

# Public Hearing

before

## THE ASSEMBLY TRANSPORTATION AND COMMUNICATIONS COMMITTEE

"Highway noise barriers"

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1994

**LOCATION:** Council Chambers  
Florham Park Municipal Bldg.  
Florham Park, New Jersey

**DATE:** September 28, 1994  
3:00 p.m.

### MEMBERS OF COMMITTEE PRESENT:

Assemblyman Alex DeCroce, Chairman  
Assemblyman Ernest L. Oros, Vice-Chairman  
Assemblyman John F. Gaffney  
Assemblyman Jeff Warsh  
Assemblyman Sean F. Dalton



### ALSO PRESENT:

Assemblywoman Carol J. Murphy  
District 26

My E. Melick  
Office of Legislative Services  
Aide, Assembly Transportation and  
Communications Committee

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**Hearing Recorded and Transcribed by**  
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**ASSEMBLYMAN ALEX DeCROCE (Chairman):** Good afternoon, ladies and gentlemen. My name is Alex DeCroce. I'm Chairman of the Assembly Transportation and Communications Committee. We're about to begin the first of two sessions today to take testimony on the matter of highway noise barriers. I'm happy today to tell you that I was fortunate enough to get Assemblywoman Carol Murphy to sit in along with us, my running mate in this district. Ernie Oros from the 19th District in Metuchen and Edison--

**ASSEMBLYMAN OROS:** Woodbridge.

**ASSEMBLYMAN DeCROCE:** Woodbridge and Edison, I'm sorry.

We'll have several others coming. Again, as I said, this is a hearing, so it doesn't require that we have a quorum of people here, but there are others who are coming. They've all confirmed that they will get here, as they can.

I'd like to make a statement: New Jersey has been building sound barriers along highways, since they were first required by the Federal government in the 1970s, to help alleviate some of the noise problems created by motor vehicles. Since that time, noise barriers have become an important issue to many New Jerseyans.

I've been contacted by my colleagues in the Legislature, the media, and a great number of people in my district and throughout the State, with various questions about these barriers. I know there is considerable concern about the cost of the barriers, and understandably so. On an average, noise barriers are costing the State about \$2 million a mile, which is no small change as the per mile transportation expenditures go.

Quality of life is another major concern. Noise created by the highway traffic can be unrelenting and unhealthy. Those with homes along highways whose lives have been interrupted by the steady roar of traffic deserve our every effort to alleviate this problem.

There is also the matter of aesthetics. I count myself among those critics who feel noise barriers are not as aesthetically pleasing to the eye as I believe they could be. New Jersey drivers and visiting out-of-staters are forced to look at these stark and barren structures for miles. Ironically, the only relief from these monotonous stretches of barrier are periodic clusters of graffiti -- not too pleasing either.

The purpose of today's hearing is informational. We hope to address these and other issues of concern to the public, to this Committee, and to the Assembly. To this end, we have invited a variety of experts to join us. Among those scheduled to testify during the session, or at our second session this evening, are officials from the Department of Transportation and the Federal Highway Administration, experts on acoustics and sound barrier design, as well as elected officials from the area. Equally important, we hope to hear from members of the public whose tax dollars support transportation projects such as these.

I expect that testimony today will range from the very basic to somewhat technical, and I would ask that you bear with us as we cover areas you may already be familiar with. This Committee welcomes anyone who would like to comment on sound barriers. If for some reason you're not able to testify between now and 5:00, we will be reconvening and taking testimony at 7:00 this evening until 9:00 this evening. We would appreciate any written copies of testimony you might have.

I'd like to also add that by virtue of today's hearing, with what testimony we can put together, we will prepare a report and, hopefully, send it on to DOT with our findings.

So with that, I'd like to call upon the first person we would like to hear from, Mr. Tom Williams, of the New Jersey Asphalt Pavement Association.

Now, the other point I'd like to make is, we have microphones that broadcast, but those mikes there do not. (indicating) So those of you who are testifying today, try to be as loud as you can so the general public behind you can hear.

Come right over here, Tom.

UNIDENTIFIED SPEAKER FROM AUDIENCE: Are we going to have a time limit?

ASSEMBLYMAN DeCROCE: Well, I would hope so. I would hope you wouldn't go beyond five to seven minutes, because we want to give everybody an opportunity to talk. Okay?

Mr. Williams represents the New Jersey Asphalt Pavement Association.

T H O M A S E. W I L L I A M S: As the Assemblyman mentioned, I represent the Asphalt Pavement Association. They are an association of manufacturers of asphalt pavements for highway maintenance and highway construction.

Really, my comments are more -- not about noise walls in particular, but about noise and how it can be controlled. Therefore, I'd like to just broaden the scope of the discussion to: How do you control noise, and can you use other things other than barriers?

One alternative to noise walls is a change in the design of the pavements. From the normal dense-graded design that is normally used by the DOT, there is what is called an open-graded design. Such a change has been documented to reduce noise from three to seven decibels in the level of road noise.

UNIDENTIFIED MEMBER OF AUDIENCE: Could you speak louder, please?

MR. WILLIAMS: The change from a dense-graded to an open-graded type design of the highways can reduce the noise level by a three to seven decibel level. Now, a three decibel level is a level that is considered a significant reduction to the human ear.

Now, we have to look at what is noise on the highways? There are really two types of noise. The predominant one is actually tire noise. This is what is perceived by most people, as compared to stack noise, or wind resistance noise, or noise of those levels. The change of the design of the roads actually has the greatest impact on tire noise.

In addition, this type of change, going to a porous type road design, has other impacts that are favorable -- not necessarily to noise, unless you consider the impact of car against car noise -- and that is safety. The open-graded, porous design tends to drain water during storms. The water actually drains through the mix or through the road, rather than over the top of it. So, where you have heavy truck traffic, you tend not to have the sprays from the tires of the trucks that comes back and impacts the automobiles.

As with anything else in life, there is always compromise. There are a few downsides to this type design. One of them is that in snow removal and ice removal they tend to have, or require a greater level of treatment than a normal dense-graded. But I think if one looks at the advantages versus the disadvantages, I think it is something we need to consider as a State as we run into fiscal constraints and have to allocate our funds to maximize the results.

In summary, I would just like to leave you with the thought that noise walls are not the only solution. We should broaden our prospectus and see what other alternatives are out there that can be used in order to satisfy the environmental needs of the community.

ASSEMBLYMAN DeCROCE: If I may, has your industry been able to perfect some sort of an asphalt finish that can ease the burden of decibel points with regard to these constant hums that we hear on these roadways?

MR. WILLIAMS: Yes, the designs do exist and have been tested, a lot of them. In fact, some of the test sections are down in the State of New Jersey. I met this morning with the material folks at the DOT. They are actually going to go out and do some testing in the near future to verify some of these changes in noise levels.

ASSEMBLYMAN DeCROCE: Now, when you put asphalt down, presently, on our major roadways-- Let's say you do a repair or you do a new construction somewhere along the line in New Jersey, would you be using these types of formations? Would you be using this type of a mix, layment, whatever you want to call it, to put down on our roads in order to ease that burden of noise?

MR. WILLIAMS: You mean right at this time, now?

ASSEMBLYMAN DeCROCE: Yes.

MR. WILLIAMS: No, this would not normally be used at this moment. Normally, a dense-graded design is used in the State of New Jersey.

ASSEMBLYMAN DeCROCE: I see.

MR. WILLIAMS: This would be a change.

ASSEMBLYMAN DeCROCE: It would be a change?

MR. WILLIAMS: Yes, it would be a change.

ASSEMBLYMAN DeCROCE: Why is there such a difference between what they use now and what you would be using

MR. WILLIAMS: Such a change in what way?

ASSEMBLYMAN DeCROCE: Why would there be a difference in the type of layment that they put down now, and this new mix, which would ease the burden of sounds or noises coming off the roadway?

MR. WILLIAMS: It is the characteristic of the design itself. If you look at a road now, if you go out in the streets or in the parking lot, it looks like a carpet -- unblemished, you know, no holes. If you looked at an open-graded mix, you would actually see holes and breaks, not

cracks, but kind of a pockmarked look to the roadway. The pockmarked look is actually where the water drains through. For whatever reason-- I cannot tell you exactly why the sound is actually absorbed and not reflected. It is absorbed by the fact that you have this pockmarked texture to the pavement as compared to a flat finish, which actually has a reflection of noise.

ASSEMBLYMAN DeCROCE: Is this finish used anywhere in the United States presently?

MR. WILLIAMS: It's used widespread in the State of Maryland. It is used selectively throughout the U.S., but it has been used extensively in Europe.

Now, I throw out Europe, and folks have to understand the European concept. The Europeans, first of all, pay like \$2.50 per gallon in tax on their motor fuels. But yet, they also have probably the best highway system and best mass transit system in the world. The funds are flowed back into them. They also tend to have a maintenance cycle that is much shorter than what we do in the U.S. Unfortunately, in the U.S. we tend to repair upon failure, rather than repair upon need. The Europeans tend to do the reverse, repair on need rather than repair on failure.

ASSEMBLYMAN DeCROCE: Well, we are trying to overcome that through the trust fund. I mean, that has been the purpose of the trust fund for several years now.

I'd like to welcome Assemblyman Jeffrey Warsh, from Metuchen; and Assemblyman John Gaffney, from Atlantic City. How about that? Thanks for coming all the way up. Do you have any questions of Tom?

ASSEMBLYMAN OROS: The cost and the comparison.

MR. WILLIAMS: The cost is a little bit more than conventional design, but not materially more. You're probably talking a factor of maybe 5 percent, 8 percent, or 10 percent.

ASSEMBLYMAN OROS: Okay. Does it last as long?



MR. WILLIAMS: It tends to last as long, yes. Actually, it tends to actually resist the impact of trucks better than some of the designs that we have down currently, so you don't tend to get the rutting that we have seen on some of our highways.

ASSEMBLYMAN OROS: You used Maryland as an example. How long has Maryland been using it?

MR. WILLIAMS: They've been using it since about the late 1980s, and the Maryland folks have-- Like anything else, you go through a learning experience. They have tried it and have had not 100 percent successes; they've had some failures. They learned from their failures and continued, and have judged it to be a very effective mixed design for all these characteristics: safety, noise, and durability.

ASSEMBLYMAN OROS: Thank you.

ASSEMBLYMAN DeCROCE: Assemblywoman Murphy.

ASSEMBLYWOMAN MURPHY: Thank you.

Mr. Williams, I had one question. Can this product be used as a resurfacing on an already existing road, or what do you have to do to the roadway in order to put this product down?

MR. WILLIAMS: It's normally used as a resurfacing. It is what we would call a wearing course. It goes on about an inch to an inch and a half in thickness. If a maintenance cycle was going through, they would go in and mill off this equivalent amount and resurface with this design to the thickness of about an inch.

ASSEMBLYWOMAN MURPHY: Thank you.

ASSEMBLYMAN DeCROCE: Assemblyman Gaffney.

ASSEMBLYMAN GAFFNEY: Yes, this open-graded type, I assume it's better traction-wise, as well, for winter driving?

MR. WILLIAMS: Yes, I did leave that out. It does tend to have what we would call better skid resistance, and it retains better skid resistance over time; whereas, a dense-graded mix can tend to become slick and lose its skid resistance over time.

ASSEMBLYMAN GAFFNEY: But it doesn't absorb moisture and melting ice and salt to the point where it lessens its life expectancy, you're telling me. Right?

MR. WILLIAMS: That's correct. It does--

ASSEMBLYMAN GAFFNEY: Why? Why doesn't it absorb more moisture, I guess, if it has openings in it?

MR. WILLIAMS: The way the design is, it actually acts as a drain. The water is designed to drain through it and then out the sides, onto the shoulder, and then drain from there. The design is not for it to retain liquid, but actually to act as a channel for it, to take it to the side of the roadway.

ASSEMBLYMAN GAFFNEY: Thank you.

ASSEMBLYMAN DeCROCE: Okay. Thank you very much.

MR. WILLIAMS: Thank you, sir.

ASSEMBLYMAN DeCROCE: We appreciate it, Mr. Williams.

Mr. L. J. Lanzerotti.

UNIDENTIFIED MEMBER OF AUDIENCE: Is that microphone working?

ASSEMBLYMAN DeCROCE: No, it doesn't work. Unfortunately, you can hear us on a mike, but you can't hear those who are testifying. I'm sorry. I don't control it. I just borrowed this facility today.

COMMITTEEMAN LOUIS J. LANZEROTTI: I have 10 copies of my testimony.

ASSEMBLYMAN DeCROCE: Mr. Lanzerotti, would you mind speaking a little louder than you normally do, so the general public may attempt to hear you?

COMMITTEEMAN LANZEROTTI: Some of my friends and colleagues believe I speak loudly all the time.

I'm a member of the Township Committee of the Township of Harding. I appear before you today with reference specifically to the widening of Route 287 through our township, and the noise situation with regard to that.

I have a prepared testimony, and I have attached to that prepared testimony a number of pieces of engineering information related to sound barriers in Harding Township.

The concern in Harding Township is that we are a community of 3600 residents, not as densely populated as a number of other municipalities along the Route 287 corridor, but there are, nevertheless, numerous residences and town homes that are severely affected by the impact of the traffic noise from this highway now, since it has been extended to the New York State Thruway, and the projected traffic load on the highway with the widening that will occur.

Now, since there had been a great deal of uncertainty in the minds of the township committee and the township residents as to the specifics of the noise situation within the township, we commissioned two specific engineering firms to: one, monitor the noise levels at a number of specific locations within the community itself to establish the noise situation; secondly, to carry out an independent traffic count of the vehicular types using the road today. Our independent traffic count is still in progress. I do not have that data to share with you today, but as soon as it is available and the data are analyzed, it will be forwarded to your Committee.

ASSEMBLYMAN DeCROCE: Send it to my office. We'll take care of it.

COMMITTEEMAN LANZEROTTI: To your office. I think it will be very important. In particular, before I go off of this second engineering study, I want to point out that informal measurements by citizens within our township indicate that the mixture of vehicular traffic, specifically large trucks on the highway at the present time, is far different and far larger in terms of truck and mixture than projected for the year 2010. We wanted to get an independent determination of that from a reputable engineering firm. That is the data that is being analyzed now and will be sent to you.

But we do have noise data available, and those are the attachments to the testimony that I gave you. Now, there are two types of noise measurements that we made -- that we asked to have made. I'm an engineer, and I spent some time thinking about this and working with individuals.

We had measurements made related specifically to tire traffic, as the last witness indicated. In addition, however-- Tire traffic is basically the types of noise that are incorporated in the Federal and State specifications for noise levels. The equivalent L10 noise levels -- the average noise levels that are computed per hour as a function of time during the day, really average out and are concerned mostly with tire traffic. However, our committee also asked the engineering firm to make measurements of specific noise events that occurred during each hour of a day. We did that on several different days at several different locations in the township.

With regard to the constant average noise levels, we find that, from numerous residences along Route 287, the noise far exceeds the 64 dB level that is required for installation of barriers. In fact, at numerous residences the noise levels are nearly constant during the course of a day at about the 73 dB or 74 dB level. That is 10 dB above the average.

It is important to point out that there is no daily respite for these citizens from the traffic noise. Oftentimes, in the engineering literature and in the discussions of noise, one does spec noise barriers to the highest noise level in a given hour in a 24-hour period, with the expectation that there will be a respite at some point -- during the middle of the day, during the middle of the night. We find that there is no respite. There is no diurnal variation of the noise throughout the day, maybe 1 dB or 2 dB at some of these locations, maybe 3 dB, but they certainly never go below 64 dB at the points where we had the measurement. Those are all in the data that you have.

Secondly, and not to take too much of your time, with regard to the noise events, we find that at some times during the day, particularly in the early morning hours starting about 3:00 and ranging until about 8:00, the number of noise events can be as frequent as one every three or four minutes. By noise events, I mean noise levels that are greater than 70 dB and are greater than 75 dB, lasting for intervals of several seconds. Those noises occur from trucks, basically, from truck sources, which includes exhaust stack emissions, braking, downshifting, backfiring, and faulty mufflers.

You all, yourselves, know that during the hours of 3:00, 4:00, and 5:00 a.m. most of us are asleep. Those types of noise waken citizens, and if they occur every few minutes -- and we have the statistics, those are in the material I gave you -- those are intolerable for the quality of life.

Based upon these independent data and the informal data that we-- Based upon these noise data -- two pieces of noise data, I emphasize -- plus the informal counts of traffic that had done, and the preliminary analysis of our traffic counts, the Township of Harding one month ago passed a resolution requesting noise barriers along the length of Route 287 within our township.

It was not without some reluctance -- not reluctance, but it was not without some questioning: the cost, questioning the aesthetics, questioning the kinds of things that you addressed in your opening statement. Nevertheless, the impacts on the citizens of the township with the projected widening of this road were felt sufficient that the township passed a resolution, and that is also attached to the material that you have.

I would be happy to take any questions that you might have on our specific resolution, on any of our data, or any other matter that addresses Harding Township's interests.

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ASSEMBLYMAN DeCROCE: The material you have, Mr. Lanzerotti, you would allow us to share with the Department of Transportation, I'm sure?

COMMITTEEMAN LANZEROTTI: Yes, indeed. That is correct. We have probably transmitted some of it informally to them prior to now, but I'm not sure that all of it had been. You can certainly copy everything I have given you today, as well as the additional information on the traffic counts when we get the final, certified levels.

ASSEMBLYMAN DeCROCE: You're aware that DOT recently won that case in court, and they will be building an HOV lane on the median area of Route 287 from just below Bridgewater, all the way up to Morristown?

COMMITTEEMAN LANZEROTTI: Well, the township was not a party to the lawsuit to which you just alluded and had taken no stance on that at all. The township has also been very concerned-- Your hearing today concerns noise barriers and the effects on noise pollution. The Township of Harding has also been very concerned about the impact from other environmental pollutants that could arise from the widening, and what, if any, measures will be taken to alleviate that. But that is not my point to address those today.

ASSEMBLYMAN DeCROCE: Okay.

Are there any questions for Mr. Lanzerotti?

ASSEMBLYMAN OROS: If they were to, in fact, put these walls up, how close would they be to houses? Is that a problem in your town?

COMMITTEEMAN LANZEROTTI: For the numerous homes that are affected, including the town homes, that is not a problem. They would be close enough-- We have had our own independent engineering firm do some analyses of the decreases in noise from hypothetical barriers that might be built, and that would be sufficient.

In addition, some of our citizens have -- you may hear this from some of them, I'm not sure, and I'm certainly not prejudging what they may discuss here -- even talked about the possibility of donation of some of their land in terms of constructing barriers, whether they be the concrete type or earthen berms, for example, on their property; using part of their property for the earthen berms, which requires more area. They are willing to discuss that, I believe, if the proper floor exists to do that.

ASSEMBLYMAN DeCROCE: Anyone else?

Thank you very much, Mr. Lanzerotti. I appreciate it.

COMMITTEEMAN LANZEROTTI: It's a pleasure to have the opportunity to appear before you today.

ASSEMBLYMAN DeCROCE: Please, once you get that information, if you send it to me, I'll make sure DOT gets it.

COMMITTEEMAN LANZEROTTI: We certainly shall.

ASSEMBLYMAN DeCROCE: Thank you.

I'd like to also introduce Assemblyman Sean Dalton, who was good enough to come up from the Gloucester/Camden area.

I'm glad to have you here.

ASSEMBLYMAN DALTON: Thank you, Mr. Chairman.

ASSEMBLYMAN DeCROCE: This is a statewide problem. We have had hearings around the State of New Jersey. This is not the first hearing that I've held. I've been anywhere between Camden, Atlantic City, and different areas of the State holding noise barrier and noise wall hearings. So this is not the first one we have held in the last several years.

Let me now call upon-- We have from the DOT -- the New Jersey Department of Transportation -- Mr. Stan Rosenblum and Mr. Andy Fekete, who will come forward to give us a statement pertaining to noise walls.

We have Committee aides with us today, Bill Maer from the Democratic Minority, Dave Brown from the Assembly Republican Majority, and, of course, Amy Melick who is our attorney from OLS.

Mr. Rosenblum, I just want to ask you if you will kind of speak up, because these mikes work here, but they don't work there. So the people want to hear exactly what you're going to say. In fact, if you want to stand up and read toward them, it's fine with me.

**A S S T. C O M M. S T A N L E Y R O S E N B L U M:** I'll sit and speak loud.

ASSEMBLYMAN DeCROCE: Thank you.

ASSISTANT COMMISSIONER ROSENBLUM: Thank you, Mr. Chairman. Members of the Committee, thank you for inviting the Department of Transportation to talk about our sound barrier program.

My name is Stanley Rosenblum. I'm Assistant Commissioner for External Affairs for the Department of Transportation. This is my first voyage out here in my new capacity, and I look forward to working with the entire Committee on this and many other issues.

With me today is Andy Fekete, our Manager of the Bureau of Environmental Analysis, which is the main Bureau responsible for progressing our noise wall program.

The construction of sound barriers is one of the most difficult issues facing the Department. In certain instances, sound barriers are essential investments necessary to achieve a quality of life we all deserve. For others, sound barriers are perceived as intrusions into community settings or as walled fortresses that deny drivers access to the sights and scenes of New Jersey. For the Department of Transportation, sound barriers present a large financial commitment, which left unchecked, would divert hundreds of millions of dollars in State and Federal funds that could otherwise be used for maintaining and improving the safety of the State's highway system.

Since 1980, the Department has constructed about 65 miles of sound barriers throughout New Jersey, at a cost of about \$138 million. This investment has improved the quality



of life for approximately 7800 households, 195 school classrooms, 7 religious institutions, and many other community facilities.

Our noise wall program to date has been limited to residential areas adjacent to limited access highways. Nearly all of the sound barriers constructed have been required to address noise problems resulting from the construction of a new highway or the widening of an existing one. These types of investments, known as Type I sound barriers, are financed with between 70 percent and 90 percent Federal funding.

While these Type I investments have proven successful, they have raised expectations from residents who are seeking to resolve their noise problems. Most of the requests that we receive for noise mitigation relief are coming from areas that are not eligible for Federal noise mitigation funds. Further, many of these requests are coming from areas where sound barriers are extremely difficult and expensive to build, or where the noise levels do not justify their construction. There is over \$300 million in pent up demand for these types of projects throughout New Jersey. Most of these requests would have to be funded through State funding resources.

Not every noise problem can be solved through a sound barrier as a solution. We screen out many areas through a rigorous acoustical testing process. Studies show that barriers are not effective when the decibel level is too low or when the affected residences are located more than 750 feet from a highway. Further, even when sound barriers are constructed, it must be remembered that barriers only reduce noise, they do not eliminate the noise.

Commissioner Wilson recognizes the need to develop a rational sound barrier policy that balances the quality of life requirements of our citizens with the need to prioritize and direct limited highway funding sources. The Commissioner has

instructed the Department to develop a policy and to seek public participation, through forums such as this, in order to gain a better understanding of our customers' needs.

Where sound barriers are not a cost-effective investment, we need to work with the local communities to determine whether other alternatives can be developed. Finally, we need to also recognize that for every sound barrier proponent, there is a sound barrier opponent. The Department and the local communities must resolve this conflict.

On a final note, while we cannot solve the quality of life problems many of our residents face today as a result of living too close to our highways, we need to do a better job at making sure that development does not occur that only further contributes to the problem.

When the Department is asked to consider sound barriers, it conducts a noise monitoring study that identifies where noise would present a problem for certain types of development, particularly residential housing, schools, hospitals, and other types of activities that are sensitive to high noise levels. We provide to municipalities a noise map that shows where certain types of development should not be encouraged. Proper land use planning and zoning can preclude many future problems. At a minimum, if development is allowed, the responsibility for protecting future residents from noise should not fall on the shoulders of the State.

With me today, as I said, is Andy, and we're here to answer general questions about the progress that we're making on our policy, as well as any specific questions you may have about any particular area of the State.

ASSEMBLYMAN DeCROCE: Let me just say that I think the biggest issue that I, as a legislator, find is that people are concerned not only with the cost and the implementation of these walls, but the time periods when these studies have been done in order to determine where each of these walls will be

placed. It seems to be the biggest concern of most people, because they feel the studies were done so far back, and the modelings that were done may not be appropriate for today's use of the highway. Frankly, in certain cases, I think that may be true.

ASSISTANT COMMISSIONER ROSENBLUM: I think we recognize that, and, in certain instances, we have gone back and reevaluated that. Clearly, if there is a local community that has legitimate concerns, the Department will look at those and reevaluate.

ASSEMBLYMAN DeCROCE: When you say that-- But I understand that this particular community -- Florham Park -- had asked DOT to readdress the noise barriers in this town and, I believe, it was done, supposedly. I don't know, because I think I just saw the memo which indicated that the noise levels did conform to the proposals and the barriers that were put in place. Is that true?

A N D R A S F E K E T E: This is the question on, off Route 24?

ASSEMBLYMAN DeCROCE: Yes.

MR. FEKETE: Yes, we've done studies in that area. We went back and did some measurements and, in fact, the predictions in that particular case were very close to what, in reality, is there today. But, as Stan was saying, there are cases-- One example is, along Route 287 -- the section which we just opened for traffic -- there are still some questions and problems out there that we have agreed to go back and take a look at. There are some problems in trying to get everything straight, as far as some of the people's concerns that still are out there on Route 287.

ASSEMBLYMAN DeCROCE: Are you talking about the Riverdale section?

MR. FEKETE: There are a couple of sections. I don't know all the areas. But there are a few sections of Route 287 we just opened, where we will be working to--

ASSEMBLYMAN DeCROCE: Because in that section -- the Kinnelon/Riverdale/Wanaque area -- where the wall was blasted away, obviously that noise-- There are certain noise walls there, but still that sound bounces against that rock and probably exceeds the walls.

MR. FEKETE: Yes, there are a couple of areas where there have been folks who aren't very satisfied with what we've done. What we have agreed to do is to go back and take a look at the corridor and see what we can do that, perhaps, we haven't done. That work is starting up and should take about--

ASSEMBLYMAN DeCROCE: Okay. What do you do now? Do you talk with the local engineer in a municipality, when you check a certain location to make sure that these levels are either equivalent, or higher or lower?

MR. FEKETE: In this particular case, there are residents who have brought these problems to our attention. In some cases, we've actually worked with the residents. Often we work with the township officials, the engineers. The exact format, in terms of how to interact with the public, will be part of our program to sort of make sure that we're talking to the right people while we're solving these problems. So, once again, on Route 287 -- the section we opened -- we know there are some problems out there, and we're going to go back, take a look at them, and make sure we're working with the right folks to address them. That includes, obviously, the folks who are being affected by the traffic.

ASSEMBLYMAN DeCROCE: Did you happen to do this stretch here on Route 24, by the way?

MR. FEKETE: When you say, "do," meaning?

ASSEMBLYMAN DeCROCE: Restudy it.

MR. FEKETE: Oh, okay. We looked at-- As you mentioned earlier, we went out there and measured, or sort of verified, our noise predictions, and they looked pretty good.

But, once again, if there are any problems, if there are concerns, we need to hear about them because there may be things we can do.

ASSEMBLYMAN DeCROCE: My concern is that you do have an official of a governing body, when you do these studies, that you can report to, not just a group of citizens.

MR. FEKETE: Yes. Absolutely.

ASSEMBLYMAN DeCROCE: I think that is good, too. I think you should speak with the people who are most directly influenced by the noise. But I think somebody, officially, should know that you're out there and know what you're doing. Because, frankly, there have been people in this town who have said that, despite the fact that DOT has done these tests and reached certain levels -- they have done, through their own engineers, tests that have exceeded these levels and, frankly, were in conflict.

MR. FEKETE: Right, I understand. One of the things about noise is, it is not a very simple and very straightforward situation. So, you're absolutely correct. We will coordinate with the township officials to make sure that everybody is apprised of what is happening.

ASSEMBLYMAN DeCROCE: Okay.

Does anybody have any questions?

ASSEMBLYMAN OROS: I have one.

ASSEMBLYMAN DeCROCE: Assemblyman Oros.

ASSEMBLYMAN OROS: Yes, the gentleman just testified that he might be favorable, in his township, for having these walls constructed. When a request like that is put in, roughly how long does it take for the DOT to act?

ASSISTANT COMMISSIONER ROSENBLUM: To act on studying the situation?

ASSEMBLYMAN OROS: Yes, roughly, just a rough idea.

MR. FEKETE: Well, okay. In this particular case, to go back and sort of take a look at a problem that is associated

with the new construction? Well, some of it has to do with resources, obviously. For us to just quickly go out there-- We can send somebody out and take a quick look, but to really determine a problem -- to actually take the measurements and then reduce it down to a solution, a proposal -- we need to get somebody out there and set up some monitoring equipment.

ASSEMBLYMAN OROS: Andy, what I meant was, if a town, like Mr. Lanzerotti's, requests--

MR. FEKETE: This is in Harding, along Route 287?

ASSEMBLYMAN OROS: Yes. What would be the response of DOT.

MR. FEKETE: In this particular case, in Harding Township along the HOV widening project, we've already done our work. What we're doing now with the Township-- The work was done as part of the studies for widening Route 287. We have actually done that work, the noise modeling is finished, and we have areas where we are proposing to build noise walls. There are some questions, however, in areas where we're perhaps not building them because of their extreme cost per resident and so forth. We are working with Harding Township. There is an ongoing dialogue, and we will continue to work with them. There are some very good suggestions that were made, and I think maybe we can, hopefully, find some common ground to solve the problem. So in this particular case, we're already working with Harding. We will continue to do so and try to get a satisfactory resolution to the problem.

ASSEMBLYMAN OROS: Okay. But then, if another community asks that hasn't had a study, within a reasonable amount of time your people go out and talk to the administrations that are in--

MR. FEKETE: Yes, we can go out there and send some folks out there as soon as we can. Absolutely.

ASSEMBLYMAN DeCROCE: Assemblyman Warsh.

ASSEMBLYMAN WARSH: Thank you, Mr. Chairman.

First of all, Stan, congratulations on your duty expansion.

ASSEMBLYMAN OROS: Yes, that's right, congratulations.

ASSEMBLYMAN WARSH: It's going to be nice to see you in a dual role now.

ASSISTANT COMMISSIONER ROSENBLUM: I hope congratulations is the right word.

ASSEMBLYMAN WARSH: Just really a comment, more than a question: As you know, we had Commissioner Wilson come to the 18th Legislative District, down in East Brunswick, and take a look at a particularly troublesome site that we have, that we believe should be sound-barriered. But we're going one step further in the 18th District. I know for the last two years, in the prior administration -- pardon the pun -- I was really banging my head against the wall with the DOT to take a look at alternative technologies.

ASSEMBLYMAN DeCROCE: That's true.

ASSEMBLYMAN WARSH: Now, I apologize for getting here a little bit late. I don't know if we've discussed the alternative technologies at all?

ASSEMBLYMAN DeCROCE: No, we haven't.

ASSEMBLYMAN WARSH: What I've been arguing is that \$2 million a mile and two years to design and build a sound barrier is more reminiscent of a lunar module program, not erecting barriers in the State. What we should look at are alternate technologies, and along comes Frank Wilson, our new Commissioner, and he said, "Amen to that," and is actually exploring technologies. From what I understand, you're actually erecting a recycled plastic wall, right on the DOT grounds, to see how it can be done -- how quickly, and how inexpensively it can be done.

That is great news for those of us all over the State of New Jersey who, knowing that we have a finite amount of resources, would like to be able to get more out of those

dollars than we have been getting to date. Concrete and steel, in my opinion, in most applications is an unconscionable waste of money. I'd like to see more of that, particularly with respect to the East Brunswick situation. We're looking at being able to use recycled plastic, and as the home of the State's largest sanitary landfill, we'd like to see that actually put into sound barriers and not into a sanitary landfill. What it would afford us, everyone in the State, is not only less expensive noise walls, but noise walls that will actually grow green, which is nice.

One of the things that I hear as one of State's strongest proponents of noise barriers is, "They're ugly. I used to be able to drive through Morris County" -- I have friends in Morris County -- "and see these beautiful vista views, and now my view is disturbed by these horrible walls." Now, I personally think that the people's quality of life behind the walls is much more important than a driver's view when he or she is on Route 287, but we still have to-- Perception is reality, and if that is the perception that people have, it's a reality we have to deal with.

I think the green walls are something that would be able to not only accomplish the goal of doing it less expensively, but, obviously, do it in a way that is more conducive to the view, if you will, as they're driving by it. So, I'm thrilled at least with our first meeting with the Commissioner, who seemed very receptive to new technologies, which is a sea change in attitude at the DOT and one that is long overdue. So kudos to the Department, and I look forward to working with you on this important program.

ASSISTANT COMMISSIONER ROSENBLUM: Thank you.

ASSEMBLYMAN DeCROCE: Does anyone else have any questions of the Department?

You're going to stay here, aren't you, during this evening? (affirmative response)

Sean, you had some questions?



ASSEMBLYMAN DALTON: Yes, I had one question. I have a copy of the project list with respect to the sound barriers, and I note that one of the projects is on the Route 42 Freeway. It indicates that they are on phase four of the stage of study, and I was just wondering -- just so I can anticipate some questions I've received back home -- how long before construction would start on that one?

ASSISTANT COMMISSIONER ROSENBLUM: Can we get back to you on that?

ASSEMBLYMAN DALTON: Sure, no problem.

MR. FEKETE: I didn't bring the list, I'm sorry.

ASSEMBLYMAN DALTON: I thought since I had you here--

ASSEMBLYMAN DeCROCE: Okay. Anyone else, if not--

ASSEMBLYMAN WARSH: Alex, I'm sorry. I did have one question in addition to the comment. The Commissioner's comments about reevaluating the program have caused me some concern, because the project that is scheduled to go on Route 287 from Bridgewater down to where the Turnpike egresses off of Route 287 -- it cuts through, obviously, Edison, Metuchen, the heart of the 18th District-- We're scheduled to start in 1997, being the seventh priority project on that list. Is that project itself going to be reevaluated, or do we get under the wire?

ASSISTANT COMMISSIONER ROSENBLUM: I believe that all the existing commitments, the guaranteed commitments that have been made, will be maintained and that the policy looks at these additional requests that are coming in. I guess the success of noise walls-- One of the problems with having a success is that more and more people are seeking these noise walls where they may or may not have problems. It's putting tremendous pressure on the Department in terms of financial resources, where noise walls work, and how effective they can be.

ASSEMBLYMAN DeCROCE: Let me ask you a question, though. If I heard him right, are they considering noise walls from Bridgewater down to the Turnpike?

MR. FEKETE: Maybe we can clarify. What you are referring to is the Type II list, the retrofit projects.

ASSEMBLYMAN DeCROCE: What is a retrofit? Tell me what that is.

MR. FEKETE: Okay. I'll explain that, because there is a lot of confusion. Noise walls to everybody are essentially noise walls; they're along the highways. But there is a subtle sort of a category that, I think, needs to be understood. Most of the noise walls that you see here in New Jersey today, except for three projects, were built in association with new projects; new freeways, new interstate--

ASSEMBLYMAN DeCROCE: Those are Type I barriers.

MR. FEKETE: Those are Type I. They are the ones that the Federal government requires us to evaluate the noise impact and then to try to build noise walls associated with construction of those freeways or highways, because there, we are creating an impact on residents and that is why they are there.

The other ones are what we'll call retrofit, Type II. The language comes out of Federal regulations. Those are the ones -- there is a list of projects which have been sorted into various categories, and we're pursuing that list. The particular case here, on Route 287, is one of those projects on this list. But these Type II projects are not associated with roadway construction. They are aimed at going back to an area to see what we can do to fix a problem along an existing road, but not as part of a new construction project.

ASSEMBLYMAN WARSH: The key distinction being dollars. Type I is, what, 80 percent to 90 percent Federal reimbursement; Type II is all on the State, 100 percent State funding?

MR. FEKETE: Yes, exactly. Answering Assemblyman Warsh's question with regard to commitments, we've been studying these corridors -- these many corridors, and that particular one is one of them. The question is: What will these policies do to these ongoing studies? There may be some technical-- For example, the new technology you mentioned, there are going to be some things that we can do that perhaps weren't on the board before. Those things would certainly be folded into some future effort. Or in some cases, there may be some situations where some technical details in terms of how to interpret some of the standards -- the engineering standards -- will be on the table. So the bottom line is, we want to make the best of what we know and fold that into the future work.

ASSEMBLYMAN DeCROCE: Frankly, bottom line, I want to know what you're planning to do there before you guys get going, because I'm going to tell you something: Unless I'm wrong, from Bridgewater all the way down to that particular area -- I don't want to hurt this young fellow -- is a lot of industrial area there. I don't see why you would need any kind of a wall, frankly.

MR. FEKETE: Let me help you with that. Certainly, we wouldn't just put a wall and just say, "From here to here," these are studies, these are studies. The first thing we would do is look at the area and figure out where the people live in regard to the roadway. Then we would make some noise measurements and some noise predictions and find out where the noise impacts are. Then we would start to look at placing -- on the computer -- some theoretical noise walls to see what the noise reductions would be.

So in none of these corridors are we saying that we're going to build a wall from point A to point B, because, as you point out, many of these would be industrial. No one would be living there, so forth and so on. But we've got these

corridors, and within those corridors, there are some areas that might be sensitive to folks. Those are certainly the areas that we would be looking at.

ASSEMBLYMAN DeCROCE: I see.

Okay. Any other questions of the Department? If not, I'm going to call on someone else. (no response)

You'll be here, right, in case anyone has any questions?

MR. FEKETE: Yes.

ASSEMBLYMAN DeCROCE: Mr. Robert Michaels, Planner of the Borough of Florham Park.

Thank you, Mr. Michaels, for coming.

R O B E R T   A .   M I C H A E L S: Thank you.

Since the issue was brought up with the last witness, concerning the study that was done for Route 24 in Florham Park, I wanted to clarify some of that for the Assemblymen and the Committee here.

The Borough had engaged, through myself and the township engineer's office, an acoustical engineer to do a study of the potential noise impacts of Route 24. This was begun before Route 24 opened. Actually, the acoustical engineer took sound readings just a few weeks before it opened, but when the highway was substantially completed in construction. So we wanted to have really good preconstruction, or preoperation, data to compare to postoperation data. Those were taken in early November of 1992. Then, subsequent to that, we took readings at the same location in April of 1993 and May of 1993.

That data was then forwarded on to DOT to show the actual readings and the actual results. In our opinion, and in the opinion of the acoustical engineer who was retained by the Borough, we felt that criteria was met that warranted noise walls in a location where they were not installed.

We received back from DOT a response that they had done further study, and it was their opinion that the criteria was not met. But I believe that they based their criteria on their own preconstruction data, which was not done at the same location that ours was, and it was not done when the highway was constructed, but even before, I think, design of the highway.

The criteria that we felt that was met and that we had the data for, showed that there was a 10 decibel level increase between the preoperation and the postoperation of the highway. We forwarded that to DOT, and even with their-- They took additional figures, or readings, in May of 1994, and even using their readings it shows that criteria was met; that there was a 10 decibel increase before operations and after operations.

I'm not sure where this is right now, between the Borough and DOT, but we feel that in these locations, sound barriers are warranted.

ASSEMBLYMAN DeCROCE: Do you have extra copies of your findings?

MR. MICHAELS: Yes.

ASSEMBLYMAN DeCROCE: Could I get a set, not necessarily today, but could you send them up to us?

MR. MICHAELS: Definitely. Yes, we can.

ASSEMBLYMAN DeCROCE: So we can then discuss this further with the Department and get a clarification as to exactly where they are with regard to your quest.

MR. MICHAELS: We would be happy to.

ASSEMBLYMAN DeCROCE: Are there any questions of the planner -- anyone here? (no response)

Thank you very much.

MR. MICHAELS: Thank you.

ASSEMBLYMAN DeCROCE: Mr. Michael Pucilowski, Township of Parsippany-Troy Hills, Township Engineer.

Could you be as loud as you possibly can, so the people here can hear as well. Thank you for attending.

**M I C H A E L   P U C H I L O W S K I:** Thank you for being here.

**ASSEMBLYMAN DeCROCE:** Loud, Mike.

**MR. PUCHILOWSKI:** Okay.

Assemblyman DeCroce and members of the Transportation and Communications Committee--

**UNIDENTIFIED MEMBERS OF AUDIENCE:** Louder, louder.

**ASSEMBLYMAN DeCROCE:** Louder, they can't hear you.

**MR. PUCHILOWSKI:** That's not loud enough? All right.

**ASSEMBLYMAN DeCROCE:** He's a mild mannered fellow, I can tell you. He's our town engineer, and I can tell you, he's a very quiet guy.

**ASSEMBLYWOMAN MURPHY:** Alex, does he want to stand here and use this mike?

**ASSEMBLYMAN DeCROCE:** Why don't you use one of these mikes? (gesturing)

**HEARING REPORTER:** Those are for recording only.

**ASSEMBLYMAN DeCROCE:** Why don't you stand up in front of the room and project?

**MR. PUCHILOWSKI:** All right. I'll make believe it's a bad crowd, and I have to speak loud.

"Highway noise is a serious concern for the residents of Parsippany-Troy Hills and many residents of the State of New Jersey. My office constantly receives inquiries asking when are sound walls going to be installed on Route 80 or Route 287. Phone calls have even been received requesting sound walls along Route 10.

"For residents who are affected by highway noise, sound walls are a blessing. They provide the ability to have normal conversations in one's yard; your home no longer rattles or shakes; a good night's sleep becomes possible again. However, to others, these walls represent barriers or tunnels. They are miniature versions of the Great Wall. These walls

detract from the natural landscape, cost too much money, and it is believed they don't work as well as trees. Everyone believes this because you can still hear the highway noise.

"The Township first heard the controversy several years ago, when sound walls were proposed for a section of Route 287 in Parsippany. The NJDOT required a resolution from the Township Council approving the locations. The Council first received a petition signed by the residents in the area in favor of the wall. Then, a second petition was submitted opposing the walls. Some residents had signed both petitions. Finally, the Township commissioned the Engineering Department to conduct a door-to-door, nonbiased survey of the residents affected. The survey produced a resolution approving a portion of the walls and rejecting other sections.

"The question posed is: Who is right? Credence has to be given to both sides. Do the walls reduce the noise level? Yes, they do. The New Jersey DOT--

UNIDENTIFIED MEMBER OF AUDIENCE: We cannot hear anyone who is speaking up there, please. Back here, we're all stone deaf.

ASSEMBLYMAN DeCROCE: Can you turn around and--

ASSEMBLYWOMAN MURPHY: Alex, are these microphones the ones that amplify?

ASSEMBLYMAN DeCROCE: Yes.

ASSEMBLYWOMAN MURPHY: Come over and stand here.

MR. FABRIZI (OLS Staff): He has to talk into the recording mike.

ASSEMBLYWOMAN MURPHY: Well, here, he can record into this one too, can't he? Will this do both? If it does it for me, won't it do it for him?

HEARING REPORTER: Yes.

ASSEMBLYMAN DeCROCE: Then let him speak through that.

ASSEMBLYMAN GAFFNEY: Carol, put it up on the--

ASSEMBLYWOMAN MURPHY: Okay. Speak with both of these.

MR. PUCHILOWSKI: All right. Great. Would you like me to start over?

ASSEMBLYMAN DeCROCE: Is this better? Can you hear him out there now?

ASSEMBLYWOMAN MURPHY: Say something.

ASSEMBLYMAN DeCROCE: Try it, get closer.

MR. PUCHILOWSKI: "The Township heard the controversy several years ago, when sound walls were proposed for a section of Route 287 in Parsippany. The NJDOT required a resolution from the Township Council approving the locations. The Council first received a petition submitted by the residents in favor of the walls. Then, a second petition was submitted opposing the walls. Some residents had signed both petitions.

"Finally, the Township commissioned the Engineering Department to conduct a door-to-door, nonbiased survey of the residents affected. The survey produced a resolution approving a portion of the walls and rejecting other sections.

"The question posed is: Who is right? Credence has to be given to both sides. Do the walls reduce the noise levels? Yes, they do. The NJDOT has conducted studies to prove this. Their video, which is shown at public information meetings, clearly shows this. Are the walls ugly and out of character for their surroundings? Yes, they are. Are they expensive? That they are, also. So what can be done? Is the information confusing and sometimes counterproductive? Yes. Maybe the DOT video should be more widely used and more widely distributed.

"First, the NJDOT and the State of New Jersey must investigate other types of sound walls. Lighter materials can reduce overall construction costs. Materials that are more aesthetically pleasing or blend in better with the natural surroundings will minimize opposition to the walls.

"Secondly, increase the landscaping. A wall covered with ivy, with trees planted in front of it, works wonders. No one complains about the sound walls along Route 287 in Hanover



Township. Plant more ivy, don't skimp. Also, plant a mixture of evergreens, trees, and shrubs. This helps to reduce the tunnel effect. People would be more accepting if the walls were covered by rapidly growing ivy, etc., not slow growing trees.

"In addition, a better program of general education is needed for the public at large. There is a great deal of confusion about the scientific studies that reveal the efficiency of the sound walls. The DOT would be well-advised to produce easy to understand figures showing the advantages of sound wall materials versus the use of trees and other natural materials that the public believes effective. These should be presented in publications and other easily distributed means of communication.

"Finally, if there is a statewide plan or a design for sound walls, this should be discussed and widely disseminated. At present, the public's view of all this construction is one of hit-or-miss, ad hoc work. While this probably is not the case, it is the only conclusion that can be drawn from the available evidence."

This letter is from the Mayor of Parsippany-Troy Hills, Dr. Joseph Weisberg.

ASSEMBLYMAN DeCROCE: Thank you very much, Michael.

Does anybody have any questions of the Engineer?

ASSEMBLYMAN OROS: Yes. I have one.

ASSEMBLYMAN DeCROCE: We have one question from Assemblyman Oros.

Could you hear him back there? (affirmative response from audience)

ASSEMBLYMAN OROS: There is a statement in here that says, "Your home no longer rattles or shakes." Is that true?

MR. PUCHILOWSKI: We've had residents who have complained and been to some of the DOT meetings on sound walls, where, because of the trucks, their homes were shaking and

rattling, and after the walls were up, they didn't. Now, there may be also-- Because of the road resurfacing, some of the bumps were removed and, so, the trucks weren't making as much noise, and the perception was that the house wasn't shaking or rattling.

ASSEMBLYMAN OROS: Thank you.

ASSEMBLYMAN DeCROCE: Okay. Anyone else?

Thank you very much.

Mayor Barbara Hall, Borough of Chatham.

Thank you for attending. Could you come up here and speak into these mikes? Unfortunately, Mayor-- We're trying to rectify this with the Township of Florham Park.

ASSEMBLYWOMAN MURPHY: Barbara, how are you?

**M A Y O R   B A R B A R A   L.   H A L L:** Fine, how are you?

If only Route 24 had been completed when it first went on the maps, none of us -- a least a good portion of us wouldn't be here.

Chairman Alex DeCrocce and members of the Committee, I am Barbara Hall, Mayor of the Borough of Chatham. I represent the many residents of the Borough who have contacted me with their ongoing discomfort resultant from the Route 24 noise levels.

Route 24, west of Millburn, has been open for nearly two years. It is a seemingly heavily traveled highway 24-hours-a-day, by both passenger vehicles and trucks. It is also a speedway.

During the spring of '93, complaints were either voiced or written to me, by then Senator Brown, Assemblyman DeCrocce, and then Assemblyman Martin. There also was a petition with 66 names of residents requesting sound barriers, in addition to the two barriers in place.

A meeting was held on June 17, 1993, with Christine Johnson, Assistant Commissioner of NJDOT and others of the NJDOT staff. This meeting included representatives from

Florham Park, Madison, and Chatham, in addition to our legislators. We were advised that there would be a noise study made during the spring of 1994.

Complaints about excessive noise continue to come into my office, indicating that the traffic noise from the highway is prevalent not only during the summer, but also is sufficient to awaken residents in the early morning hours even though windows are closed.

I visited the areas impacted by traffic noise during '93 and, again, on January 3, 1994 with Assemblyman DeCroce. To reinforce my recollection of the traffic noise, I again walked along these streets this morning.

Noise level, as per page 10 of the "Noise Measurement Study, Route 24 Freeway Up-Date, Chatham, Florham Park, Madison, and Hanover, Morris County" NJDOT, June 1994, shows equipment sound levels in the dB, and conversational speech is listed in the 60 to 70 dB range.

One of the residents took this measurement in my office as we discussed the Federal and State guidelines for justifying sound barriers. Although we were speaking quietly, our conversation registered 67 dB. Conversation does not usually continue on a 24-hour basis, but trucks do, 24-hours-a-day, 365-days-a-year. Truck noise is the most offensive, and it is compounded by the fact that, in Chatham, these trucks roll on over the Passaic River Bridge hitting the bridge with unbearable banging, waking residents during the night.

The study did not provide any measurement on North Hillside Avenue, nor on University Avenue sections, where there have been numerous complaints. The residences here are probably doubly impacted due to the curve in the highway in addition to the bridge. Then Assistant Commission of NJDOT, Christine Johnson, indicated that nothing could be done to address the levels of the bridge. I urge you to revisit this situation, in particular.

I have enclosed a map and a letter from a resident, in addition to a response letter from Christine Johnson.

Thank you for the time you have given to our residents and to me.

ASSEMBLYMAN DeCROCE: Thank you, Mayor. Could the Committee have your remarks?

MAYOR HALL: They have it, complete with a few typos.

ASSEMBLYMAN DeCROCE: Secondly, did you contact DOT about your request with regard to the bridge?

MAYOR HALL: Yes, and I included the response that I received in the package.

ASSEMBLYMAN DeCROCE: I see.

ASSEMBLYMAN GAFFNEY: Recently?

MAYOR HALL: No, recently I haven't contacted her.

ASSEMBLYWOMAN MURPHY: That was when Christine Johnson was--

MAYOR HALL: It was in '93, and she did respond, but-- That response, as I said, is included.

M U R R A Y   B L A N K: (from audience) Mr. Chairman, so far we have heard from five, six, or seven people, all of whom are in favor of the sound barriers. To date, we haven't heard from one person who--

ASSEMBLYMAN DeCROCE: Why don't you give us a chance, sir? We're not leaving; we're going to be here.

MR. BLANK: I would think a little bit of a balance--

ASSEMBLYMAN DeCROCE: This is a hearing. I have to give everybody who asks an opportunity to speak, and I'm going to do that.

MR. BLANK: A little bit more balance, I think, would be in order.

ASSEMBLYMAN DeCROCE: I'm doing them in the order I got them. I don't know who is for or against anything, to tell you the truth. As I call you, you'll get both.

MR. BLANK: Okay.

ASSEMBLYMAN GAFFNEY: Alex?

ASSEMBLYMAN DeCROCE: Yes, is there a question?

ASSEMBLYWOMAN MURPHY: Yes.

Barbara, you're here as Mayor of Chatham Borough. You are also President of the Morris County League of Municipalities. Has that organization expressed any view as a body relative to this, or is it coming in from each municipality?

MAYOR HALL: No. We haven't really discussed this at all. There are too many different highways.

ASSEMBLYWOMAN MURPHY: But might I request that the League take a look at this as a larger unit? Since one of the things that the DOT did say -- and it is certainly true -- is that while this began, if you will, looking at new construction, we're now being requested to put this kind of structure on old construction. As the Mayor of Parsippany noted, it does sometimes -- certainly to the driving public, certainly to me -- have an appearance of being like topsy. They suddenly pop up in places, and it's a little bit confusing.

Perhaps if an organization like the County League of Municipalities, which is an organization of all the municipalities in the county meeting together on a regular basis, perhaps if it were looked at as the county as a whole, each town might identify areas that they feel are important or something, so you begin to get a sense of how much of the county is going to be walled, as opposed to dealing with one road at a time or one problem at a time. Does that-- To get a larger picture?

MAYOR HALL: Yes, but I gather that people have come here with problems relating to Route 287, which is part county, and other highways, as you were saying, in addition to. There is no reason why we can't address that. But I think what you're hearing, and what you will continue to hear is, there

are those who drive along the roadways and do not like that feeling of being walled in. At the same time, there are people who live where the land was developed, perhaps before the highway, perhaps after, and those people are impacted. If DOT can come up with a solution that could make everybody a little happier-- I'm not sure, because even retrofitting-- The list that we learned-- Alex called that meeting, I believe, on June 17, 1993, at which we were told the waiting list is about 11 years.

ASSEMBLYWOMAN MURPHY: But I think the other thing the DOT did say, though, was that, if indeed, there can be some acknowledgement of an area -- if municipality zoning will take into account where noise impacts are higher-- If the DOT is doing noise studies on highways, can't there be some kind of agreement among all the towns in the county, looking at it as a regional thing of where the noise impacts, where a municipality will not look to put residences, so that we don't end up with this sort of thing forever and ever and ever.

MAYOR HALL: That would be very good for regional planning, there is no question.

ASSEMBLYWOMAN MURPHY: Well, that is what the League of Municipalities is, Barbara.

MAYOR HALL: And Morris 2000.

ASSEMBLYWOMAN MURPHY: Right, but the League is also, and maybe will be the starter for looking at that.

MAYOR HALL: Could be.

ASSEMBLYMAN DeCROCE: Okay. Are there any other questions for the Mayor? (no response)

Thank you, Mayor.

MAYOR HALL: Thank you, Alex.

ASSEMBLYMAN DeCROCE: We appreciate you coming.

Mr. Ed Cohen from East Brunswick Township.

Mr. Cohen, I understand that this microphone right over here works now. (indicating table)

**A D R I A N N E   E I S N E R:** My name is Adrienne Eisner. I'm also from East Brunswick Township, so we thought it would be better if we spoke at the same time.

**ASSEMBLYMAN DeCROCE:** All right, both of you can come up. Sure, not a problem.

**E D W A R D   C O H E N:** My name is Edward Cohen. I'm the former Chairman of the Planning Board of East Brunswick, former Chairman of the Turnpike Ad Hoc Committee, and presently Chairman of the Traffic Advisory Board in East Brunswick. Adrienne Eisner is an Assistant Administrator in the Township. She would like to read a statement to start off.

**ASSEMBLYMAN DeCROCE:** That's all right. Read into that microphone, please.

**MS. EISNER:** Okay, thank you.

**ASSEMBLYWOMAN MURPHY:** Can you all hear?

**UNIDENTIFIED MEMBERS OF AUDIENCE:** No.

**ASSEMBLYMAN DeCROCE:** Can you hear? (negative responses)

Then you'll have to come up here, I'm sorry.

**MS. EISNER:** I'm here today to give you some of the history that we have had in East Brunswick relative to noise barriers, and really to report what we believe is a success story in East Brunswick with the installation of noise barriers by the Turnpike Authority.

In 1987, the Township of East Brunswick reached an agreement with the New Jersey Turnpike Authority relating to their proposed widening, from six lanes to ten lanes, from Exit 8A to Exit 9 on the Turnpike. This agreement came as a result of significant community opposition to the widening project, much the same type of information you're hearing from the communities now who are reporting their concerns, and, basically, because of the environmental impact of the widening. There was even the threat of a possible lawsuit from the Township.

Consequently, the Turnpike Authority agreed to construct noise abatement devices -- sound barriers -- in accordance with the FHWA Standards at that time, which was a 67 decibel level criteria. The agreement also stipulated that the Turnpike Authority would consult with the Township's noise consultant as to the type, design, and appearance of these barriers.

Throughout the process of the widening of the Turnpike and the construction and design of the noise barriers, there was significant community input by the residents of East Brunswick, who had formed a Turnpike Ad Hoc Committee. I was staff to that Committee for a few years during that period. The result was, in 1991, when construction of the noise barriers was completed, sound measurements were made at 35 test locations by the Turnpike's noise consultant, in the company of our township noise consultant. The result was that all levels met the 67 decibel criteria at that time.

Also, as part of our agreement, there was landscaping that was performed by the Turnpike contractors on the residence side of the barrier. We had about 125 homes that were within 200 feet. The structure of the home was within 200 feet of the outer pavement of the highway, so the actual barrier was constructed very close to the right-of-way line between the Turnpike and the homeowners property.

The feedback from the homeowners after the installation of the barriers has been extremely positive, in terms of the fact that the noise mitigation has significantly improved the quality of life for the residents who live along the Turnpike. Their backyards are now useable, which was not the case prior to this construction. We've had positive remarks about the aesthetics of the noise barriers as well.

We believe that the involvement of the community and the responsiveness of the Turnpike throughout the project to the community's concerns was very important in this whole project.



Looking ahead, we are very concerned now, as Assemblyman Jeff Warsh has mentioned, about the impact of the expansion of Route 18 and the impact of that widening on the quality of life for the residents who abut that area. I was very pleased to have been present when Commissioner Wilson visited the Township.

Recognizing the high cost of the concrete noise barriers, we certainly hope that alternatives can be researched and developed, especially the replastic lumber, which we had been looking into with Rutgers, prior to the involvement of the State. We hope that this project will move along, and we offer our assistance as a Township in any way that we can offer to the State in developing an effective noise barrier that is also aesthetic and cost-effective for the Route 18 area in East Brunswick.

Thank you.

ASSEMBLYMAN DeCROCE: Thank you very much.

Are there any questions of Ms. Eisner? (no response)

Mr. Cohen?

MR. COHEN: I have some additional information.

ASSEMBLYMAN DeCROCE: Why don't you come up here then? (indicating other microphone)

MR. COHEN: I think-- Is it working now? (affirmative audience response) If I get up close to it, I think it's good enough.

Let me just elaborate a little bit more on what Adrienne has stated. Number one, the barriers that were built in East Brunswick, we feel, are the most attractive barriers from not only the roadway point of view, but the citizens' point of view. There are two sides, obviously, to each barrier.

I think that this State has to develop standards and criteria for sound barriers. This State is noted for its highway development. We have the "Jersey Barrier," which is

the center median barrier. It's known all over the country. It's used; it's called the "Jersey Barrier." It is the device that prevents cars from going from one lane to the other.

We have to do exactly the same thing when it comes to sound barriers. The Turnpike spent many years with us developing an aesthetically and sound-effective barrier. They put some criteria on, and have established criteria which, I think, are important for you to look at in your deliberations.

One is that the barrier must be constructed in an area that will have a minimum of 4 dB difference. So if construction of the barrier does not mitigate the sound by more than 4 dB, they won't put the barrier up.

The second thing is the cost-effectiveness. They state that the construction cost per dwelling unit of proposed noise barriers must be less than \$45,000 per dwelling unit to be protected. I think you've got to have a State standard for that. I think there should be some type of input from the Legislature to the Department of Transportation about cost. Because it is our money, the taxpayers' money, that the Department of Transportation is using, I think it behooves you to put that down in some type of criteria.

I think the other thing is the land use. East Brunswick, after this fight with the Turnpike and in conjunction with the Turnpike, put through a land use ordinance that prohibits construction of any new dwelling without sound protection.

Therefore, we put the onus now on any developer who comes near any major road to make sound measurements and protect that dwelling -- residential dwelling, we're talking about -- from any existing road. So, therefore, the State will not be required to-- Any new dwelling, since 1987 I think that land use ordinance was passed-- On any construction built since then, there has been sound measurements made and

construction made-- By the way, our sound measurements are made at the second floor, because we feel that the bedroom is the most important point to make sound measurements.

I think there is another place that legislation should be looked at; to require every township to put this in their land use ordinance and say, "We're not going to pay for new homes to be put in without respect to sound measurements," and make sure we have a uniform policy throughout the State.

ASSEMBLYMAN DeCROCE: Thank you, Mr. Cohen.

Does anybody have any questions of Mr. Cohen.

ASSEMBLYMAN WARSH: Just a brief comment, Mr. Chairman, because I know we're under tight time restraints.

But, I just want to praise East Brunswick, one of my favorite communities in the district. East Brunswick traditionally takes what happens in other towns and goes a little bit further. With respect to the land use ordinance that Mr. Cohen spoke about, I would encourage all municipalities that are here today -- and wherever I go I speak to that issue -- we have to clean up the mess from the past, but we should not tolerate this kind of activity going on in the future. We need to get out of the sound barrier business, and we could do that through proper land use controls. That is exactly right on point in East Brunswick.

The other point is, with respect to the new noise barrier project that we're attempting to attract, East Brunswick put their money where their mouth is, and they appropriated \$300,000 which is sitting in an escrow account waiting for that.

That is something that the DOT, I've heard rumored, is considering making the criteria; that if you want the DOT to come in on a Type II sound barrier that gets no Federal reimbursement whatsoever, that you have to be prepared to ante up some of your own money. If it's important, it's important

enough for you to spend your own money on and not come to Trenton for it, and that is something, again, East Brunswick is leading the way for. I commend you for that, sir.

Thank you, Mr. Chairman.

ASSEMBLYMAN DeCROCE: Thank you.

Any other questions of Mr. Cohen?

Mr. Oros?

ASSEMBLYMAN OROS: Yes. This ordinance that you referred to sounds very interesting. What you're saying, if I understand you correctly, is that if a developer comes into your community and is going to put up houses that fall into the range of the highways, he must provide the sound barrier?

MR. COHEN: He must either move those houses away, or we've had some developers put up a berm -- their own barrier. We make the measurements along with the developer -- he pays for it -- to make certain that they meet the criteria, whatever the criteria is now, 67 dB, that at that particular point it is less than the standard that we're looking at. It's very simple.

The Turnpike said that they didn't want-- We did it, and we did it in conjunction with this. They didn't want to be responsible for future developers. It just seems to make sense, doesn't it; that the State should not, 10 years from now, be responsible to put up noise barriers because somebody can't sleep at night, and it was built after this was done?

One other thing, we spent time and effort with Cook College to look at various sound barriers. The citizens' committee looked at about seven or eight different sound barriers. We had the school on landscape architecture at Cook College, Rutgers University do a study in conjunction with the Turnpike. I have only one copy that we can give to you to look at various sound barriers and their designs.

ASSEMBLYMAN DeCROCE: Thank you.

ASSEMBLYWOMAN MURPHY: Mr. Cohen, would you be kind enough, please, to send a copy of that ordinance to Assemblyman DeCroce for dissemination to all of us?

MR. COHEN: I'm sure Mrs. Eisner would.

ASSEMBLYWOMAN MURPHY: Thank you very much.

ASSEMBLYMAN DeCROCE: Thank you very much.

I'm going to call on this gentleman who was apparently opposed to the highway program.

If you don't mind, just come up.

UNIDENTIFIED MEMBER OF AUDIENCE: I have a question for Mr. Cohen.

ASSEMBLYMAN DeCROCE: You can speak to him directly, sir. I'm probably going to call on you next, I believe.

MR. BLANK: Thank you very much.

ASSEMBLYMAN DeCROCE: Your name, sir?

MR. BLANK: My name is Murray Blank. I'm a private citizen from Livingston, New Jersey. As a private citizen, I ride the roads of northern New Jersey, and I'm appalled sometimes by the conditions of our roads, our bridges, our overpasses, our grade crossings, if there are any.

I read in the newspapers about the supposed reduction in lighting on some of our highways, because we need the money; yet, we're spending untold millions on sound barriers. If any of you have ridden on Route 280 down those hills, you take your life in your hands, going up and down those roads. South Orange Avenue, if you've been in the northwestern part of the State; Warwick Turnpike; Breakneck Road, which is aptly named; Barett Road, these roads are impossible. I see no action there. People have just been killed recently on that road, on Breakneck Road. The bus overturned with gosh knows how many people there, going to Action Park.

We're talking about all of these things, yet the safety portion of the roads goes by the side. I'm not sure how well our bridges and roads are maintained, but I'm relatively

sure that, noticing the number of potholes and the amount of rust on a lot of our bridges, they certainly could use a lot more maintenance. I would say, first things first, priorities are turned over here.

ASSEMBLYMAN DeCROCE: Well, thank you Mr. Blank. Part of the reason why we wanted to hear from you is because there are people who are, certainly, concerned with their own quality of life and, obviously, want barriers. But you're bringing up another point, maintenance overall on all of our infrastructure, whether it be barriers, roadways, lighting conditions, whatever they may be.

MR. BLANK: Thank you. Thank you for listening.

ASSEMBLYMAN DeCROCE: Thank you.

Gertrude and Edward Stann.

G E R T R U D E R. S T A N N: Where do you want me to stand?

ASSEMBLYWOMAN MURPHY: They fixed that microphone, Ms. Stann, so I think you will be very well-accomodated there. Thank you.

ASSEMBLYMAN DeCROCE: Right over there, Ms. Stann. Just speak into it.

MS. STANN: Good afternoon all of you. This may very well be a first; we don't often agree on too many things. (laughter)

ASSEMBLYMAN DeCROCE: Because you've been married so many years. Speak right into it. (referring to microphone)

MS. STANN: At the outset, I feel a little overwhelmed by all this expertise sitting up here. I don't have any figures to give to you. I don't have anything to tell you all, except the fact that I think sound barriers as they stand, are an ugly abomination on the roads of New Jersey. (applause)

ASSEMBLYMAN DeCROCE: You won't hear her.

MS. STANN: We're supposed to be known as "The Garden State." Surely, we can grow something better than these things. Even now, when they're new; they're ugly. When they

are decorated as they will be with graffiti, they will be considerably more ugly.

I feel sorry for people who are bothered by the noise. The people who have had their homes there had a highway come in, and found noise that they didn't expect when they built their house, have my sympathy. Those who buy a home on a highway, knowing that it's there, don't elicit very much of my sympathy. They know the highway is there.

This gentleman, here, gave me a little bit of hope when he said that at least they were looking for barriers of plastic that would be less expensive, that would green, thank heavens, and that would be better for us. The gentleman who spoke from East Brunswick, he gave me a little bit more hope. He has some very good ideas. We have to listen to people like that. Surely, part of this problem is the fact, whether we all like to say this or not-- Underlying all of it is the fact that there is a great deal of money involved. Somebody is making a lot of money putting up these barriers. The only ones who I would vote for would be the ones who are tearing them down again. (applause)

ASSEMBLYMAN DeCROCE: Ms. Stann, let me just say, the purpose of this hearing is to get all this information from all of you, so we can report back to the Department with the feelings of all of the people; whether you live nearby or further away, your interest in them, whether you agree with them or disagree.

May I ask you one question? How far away do you live from the barriers? Do you live nearby? Do you live near the roadway? What part of town do you live in?

MS. STANN: No, we're not impacted by them. (negative comments from audience)

ASSEMBLYMAN DeCROCE: But you drive through them?

MS. STANN: Yes. When you come down from Summit and approach Chatham, which is a pretty little town, you are surrounded by these things. It looks like you're getting into

some kind of a Federal penitentiary that everybody has to be locked in somewhere.

ASSEMBLYMAN DeCROCE: Thank you.

Mr. Stann?

E D W A R D S T A N N: I echo my wife's sentiments. (laughter) But I'd like to add a couple other things--

ASSEMBLYMAN DeCROCE: Speak into that black one, Mr. Stann. (referring to microphone)

MR. STANN: --from a practical point of view. I've often thought as I were driving, particularly near the Short Hills Mall where you have the prison walls coming in on both sides: First, it's ugly, there is no doubt about it. But if it were early in the morning and there was an accident, and I had to get to the nearest house, how could I do it? There is no way of getting out of this cell, unless you walk down two or three blocks.

ASSEMBLYMAN DeCROCE: That's a good point.

MR. STANN: There is no provision made for it. I've seen solid areas, and I think of what that particular area looked like before they put up the barriers. It's sad. That was a beautiful area. It's like paying someone millions of dollars to come in and put graffiti on the walls of all the buildings in town.

They say that this has been federally mandated since the '70s. That's a hell of a long time ago. When you think, in terms of what they did in the '70s, how many years they took to reach that decision, we may be talking about-- They've done no basic thinking on this for the better part of 30 or 40 years. There has been such an advance in other fields, I can't imagine that there haven't been comparable advances where we can resolve the problem cost-efficiently. People would welcome it, and it's good for the taxpayer.

ASSEMBLYMAN DeCROCE: Thank you, Mr. Stann.

Any questions of Mr. Stann?



ASSEMBLYMAN WARSH: Just a comment, really, Mr. Chairman. When I started to investigate this whole area of sound barriers when I was elected in '91, I spoke to people in the two or three neighborhoods that are most impacted in my home town of Edison Township. I heard horror stories and saw horror stories.

One of the things we think of, or the main thing we think of is sound that these barriers are keeping out. But what it also keeps out are people who come off of the New Jersey Turnpike who don't have toll dollars, and they just start knocking on doors and asking for money.

An 18-wheeler traditionally, and particularly the double-decker 18-wheelers -- their axles crack. When they crack we just see the tires that are left over. Those axles come flying off of the New Jersey Turnpike, in one instance, tearing a single garage off of a house, completely demolishing two cars, and almost killing a sleeping infant on the front lawn, which miraculously didn't even wake up during this entire thing. But that's another story. So, it is more than just noise that these barriers protect people from; it's flying debris.

In your instance, I can understand your concern that maybe you'll need some help, but unfortunately, these neighborhoods get besieged by people who aren't looking for help; they're looking for pretty much anything but help. It is also the crime problem that a lot of people feel that highways bring through their neighborhoods.

So I'm happy that noise barriers do more than just stop noise. I think the challenge here is: How can we do it so it is not ugly? How can we do it so it is not expensive? One of the technologies that the Commissioner is currently exploring are see-through sound barriers, which are done all over Europe, that we do not do currently in the United States. So we would be able to keep out the noise and the other

problems, but you would be able to see through and still see the landscape and other things that drivers maybe want to look at. So I think there is still a lot of hope in the program if we do it right.

MR. STANN: I'd like to comment on your comment, if I may comment?

ASSEMBLYMAN DeCROCE: Comment.

MR. STANN: To begin with, Mr. Cohen's presentation and the party preceeding him, to me, was excellent. They offered positive approaches that could be pleasing both to the people affected by this and to the taxpayer.

Unfortunately, they didn't give examples as to alternate sound barriers, such as shrubbery, trees, berms, any number of things that could be done that would not only beautify, but are terribly cost-efficient, also, helping us in the pollution problem. All flora, why anyone hasn't kind of concentrated to try to expand this and explore it, I can't understand. The question of security, as to a free-going vehicle, to me, is minimal.

ASSEMBLYMAN DeCROCE: I can assure you that many of us have spoken to the Department with regard to the greening of the walls. It has been a constant-- We've been talking since Commissioner Downs was there, and now that he is gone, we've begun discussing the greening up of the walls with Commissioner Wilson. I believe he, too, will be interested in trying to do--

MR. STANN: Good. Thank you.

MS. STANN: Thank you very much.

ASSEMBLYMAN DeCROCE: Thank you very much.

Senator Martin, we're going to call on you. I know you have a tough schedule this evening.

Take it easy on my Senator, fellows.

Speak very closely to that black mike, Bob.

**S E N A T O R   R O B E R T   J .   M A R T I N :** Let me begin by congratulating you, Assemblyman DeCroce, for having a meeting like this in northwestern New Jersey. I'm really

impressed that legislators from throughout the State -- and I see it is throughout the State; Camden and South Jersey -- would come up here.

I think anybody who has lived in the area -- Alex, as you know, and Carol Murphy as well -- this has been an issue of interest in this area of the State. I can't tell you how many conversations I've had personally with people who will approach this. It really boils down to one of two positions. Some people who live close to the sound barriers strongly support them, they've been inconvenienced. Others, who, by and large, do not live close to the sound barriers, have strong reservations. It is not an easy issue to try and cut both ways.

I would applaud Assemblyman Warsh, if he is able to come up with some system that would make barriers cheap, inexpensive, and also good looking. If you can do that, I will change the position I'm about to give you.

My view is, I think that the sound barriers are a luxury, by and large, that we can no longer afford in the State of New Jersey. I simply don't think there is enough money that we have available, given the transportation issues that this State faces -- both mass transit and highway construction -- to devote too much in the way of resources. I understand that most of the money, of course, comes from the Federal government.

I would ask this Committee to consider as one of your choices, maybe to memorialize Congress, and to the extent to which money is saved not going ahead with sound barrier construction, we may be able to obtain funding for other projects. I think that really needs to be looked at.

But when we consider some of the problems we have here -- and I know this is true in Middlesex County, Atlantic County, Camden County, and throughout the State -- we desperately need some overpasses on some of our major thruways,

like Route 23 and Route 10. We desperately need some help with mass transit projects that the Chairman has been strongly involved in.

If I have to pick where the money goes, I think that as far as continuing with sound barriers, we have to be very careful. I have no problem with the concept as the program was originally devised, where you have new construction, where some unsuspecting person is now confronted with a highway, and has not been able to make a choice as to living arrangements. Sound barriers, given high levels of sound, may be appropriate in those cases, as well as in areas where you have new construction -- a substantial increase in lanes -- which may impact, again, in areas where we didn't have foreseeability.

But with respect to trying to have sound barriers on all of our interstate and major State highways, I just don't think we can afford it at this stage. I, like most people in this room I suspect, am a commuter. I travel from Morris County to Newark. Sometimes I take Route 80 and Route 280, and sometimes I take Route 24 and Route 78. I would daresay, we must have started the most ambitious sound barrier projects in the United States, because I am amazed at how fast sound barriers have appeared throughout this part of New Jersey, as well as others.

We could talk, and I have heard people testify, about the aesthetics. I'll leave that to you. Beauty is in the eye of the beholder, but I think there are some problems with that. I recognize that there are interests, like Jeff pointed out, with safety concerns. Those may be able to be dealt with on a different basis.

But I think this Committee should seriously consider thinking about where the limits should be on sound barriers, with recommendations to both the Department and the Federal government. We can't, and I don't think we should, put sound barriers on every interstate and State highway. I think most of the hard decisions have already been made.

There may be some pockets, we're aware, as your Chairman knows, of concerns still in our area. But I think just to continue a policy without really thinking about the \$4 million for every mile, where that is placed, and how it could be, perhaps, applied in other areas of transportation is a mistake both for the State of New Jersey and for the Federal government.

Thank you.

ASSEMBLYMAN DeCROCE: Thank you very much, Senator.

Does anybody have any questions of the Senator? (no response)

Thank you very much for coming.

SENATOR MARTIN: Thank you.

ASSEMBLYMAN DeCROCE: Mr. Joseph Dye, Parsippany.

**J O S E P H   D Y E:** Is this the one that works? (referring to microphone)

ASSEMBLYMAN DeCROCE: The black one.

**MR. DYE:** Good. I'm Joseph Dye. I live at 2 Argyle Court, Parsippany, New Jersey. One of our big problems, of course, is noise in our area. I was instrumental in my town of establishing and putting together a noise ordinance. One of the big problems we have is the excessive speed on Route 287, which contributes to the noise.

One of the things that I've been trying to do in our area, and you have to recognize that we have a town of close to 50,000 people -- the Department of Transportation bisected this town with Route 80 and Route 287. Now, they want to extend and widen Route 287. Not only that, but I hear rumors that they want to make the speed limit 65 mph, instead of 55 mph. I think that's ludicrous. If anything, I think our police department ought to get off its butt and do something.

ASSEMBLYMAN DeCROCE: You have to take that up with the township officials.

MR. DYE: Well, maybe so, but let's look at it this way: there isn't a truck that doesn't go under 65 mph when it passes my area. In fact, I've almost been killed several times by them.

Now, I've written and done a little bit of investigating in my area. Assemblyman DeCroce, you were involved in a couple of things. I have responses back from you, when I asked that we try to do a little bit of testing at the intersection of Parsippany Road and Route 287. Now, one thing people don't realize is that when you opened up Route 287 from the north down, you increased a terrific amount of truck traffic. Also, the fact that you have these big double trailers--

ASSEMBLYMAN DeCROCE: We realize that. When that roadway opened, we increased it by 14,000 units per day.

MR. DYE: Easily.

ASSEMBLYMAN DeCROCE: That was known. We knew that long before the opening.

MR. DYE: Now, one of the problems I have is, I have a little discrimination here, going on by the Department of Transportation. They're saying that you aren't going to do anything about any area that has industry. Now, I happen to live on a boarder of a commercial group, United Parcel is one of them, along with a few other people who live on Parsippany Road. I am within 750 feet -- where I live, as you can see on that map -- of Route 287.

Right now, Mr. Footie (phonetic spelling) in his development, is going to put some condominiums in there even closer to Route 287 than Route 80. One of the problems we have is, I can't get anyone to put a berm, trees, or any kind of a barrier up at Parsippany Road. Now really what happens is, those big trucks that come in for United Parcel and all the trucking companies, come around that big turn and go over the top of that bridge. That bridge now becomes a sounding board.

ASSEMBLYMAN DeCROCE: You know, if I may, Mr. Dye, I appreciate what you're saying, but it seems to me that your problem is more of a local problem, because you're concerned with local trucking in your immediate area as opposed to what is going on on the highway.

MR. DYE: No, I'm not. I'm sorry, Mr. Assemblyman, but the increase in the traffic on Route 287, coming from the north, no longer goes on Route 80 and around, it comes on Route 287. Now, you've increased the traffic coming over that Parsippany bridge and Route 287.

Now, one of the problems I have is trying to get someone to do something. I wrote several letters back to the Department of Transportation, which you were also on the distribution. One of the answers I got back says, "In 1992, we made a study, and we're not going to do it again." Now, one of the things that I contend is that now that you have put barriers up on the one side -- the west side of Route 287 -- they become sounding boards and reflect more noise over on the other side. Doesn't that make sense? Is that why they put great big things on big halls?

ASSEMBLYMAN DeCROCE: It may be possible, I'm not an engineer. But we would check with DOT.

MR. DYE: Well, I would say if you own a drum, or a banjo, or anything else, the sounding board reflects noise. That's what you're doing to us now. Now, I made a study and I had our health officer run a study here (indicating) at the so-called quietest time that was talked about.

This study was made on the 21st of October, 1993, by our health officer, Max Shubet. We made this study at a point approximately 750 feet, parallel to Route 287. At the particular times -- for instance, 11:30 p.m., 12:30 a.m., 1:00 a.m., 2:00 a.m., these are supposed to be quiet times -- we had dBs, 67 dB, that far away on Route 287. I will give this to you.

ASSEMBLYMAN DeCROCE: Okay.

MR. DYE: This was made by our officer, and I was with him when it was done.

ASSEMBLYMAN DeCROCE: Okay.

MR. DYE: We really made it at the site of United Parcel, mainly because it represented that area that you're talking about, 750 feet. Okay? I'll give that to you now. (distributes statement)

ASSEMBLYMAN DeCROCE: Thank you.

MR. DYE: The other problem I can see is this: If you will look at the map I gave you, there is a section from Route 10 to Route 80, along Pomerdy Road. It just so happens that Route 287 is actually parallel to the road at that point. Right? Now, I've asked them to put a berm up there.

What happened is, down the area-- We live on the other side of this so-called light industrial area, which doesn't have drop hammers, it has shops. Actually, United Parcel has trucks. Now, what happened is, when they built those various small outfits, they took all the trees down and put parking lots in. We've got a lot of parking lots. What they did was, they contributed to the noise.

Now, what happens is, I've had the noise officers at my house. I have neighbors who can't sleep, can't open their windows at night, because of Route 287. If you take a look at that area between Route 10 and Route 80, along Pomerdy Road, right there. If you're driving along, listen to the sound. As you get under Route 10, the sound goes up about 3 dBs to 4 db because of the structure of the road.

Now, the gentleman that was here talking about the asphalt, Mr. Williams, had a darn good idea. Now, I have property in Maryland. I do a lot of traveling in Maryland, and they have some beautiful roads done with this asphalt. I have no connection with Mr. Williams. I'm just concerned about the noise. A lot of people don't realize what noise can do to you.



I feel for those people who don't like the sound barriers. I don't like them either. But look at it this way, there are over six million people in this country who have been affected by noise. (witness dislodges amplification microphone)

What happened?

ASSEMBLYWOMAN MURPHY: That is the microphone that works. (indicating)

MR. DYE: Oh, this is the microphone.

There have been six million people affected by noise alone. Their hearing is lost. There are probably a lot more. Now, as we continue going on Route 287, if they increase that speed from 55 miles per hour to 65 miles per hour, I don't know what-- I'm not an acoustical engineer, but I would assume that those people won't be doing 65 mph, they'll be doing 85 mph. I don't know what that will contribute to the noise level, but it sure will do a lot to it.

Now I think if we are smart, the Department of Transportation will sit down and talk to the people who make the cars. If you look at the tires on the cars, they look like all snow treads. They contribute to the noise. If you go to buy a car, what do you have, no noise on the inside. Let's do it outside. Let's get all the people on the outside messed up. I think if they did something with the speed, did something with the road, and sat down with the automotive industry and said, "Hey guys, let's go back to the time when you had quiet tires."

Now, I don't know how old most of you are, but I know when I was a youth, one of the big things in selling a car in 1938, was that the tires had to be real quiet. Now, all we've got is quiet inside so you can hear your hi-fi. It doesn't make sense, does it? So what can the Department of Transportation do to regulate some of that stuff from the automotive industry?

ASSEMBLYMAN DeCROCE: I don't know what they can do, but we can certainly make suggestions to them based on some of your testimony. It's not bad testimony.

MR. DYE: Even those big trucks, those big, double trailers coming by doing 65 mph-- Believe it or not, in the State of Florida, they all have governors; not all of them, but a good percentage of them are required to have governors on those huge trucks. Why can't we do that in the State of New Jersey?

ASSEMBLYMAN DeCROCE: Because we're a corridor state, unfortunately, and most of the traffic goes right through our State from Maine right through to Florida, quite frankly, and that's a problem.

MR. DYE: So what? When you come into the State-- When you go to Florida, if you're doing 75 mph or 65 mph and you go through a small town, it reads 45 miles per hour for this period, then you go back up to the speed. Why can't we do that here in Parsippany, or do it right here?

ASSEMBLYMAN DeCROCE: To be honest with you, Mr. Dye, most of that heavy truck traffic does travel on major Federal roads. It doesn't really go through most of our little, smaller towns like Florham Park or the Township of Parsippany.

MR. DYE: We're not a small town. We're 50,000 people.

ASSEMBLYMAN DeCROCE: Well, we may be 50,000 people, but we have the same roads in Florham Park, or Morristown, or Riverdale, or any other town we have. What I'm saying is, that those double trailers you're talking about are on our major highways, not on the local roads. The only time they get off of the major highway to drive in a regular township is when they are going to their depot, or, let's say where you live, to United Parcel. They drive anywhere from 750 to 1000 feet off the major roadway.

MR. DYE: Yes, I realize that they do that. But one of the things that you can't understand is that increased traffic and that buffer that goes in there, increases that

noise. I'm asking you that they put -- where you see that little green line in there on Pomerdy Road, put in a small barrier.

ASSEMBLYMAN DeCROCE: I see that.

MR. DYE: If you won't, give me some dirt. I'll build my own berm right there. Okay? I'm serious.

ASSEMBLYMAN DeCROCE: Let me say this, I will take it up with--

MR. DYE: I'm serious. Now, I've sat there many nights and listened to that noise with the health officer in our town. All you've got to do is put a five-foot or a three-foot berm, or something, to replace the trees that your developers take down.

ASSEMBLYMAN DeCROCE: Okay. I will discuss that, I promise you. I will send you a copy. I will make sure that this gets to DOT. We will ask them about a potential berm for your area.

MR. DYE: I would like that. Because I would kind of like to see my neighbors sleep, too, because they're keeping me awake calling me up, asking me what I'm going to do about it.

ASSEMBLYMAN DeCROCE: Okay. Does anybody have any questions of Mr. Dye? (no response)

Thank you, Mr. Dye. May I have your map, by the way? May I keep this map?

MR. DYE: You can have the map, I have others.

ASSEMBLYMAN DeCROCE: Thank you.

Mayor Dedio?

MR. DYE: Would you like a copy of your letter back to me?

ASSEMBLYMAN DeCROCE: No, I don't need that. I have that letter. (laughter)

MR. DYE: I sure would like to see them do something, aside from talk.

ASSEMBLYMAN DeCROCE: I'd like to recognize the Mayor of Florham Park, who is with us today, Mayor Dale Anderson.

Thank you, Mayor, for allowing us to use your facilities. Thank you so much.

ASSEMBLYWOMAN MURPHY: The Mayor of Madison is here, too. Alex, the Mayor of Madison--

ASSEMBLYMAN DeCROCE: I also understand-- Oh, there he is. The Mayor of Madison is here as well, Mayor Capen.

Thanks for stopping in.

Mayor Dedio.

M I C H A E L D E D I O: Thank you very much. Assemblyman DeCroke, thank you very much for holding these hearings. I think they are long overdue.

I firmly believe that the noise barriers are a necessity. Whether we like them or don't like them, they are here to stay, just because of the fact that they do cut down on the noise. There probably isn't a town in North Jersey that feels it more than the Borough of Riverdale. We're approximately 1.8 square miles. If you took Route 23 and I-287, we sit right in the valley. Both highways are elevated above us.

The DOT recognized that fact back in the early '80s when it designed I-287. At that time, they designed sound barriers to be placed along our highway. I'm here to ask that they complete that task.

I have the two maps that were given to me. I have been Mayor there for 17 years, and I've held these maps. They are noise studies that were conducted by the DOT that show 70 dB ratings with the sound barriers there -- if they were in place. They are not in place. When we requested that, they said they had run out of Federal funds to do that.

As was stated before, many municipalities are having sound barriers placed now along Route 280 and also along Route 78. What I would ask is that the DOT give serious consideration in placing these sound barriers.

Assemblyman, I would like to give them to you.

ASSEMBLYMAN DeCROCE: Yes, thank you.

MAYOR DEDIO: If you do look at them, ladies and gentlemen -- I only have two -- 70 percent of the municipality is right there, and it's surrounded by these highways. I mean, we are right there. It's not that we have a lot of greenery between us and the highway. Our backyard is the highway.

ASSEMBLYMAN DeCROCE: Mayor, a question: Those barriers were originally planned for that area?

MAYOR DEDIO: Yes, those are the original maps.

ASSEMBLYMAN DeCROCE: The DOT indicated that they could not put them in because of a lack of funding?

MAYOR DEDIO: Lack of funding.

ASSEMBLYMAN DeCROCE: We'll check that out.

MAYOR DEDIO: Now, you have to understand one thing when you look at these sound barriers. On the one side of I-287, you can't place them because it's a direct mountain that goes straight up -- where the sound rolls against the mountain, and it does roll into the municipality.

The highway is approximately 40 feet above the municipality. Now, our residents not only see the highway, they live the highway. I have even witnessed where-- They were talking about the truck traffic, that is a ribbed highway.

Ken Afferton, who I believe is the Deputy Commissioner?

ASSEMBLYMAN DeCROCE: Yes.

MAYOR DEDIO: He told us at a meeting, Assemblyman -- that you had put together for us -- that the project was done wrong. The ribbing isn't right; they would not design that today. When we heard about the trucks-- People can actually put water on their table and watch the water vibrate. Now, this isn't 50 feet away; this is 700 feet away. Under the right conditions, you can actually see that and feel that.

These sound barriers, if properly placed -- which will be a feat, because it is a 1000-foot bridge that runs over a river that runs along the mountain bank -- will give relief. One hundred percent? Of course not. I don't think so. I don't think that is going to happen. I think anybody who believes so is foolish.

Are they attractive? No. I've never seen an attractive sound barrier. But we did not ask for the highway. If you were to design a highway today, you would have this room filled with people telling you why it should not be placed there, but we do have it. We do have to live with it.

I do not necessarily believe that a municipality should put funds in escrow to build sound barriers. I think if the DOT wants to build a highway that serves the whole State and other states, especially with Federal funds, they should build it adequately to give the protection to the people. That is all I ask.

One other thing I would like to bring up pertaining to our highways, and I think I-287 was a classic example when it first opened up--

ASSEMBLYMAN DeCROCE: Is this pertaining to noise barriers?

MAYOR DEDIO: No. I won't bring it up then.

ASSEMBLYMAN DeCROCE: Okay, thank you. I don't have that much time; that is my reasoning.

MAYOR DEDIO: Thank you very much, Assemblyman. No problem.

ASSEMBLYMAN DeCROCE: Does anybody have a question for the Mayor? (no response)

We're going to continue the hearing until about 20 minutes after. Then, I have to break. I have to feed these fellows. They came from all the way down in South Jersey. We will resume by 7:00. But we will go until about 20 minutes after.

I'd like to call on Anne Taylor from Mountain Lakes.

**A N N E S. T A Y L O R:** (from audience) I would--

**ASSEMBLYMAN DeCROCE:** Up here, please.

**MS. TAYLOR:** Can I just speak from here? I'll talk real loud. I'm just as dissatisfied--

**ASSEMBLYMAN DeCROCE:** No. It won't record here, and we need it transcribed.

Right here, Ms. Taylor. I'm sorry, but we want to have you in the transcription.

**MS. TAYLOR:** I'm a nobody, just a taxpayer who is fed up with paying tax, tax, tax, tax, tax for everybody's problems. You know, I live in Mountain Lakes and have been there for 25 years. We're taxed to death, but we figure well, we're there and we're not near the noise. However, we are getting noise and all this.

I just say, I'm paying through the nose with the personal tax, the income tax, the property tax for everybody's problem. Now, we just retired and what about my quality of life? How can I go do anything? It's all going out in taxes. All these sound barriers, they're going to come out of our pockets. It's not money from the sky.

**ASSEMBLYMAN DeCROCE:** That's exactly right.

**MS. TAYLOR:** After they build the sound barriers, what about the airplanes, the noise? Are we going to ask for domes?

Thanks.

**ASSEMBLYMAN DeCROCE:** Thank you very much.

Kevin Lee from Madison.

**UNIDENTIFIED MEMBER OF AUDIENCE:** Where is the best place to write?

**ASSEMBLYMAN DeCROCE:** There is my executive assistant, back there in the green dress. You can talk to her.

**K E V I N L E E:** Hello, my name is Kevin Lee. I live in Madison, the Knollwood section, 160 Rosedale Avenue.

**UNIDENTIFIED MEMBER OF AUDIENCE:** Louder, please.

ASSEMBLYWOMAN MURPHY: You have to make sure you're speaking in the black microphone, Mr. Lee.

MR. LEE: I live at 160 Rosedale Avenue, in the Knollwood section of Madison, New Jersey.

Prior to Route 287 opening up, I don't know if I would have sat here and said, "I strongly believe we need some noise barriers." Since Route 287 has been complete, there is now constant noise. It can be at 1:00 in the morning, it can be at 2:00 in the morning. The Greenwood Avenue bridge, there is a hill. Trucks barrel up and down that at relentless speed at any time of the day or night. It can disturb your sleep. If you are woken up, it is hard to get back to sleep.

I would just urge that you consider studying that little section of Knollwood, which was a nice, quiet community. Now, we're inundated with noise. I know, personally, that it affects me; it affects my neighbors. One of my neighbors is considering moving, depending on whether or not we're going to get some noise protection.

Sound barriers are expensive. Well, maybe we can develop an alternative. I don't know what it would be, but I would like to see something done. I don't feel like anybody is really concerned about what is going on in this particular section. The road is certainly very noisy.

I'm urging you to consider--

ASSEMBLYMAN DeCROCE: We're concerned, Mr. Lee. We wouldn't hold these hearings, frankly. We want to hear both sides. There are people who are for, and there are people who are against. We want to take everything into consideration and then report back to the Department.

Let me ask you about Greenwood, now -- Greenwood Avenue. You say on that Greenwood Avenue bridge--

MR. LEE: There is a bridge--

ASSEMBLYMAN DeCROCE: I know that bridge.



MR. LEE: --and there is a hill there that comes down. Now, since Route 287 has been opened, the amount of traffic has really increased all times of day, particularly truck traffic.

ASSEMBLYMAN DeCROCE: Let me ask you something: Is the roadway there-- If I recall, isn't the roadway below the housing?

MR. LEE: It is.

ASSEMBLYMAN DeCROCE: But you still get a lot of noise in that area, regardless of the fact that you have an automatic berm there?

MR. LEE: Particularly since Route 287 was completed. Prior to Route 287, I wouldn't have felt nearly as strongly as I do now. Now, it's constant noise. The neighbors are talking about it. I represent a number of neighbors and residents in the Knollwood section, who all feel pretty much the same way as I do; that we definitely have a serious problem with noise in our neighborhood. It was a quiet neighborhood.

I realize that sound barriers don't make all the noise go away, but, certainly, it would make it a lot more livable for us.

ASSEMBLYMAN DeCROCE: Thank you.

MR. LEE: Thank you.

ASSEMBLYMAN DeCROCE: Thank you, we'll take your concerns into consideration.

Does anybody have a question of Mr. Lee? (no response)

Thank you, Mr. Lee. Thank you for coming.

Elenor Henyon (phonetic spelling), Morris Plains? (no response) Shirley Thomson, Wharton?

S H I R L E Y T H O M S O N: I'm just a citizen. I live within a half of mile of--

ASSEMBLYMAN DeCROCE: Could you speak into that black microphone?

MS. THOMSON: --the highway on Route 80, in Wharton. I wonder if we can justify the cost of the sound berms, plus the cost that rises from the original base, the erasing of the graffiti, the extra salt that we needed to use on Route 80 in particular -- since the sun doesn't hit the highway because the sound barriers were there.

ASSEMBLYMAN DeCROCE: Good point.

MS. THOMSON: We found that on Route 23 and Route 287 as well. Would there be a ceiling cost to the project? Adding all these things to the necessity that we all feel for sound, but now we have a sight pollution, instead of sound pollution. Perhaps we should address this sound pollution with other things besides putting something on the highways.

ASSEMBLYMAN DeCROCE: Yes, that was kind of the suggestion that Assemblyman Warsh came up with. Looking toward other ways in which to protect the residents, whether it be through the building codes or possibly through our automotive policies. That may be one way.

MS. THOMSON: Exactly. I was wondering, too, about the Federal mandating of this. I've been in Arizona, in Phoenix, when they opened a new highway. I was in San Diego when they opened a new highway. No other state seems to have as many, of course, or as unsightly a barrier as we do. Even the new highway up on Route 78 into Pennsylvania, looks a lot different than highways do. So I am wondering why ours look this way?

ASSEMBLYMAN DeCROCE: Well, I think part of the reason for it, frankly, is -- and I'm not making any excuses for our Department of Transportation or anybody else -- I think we're one of the more densely populated states than probably most people travel through, whether traffic goes north and south, or east and west. I think that is partly the reason. I don't think that is the entire reason, but I think it is part of it.

MS. THOMSON: Yes, which is one other observation I've made concerning sections of the highways having the barriers without regard to other things. I know in Morris County there is a cemetery, a Burger King, a ball field, and the barriers are all in front of them. It was just a ribbon of barrier, as opposed to residential need.

ASSEMBLYMAN DeCROCE: See, part of the problem is -- if you heard the DOT -- when a major highway is put in, they were required by the Federal Highway Administration to put these in. The only reason certain towns knocked them out is they passed resolutions, either for or against.

MS. THOMSON: I know on Route 80, close to my house, it is a very old highway, but they are very new barriers.

ASSEMBLYMAN DeCROCE: Yes, well, that's right. But they did that with the extension. When that extension was put in, that was part of the requirement; to put those barriers in at the same time. I'm not justifying it. I'm just saying that is what was done.

Thank you.

Mr. Bates, Charles Bates, Boonton Township. (no response) Jim Barnes, Roselle.

Hello, Mr. Barnes.

**J A M E S   B A R N E S:** Hi. While I don't have to introduce myself anymore, but I am Jim Barnes from Roselle. I have been interested in the installation of these sound barriers, even though I don't live close to them. But it is an aesthetic thing to me when I go down the highways and you see the walls, walls, walls.

I didn't come here with a prepared speech. I'm only going to take a couple of minutes, but I think most of us here have heard of pork barrel legislation. This reeks of pork barrel legislation. I do feel, as someone mentioned before, that somebody is making money. Somebody probably made money off of this before, when it was first instituted in the plans for building these roads.

I'm from a labor organization. I don't represent any labor organizations, but I've been a shop steward with the Teamsters. If there is anybody who wants jobs, I say, "Hooray for jobs," but not by doing something ridiculous, building installations like these noise barriers, which are now becoming graffiti walls.

I would like to say that one word comes to my mind, and that is, foolishness. Only a few people are really helped by these sound barriers. When you look at it, really, it's only people who live up to maybe 400 or 500 feet from it -- I've never made a study of it. Right? The rest of the people, the rest of the taxpayers are paying for the benefits to only a few.

The State and the Federal governments, now, are beginning to wise up about people who build their houses right on the waterline at the shores. Because time after time, storms come along and destroy these homes, and now the states and the Federal government don't want to assume these costs anymore. I don't think the majority of the people in the population of the State should assume the costs of trying to make things more comfortable for these people who, as in one article I clipped out--

There was one man, I forget what town he was from, he was against the noise barriers and the cost. He said, when he bought the property there, he bought the property knowing the highway was there, knowing that he got a good deal on his lot -- cheaper. He said other people who got themselves into that kind of situation should feel the same way that he does about it. Keep quiet, they got paid off when they bought the property cheaper and everything.

I have so many things to say and such a short time to say it in. But anyway, look at the airplane situation somebody mentioned before. Here you have some people on this side of town complaining about the airplanes going over their homes.

Then you have somebody on this side of town complaining about the airplanes going over their homes. It was all ridiculous and foolish to me, too.

Here, again, I think people should investigate closely enough whenever they prepare to move into another area; look at which way development is going, whether there is a proposed airport going in, or a proposed enlargement even, of an airport, or enlargement of a highway.

I think that the money spent for the sound barriers would be better spent for maintenance of the highways, maybe widening of the highways. Also, I think in this last winter's storms, combination of storms, a lot of municipalities had problems with moneys for snow removal, even including buying salt. I think the moneys that would be saved from benefitting a few people with these noise barriers would be better spent for the majority of the population who have to use these roads to access themselves between home and work.

Recently, down around the Cranford-- Oh, by the way, we established I'm from Roselle. Around the Cranford area it was, I believe, there were some people who were complaining about the noise of kids at the playgrounds. Some people will complain about anything and everything. These are kids. They're not being destructive, right? But they make a little noise, right? But some people, some homeowners in the area were complaining about people making noise. I could see if profanity is going through the airwaves and stuff like that, but if it's just happy kids playing basketball or whatever they're playing, at the playground, can you imagine people complain about that?

ASSEMBLYMAN DeCROCE: Stick to our barriers, though, Mr. Barnes.

MR. BARNES: Yes, okay.

ASSEMBLYMAN GAFFNEY: On the bill.

ASSEMBLYMAN DeCROCE: Yes, on the bill. (laughter)

MR. BARNES: Well, I would say that is about--

ASSEMBLYMAN DeCROCE: Does anybody have any questions of Mr. Barnes?

ASSEMBLYMAN GAFFNEY: No, but just a comment. He mentioned about pork barrel legislation. Isn't it ironic that the only pork New Jersey gets is sound barriers, right? We could use a couple of aerospace factories or something.

ASSEMBLYMAN DeCROCE: Okay, before we break, I'm going to call one more.

Thank you, Mr. Barnes. Thanks for coming.

MR. BARNES: Thank you.

ASSEMBLYMAN DeCROCE: I'm going to call Mr. Robert Leopold, Vice-Chairman of the Livingston Planning Board.

We're going to break, ladies and gentlemen. We'll return by 7:00 to go on to hear whoever comes at that time.

Thank you, Mr. Leopold, for waiting. I appreciate it.

R O B E R T L E O P O L D: Thank you. It's fascinating. I'm glad I'm not on that side of the table.

ASSEMBLYMAN DeCROCE: That is why we're here.

MR. LEOPOLD: Right. Although I am the Vice-Chair of our Planning Board, I am here as a citizen and a taxpayer. I'm a former mayor and councilman as well, but I'm still here as a taxpayer and citizen.

I live alongside Route 280, and I think the sound barrier program in the State of New Jersey is ridiculous. The reason I say that is because of the issue of balance of cost and benefit. There are lots of things that are nice, and lots of things that are good to have. I think I might like to have a Rolls Royce. I actually have a Geo Prizm. I wonder why that is? (laughter)

I look at the budget of the State of New Jersey; read the newspapers about \$2 billion shortfalls; I look at the fact that we can't get Eisenhower Parkway completed, and then I look

at West Orange, which is now isolated from Route 280. I wonder what they're hiding in there? This is going on all over the place. I don't want to repeat what other people have said.

The rate of proliferation has been very disturbing. The number of people who come to me and say, "What's going on? Whose getting all this money?" Pork, by the way, is bad stuff. I eat it, but I mean in terms of Congress and state Legislatures.

The other thing is -- it may have been Assemblyman Warsh, it doesn't matter -- there has been an interesting distinction made. The Federal government pays for this kind, and the State pays for-- I pay for both of those and so do you, and so does everybody in this room.

ASSEMBLYMAN DeCROCE: That's right.

MR. LEOPOLD: So that distinction is important for people who are worried about the New Jersey budget or the next election; it is not important to taxpayers. If the money is not being spent wisely, it's not being spent wisely. I realize it's controversial and I realize it's foolish to say, "I am for sound barriers," as it is to say, "I am against sound barriers." The issue is: What are the criteria that should be used to make those decisions.

From what I heard today, and what I've heard elsewhere, there are a lot of formulas, there are mandates. There are 64 dB numbers. There isn't a lot of common sense. The sound barrier along the cemetery, the Federal government mandates, so that's okay? You go out to near Summit Avenue on Route 24, there is a sound barrier on top of a depressed highway. You can cite an infinite number of cases.

The other issue is, a lot of people who want them perhaps don't realize what their effectiveness is. Yes, they help. But will they solve the problem they think they have? They don't work equally well on tire noise, on trucks that are

bouncing. There are different effects here. If people think that, suddenly, it's going to be okay where it wasn't okay; there is a lot of illusion in there.

You talked about things the townships can do. We had a problem in Livingston with noise associated with Route 280, a particular problem with trucks -- that came up Livingston Avenue, which is a north/south road that intersects with Route 280 -- when they came up the ramp at 3:00 in the morning, with the gear changes and so forth. Well, with the cooperation of the county, we have bared trucks from that road. Trucks now enter at the part of Eisenhower Parkway that exists, which is in a commercial/industrial zone. So, that solved that problem. There were no barriers put up to do that. Some good sense was used.

Let me close with two points. I did a little study along my section of Route 280, east of Livingston Avenue as it turns out. About one section of those homes was built before the highway was there. That is where my house is. There is another section to the east of us, where rather expensive houses were put in right next to the highway, after the highway was there. You want to guess which of those two groups of people are asking for the sound barriers? It's the people who built the houses after the highway was there. There is something wrong about that.

So, I wrote a letter a year ago. It's short, it sums up some of these points. It was in the West Essex Tribune about a year ago. Let me just read it without comment. It is addressed to the editor.

"A controversy is blossoming over sound barriers along Interstate 280. The issue is not whether the barriers are nice, or whether we would like to have them, but like all the other goodies we want: how much they cost, who benefits from them, and who pays for them? So I did a little arithmetic.



"From the town's zoning map, I estimated that about 20 lots in the Zone R1; 66 lots in R2; 41 lots in R4" -- I'm an engineer, too, so you have to deal with numbers with me -- would be significantly affected by sound barriers. That would require about 0.4 of a mile of barriers in the R1 Zone; 0.7 in R2; about a half mile in R4. Figuring the cost of barriers at \$2 million a mile leads to these startling costs per house:

\* "In Zone R1 -- that's a one-acre zoning -- \$40,000 per house to improve the quality of life for the houses affected there;

\* "In Zone R2, which is slightly smaller, \$21,000 per house;

\* "In Zone R4, \$24,000 per house. It's related to the number of houses and where they are.

"If anyone would like to assume that more homes benefit, even two or three times as many, play with the numbers as you like. You are still lead to this question: If you were to be assessed for the cost of barriers for your house, would you be willing to pay for it? I think we all know the answer.

"At a time when so many are challenging high taxes in this State, how can we in good conscience spend this money this way? The barriers are not free. At a time" -- I'm repeating -- "when we are arguing for the extension of Eisenhower Parkway, how can we use State highway funds so freely for sound barriers?

"My family are long-time residents of Palmer Drive, with Interstate 280 as a neighbor. In fact, my first community activity, more than 30 years ago, was to fight the State's decision to move the road closer to the Livingston boarder than the maps originally showed. We have lived with it for many years. Do I wish it would go away? Of course. Would I pay my \$24,000? No way.

"The fact is that we rarely hear the highway inside the house at all. Outdoors, most of the time, the sound is a steady background, occasionally annoying. Sometimes in the

summertime" -- you can come out to my house tonight when you're done with this hearing -- "the screech of thousands of crickets and tree frogs drowns out everything, the highway noise and conversation. Should I suggest that the State come in and assassinate all the little creatures going about their sexual escapades? I think not. Do I think we should ask the State to spend our money on these barriers? No."

Thank you.

ASSEMBLYMAN DeCROCE: Thank you, Mr. Leopold.

Does anybody have any questions for Mr. Leopold? (no response)

I'm going to call one more, because there is a man who has to go back to West New York tonight. He is Bernd Lenzen, from Clarke and Rapuano, please.

**B E R N D   L E N Z E N:** I am Bernd Lenzen of Clarke and Rapuano. We are consulting engineers and landscape architects in New York City. I had been asked if I could attend.

We are currently working as consultants for the Department of Transportation. I'm personally involved in the study along I-80. I used to be involved in the study for part of the noise barriers on I-78. I am a past member of the Highway Noise Subcommittee from the Transportation Research Board.

I have a European background, and I thought it would be interesting to bring a different perspective to the whole issue. I have not prepared any statement.

ASSEMBLYMAN DeCROCE: That's okay.

MR. LENZEN: I thought I would ad-lib. I heard so many things brought up here that I could elaborate on, that I could refute, and generally talk about, probably for an hour.

First of all, all of us in the room are contributing to noise, that is, what we call noise; that is, unwanted sound. The gentleman that just talked before me talked about whether we should assassinate all the crickets in this

neighborhood. Noise is unwarranted sound, and at that, it is highly subjective. Someone's sound can be pleasurable at 110 decibels, if you go to a rock hall, and some others can be disturbed by something as low as 55 decibels.

It all depends on where you want to live, what you have in mind. Whether you want to live in an urban environment, where you are actually subjected to 72 dBs, 75 dBs, or 80 decibels, that is quite normal there. If I want to live outside in the countryside, to me 60 decibels is unacceptable.

So if I live now in an area where a highway has been put through or near my property, I would like to be compensated for that fact. Or maybe, this can be handled in eminent domain, compensation, and people move out. It is basically a matter of quality of life.

So, what is quality of life? Humans are not made to live in constant noise. Humans are also not made to live in a walled-in environment, that goes for both sides on the fence. You have the resident who wants to be protected from the noise on the highway. He may not want to live behind a noise wall, because he may have the feeling of being totally encased. People have alluded to this today -- the prisonlike environment.

So across the industrial countries, you have a controversy. You have people who want noise walls by all means; you have other people who want to live with the noise. Then, you also have what contributes to the quality of life. When we drive down a highway, we are subconsciously at first, and then consciously, reacting to the noise barriers. If you have miles and miles of monotonous, high walls you are getting really affected by it.

If you stand on top of the Matterhorn and you look in the scape, you lift up, you breathe in, and you feel really relaxed. Well, if you stand on of the Matterhorn with a wall around you, you can't do this. Therefore, your relaxation is not there. That also can happen along the highway.

Now, we, as consultants, do not make a stand one way or the other. We do not favor noise walls, and we do not say you have to build them -- either you build them or you don't build them.

How did we get there? In the early '30s, or actually back to the '20s, when the first parkways were built, large swathes of lands were purchased. An example is the Palisades State Parkway; there is no noise problem. In the '50s, with the beginning of the urban sprawl, the problems started. Lands were not purchased. Narrow swathes were cut through the countryside, and now we are gradually realizing the predicament. Something has to be done about it. We have experienced that.

For instance, during our noise study on I-78, developers have put condominiums right off of the right-of-way. Well, as a sensitive person, I have to say something like that should not happen. That is a matter of zoning.

ASSEMBLYMAN DeCROCE: It's the local jurisdiction, sir.

MR. LENZEN: Local jurisdiction.

ASSEMBLYMAN DeCROCE: Yes, unfortunately, that happens.

MR. LENZEN: I think that local or State legislative measures can redirect this and could rezone, or put zoning restrictions into effect.

Let's say we would like to remedy the problem on both sides of the aisle. It is unacceptable that a resident has to live under constant high noise. If you have experienced living along I-80, and you're subjected to between 75 and 82 decibels, and you don't hear the German shepherd bark, then you have a serious problem. If you have enough residents affected by it, I would say that a noise wall is justified. Whether the Senator likes it or not, I think we have an obligation to society to protect all our citizens.

The same way, I could talk for the people who do not like the noise walls. Because nobody likes to drive down the road and be fenced in or walled in. Allusion was made to The Garden State, so we should make sure that we remain The Garden State. There are various ways to do this.

ASSEMBLYMAN DeCROCE: Don't you think, by greening them up, they might elude some of the problem that we're facing right now, with those opposed?

MR. LENZEN: By doing what?

ASSEMBLYMAN DeCROCE: By either putting ivy or trees or green products alongside might help? Can you go a little faster, because I have to break shortly?

MR. LENZEN: Yes, okay.

The creation of evergreen walls, as they are called, first sprung up in Switzerland and then came, via license and agreement, to the United States. I have to tell you that, at best, you're going to get a result that will not please the people who would like to see them. When you have evergreen walls in an environment where it frequently rains, where there is constant maintenance, these become very effective. Switzerland, for instance, goes to the extent where they irrigate the evergreen walls. That is highly maintenance intensive. Well, we do not have maintenance funds. Therefore, we do not--

ASSEMBLYMAN DeCROCE: No, I wouldn't say that. That's why we have the trust fund, so we have maintenance funds.

MR. LENZEN: We have restricted maintenance funds, I would guess.

It is possible, if you have a lot of right-of-way, to create a large base for these evergreen walls. If the top portion has a large volume of earth and maybe, also, a mixture of moisture retaining granules in it to better it, but we are dealing most of the time with restricted right-of-way. At that point, the narrow, straight-up wall is what is warranted.

If we had room enough, we would put in berms. If we don't have it, we can't.

ASSEMBLYMAN DeCROCE: Well, in most cases, unfortunately, we don't have it. Unfortunately, we can't do berms and sometimes we can't put a lengthy berm, or let's say, greenery of trees or what have you.

I'm going to have to cut you off. I'm sorry, but we're going to have to break, or we're never going to get here by 6:45.

MR. LENZEN: Maybe at 7:00 I will be on?

ASSEMBLYMAN DeCROCE: Yes, if you can afford to be here later, maybe we can call you a second time.

MR. LENZEN: Thank you.

ASSEMBLYMAN DeCROCE: Thank you.

UNIDENTIFIED MEMBER OF AUDIENCE: Will those of us who are here now be called?

ASSEMBLYMAN DeCROCE: You'll get the first shot. I'm sorry, but--

UNIDENTIFIED MEMBER OF AUDIENCE: No, I understand. I just wanted to make sure we're not shifted because other people called about this evening.

ASSEMBLYMAN DeCROCE: There are about 15 people yet to be called. Okay? They'll be called first.

**(HEARING RECESSED)**

**AFTER RECESS:**

ASSEMBLYMAN DeCROCE: Good evening, ladies and gentlemen. We are going to start the second half of the hearing.

This evening, we are going to be taking testimony from you. We are going to be getting your remarks and, hopefully, will compile them all, and will eventually send your thoughts down to DOT, asking them to give strong consideration to them, regardless of which way many of you may feel regarding noise barriers.

We are fortunate tonight to have several members of the Department of Transportation with us, as well as members of the Assembly, from as far away as Camden and Atlantic City, through Edison and Metuchen -- I'm sorry, Woodbridge. These Assemblymen have been here all day. I would just like to introduce Sean Dalton, from the Camden area; Jeff Warsh, from the Edison area; Ernie Oros, from the Woodbridge area; and John Gaffney, from Atlantic City. Of course, my name is Alex DeCroke, and I am from the district right here.

I would like to call upon Jane Kimbell first, if she would please come up. Would you please use that microphone, if you don't mind?

J A N E   S.   K I M B E L L: Which one?

ASSEMBLYMAN DeCROCE: The one standing over there, please.

MS. KIMBELL: Oh, sure.

ASSEMBLYMAN DeCROCE: They set it up while we were gone.

MS. KIMBELL: Can you hear me?

ASSEMBLYMAN DeCROCE: Yes.

MS. KIMBELL: My name is Jane Kimbell. I am here representing my family, which owns our family homestead -- the Baldwin Homestead -- at 179 Troy Road in Parsippany.

Route 80 runs parallel to and also intersects Troy Road. I am talking about the stretch of I-80 that runs from Route 287 in the west to Route 23 in the east. I am not sure what the status is of the noise abatement studies there at this point. I know it is a Type II project. I am here to urge construction of barriers along this portion of Troy Road.

Our family home is located within 60 feet or so of Route 80. Route 80 is 10 lanes wide there. The traffic is extra heavy, because you have Route 280 emptying in on the east and Route 287 emptying into Route 80 on the west. My family's home dates from the middle part of the 18th century -- the oldest part. There are other historic structures on that road, as well. At least four others are directly impacted by the noise. I cannot begin to tell you what the noise pollution is like there.

I have spent many, many, many sleepless nights at home with the windows shut and the radio on to try to drown out the noise of the trucks. They are the main offenders, but there are many, many trucks. You have to virtually shout to be heard in the yard. It is really unusable.

I have heard people here this afternoon, many of them expressing disapproval of the expenditure of taxpayer money and calling these sound barriers "pork barrel." Well, my family pays taxes, too; we pay a lot of taxes. It was my understanding that the noise barriers were funded for a Type I project through the Federal Highway Trust Fund and a small amount of State Transportation funding, which are basically funded through gasoline taxes. That was my understanding.

Really, that is just an application of the standard policy doctrine in environmental law, which is that the polluters should pay for the pollution they create. The drivers on the interstates are creating noise pollution, incredible amounts of noise pollution.

Now, as I said, I don't know what the status is of the noise studies that were done on this segment of the highway. I am here to urge construction of the barriers. In terms of funding, I know a Type II does not qualify, at this point at least, for Federal Highway funds. But I am wondering: Have you explored the application -- possibly getting funds under the ISTEA legislation, you know, the Intermodal Surface



Transportation Efficiency Act, which became law in 1991, and which Senator Lautenberg, I understood, had a great role in passing? I read all the time in the newspapers about all the money will be coming to New Jersey to be spent on transportation-related projects.

ASSEMBLYMAN DeCROCE: There is ISTEA money out there, depending on how it is used. Tonight, we are just taking testimony to find out what your concerns are. The Department makes the determination on how those dollars are going to be used.

MS. KIMBELL: Well, I wonder, in an area like this, where there are at least four historic structures that I know of along this little stretch of Troy Road which are directly impacted, whether it wouldn't be appropriate to consider using some of the funds under the ISTEA Act that--

ASSEMBLYMAN DeCROCE: That could be a possibility, but I can't promise you that. I don't know, but it is a possibility, I believe.

MS. KIMBELL: All right. Is it something I could explore further with somebody?

ASSEMBLYMAN DeCROCE: Well, it is something you could do, probably through my office out of Parsippany, if you would like to come over and talk to us about it. Maybe we could contact DOT to see if it is even feasible.

MS. KIMBELL: Okay. I talked to someone in the Federal Highway Department down in Washington about it. He suggested talking to a man, Mr. Dwight Young, I believe, in Trenton.

ASSEMBLYMAN DeCROCE: I am not familiar with Mr. Young.

MS. KIMBELL: Okay. Well, that is basically my-- I really just want to urge construction of the barriers. I think that as legislators, you must be aware that there are other values in society, other than just the dollar.

ASSEMBLYMAN DeCROCE: We understand, but, Ms. Kimball, tonight we are here to listen to everybody, pro and con frankly, to get their views and send them down to the Department. Right now, if you know, the Commissioner is going around the State of New Jersey taking-- He is trying to get citizen input so he can determine the budget for next year. We feel, because the noise barriers -- because of the confluence of the highways in this area-- We felt that it would be a good area to have the noise barrier hearings in, so that everybody could put their points forward. We want to try to get as much of that information as possible down to the Commissioner. That is why we are meeting tonight.

MS. KIMBELL: Well, thank you very much for this opportunity.

ASSEMBLYMAN DeCROCE: The next person I am going to call is Mr. Walter Walsh, of Parsippany.

I would ask, if you could, to limit your remarks to about five minutes, if that is possible, so I can get everybody in. If we have extra time, you can come back again. I have no problem with that.

Mr. Walter Walsh? (no response) Margaret Stephens, of Roselle Park.

M A R G A R E T J. S T E P H E N S: I am Margaret Stephens, of Roselle Park. I was here this afternoon, and I want to say that I learned a few things that I had wondered about. Some questions were answered for me then.

For instance, although where I live I am not directly impacted by the highways, I am a frequent traveler on the Garden State Parkway, the Turnpike, Route 78, and Route 24. For instance, one of the things that I had wondered about was coming up on Route 24 from the Parkway and Route 78, why there are noise walls protecting a cemetery. That question was answered this afternoon for me. However, it leads to another point.

Even though Federal moneys are available for certain portions of roads, I would think that sound judgment should come into the picture somewhere. Common sense was mentioned this afternoon. I realize that when you look at a map, you can't always tell on a stretch of road, you know, what might be there. However, it should not be out of order for someone to go take a look, someone in the area--

ASSEMBLYMAN DeCROCE: None of us disagree with your statement. You're right. Frankly, someone at DOT missed the boat on that particular area -- a couple of hundred yards.

MS. STEPHENS: Well, I refer to my Turnpike travels. For 13 years, I commuted weekends 600 miles south to relieve my sister of taking care of aging parents. In that time, on the Turnpike, there was one particular stretch of road where there was a fairly new development of houses. I enjoyed looking at the houses, what they were doing to individualize their backyards. All of a sudden I realized I was past the milepost, and I thought, "Where are those houses?" What had happened was, the Turnpike had put up trees, rapidly growing trees.

Now, there was a reference this afternoon that trees took too long. Not all trees. There are varieties that grow faster than others. That thicket at a milepost in the 20s on the Turnpike South is so thick now that you can't even see the houses, including the chimneys. I don't know what sound provision they make for the families. However, sight-wise, you can't even find the houses.

I am here to plead, really, where possible, for you to try to use shrubby trees. For instance, the fast-growing trees are graffiti proof. They provide excellent sight barriers. They do have a breakaway value. In Europe, some of the highway barriers are purposely shrubby that gives a little, so if a vehicle impacts it, it absorbs some of the speed and prevents more serious accidents. I know you are here for sound and noise tonight, but that is another plus for some types of greenery in certain places.

I should also point out that green barriers, where feasible, are environmentally correct. They prevent erosion of the soil and will help to prevent flooding in some areas by absorbing water.

In some places, I can't remember exactly where, but I have been on stretches of the highways where the walls are exceedingly high, perhaps with good reason, but close to the roadway. It seems as though there are walls on both sides. It is a confining feeling, a prisonlike feeling that was referred to this afternoon. I suggest to you that where too much of that might be placed, it might lead to driver hypnosis. People who are claustrophobic, to a degree, will feel that.

For myself, often as a long-distance driver, I find it very relaxing to get glimpses of the countryside. I utilize certain landmarks. I look forward to them as I go down the roadway. It gives me a sense of where I am in relation to my time. Frankly, I look forward to seeing certain things on the highway. In some places, those are gone because of the walls.

In closing, I would like to say that I have not researched the cost of greenery versus the walls. However, I don't think it would be any more expensive. Where feasible, I think that would have some pluses that should be considered.

Thank you for listening.

ASSEMBLYMAN DeCROCE: Thank you very much, Ms. Stephens. We appreciate your comments.

Does anyone have a question of Ms. Stephens? (no response)

All right, thank you.

Dr. Norman Rothenberg? (no response) Maude Ruse, of Denville, the Concerned Citizens Association? (no response) Maude Ruse? No? No Dr. Rothenberg either? (no response) Bob Yutko, Coalition for a Pollution Free Harding? (no response)

L I N D A V O L A: (speaking from audience) They're coming. They are here after me. I should be speaking before them.

ASSEMBLYMAN DeCROCE: Your name?

MS. VOLA: Linda Vola.

ASSEMBLYMAN DeCROCE: Come on up, Linda. I have you right here.

If anyone wants to speak tonight, if you have not registered, there is a pad, which someone should be passing around, or maybe there is one over-- Anyone who wants to speak, please fill out a sheet, and we will get you up here.

MS. VOLA: My name is Linda Vola. I am from Harding Township, on Tiger Lily Lane, which is the street right before the Harder Road exit. So as you exit off of Harder Road, you kind of put your brakes on right in front of my house.

Mr. Wild, who was scheduled to speak earlier at the 3:00 session, and Mr. Forbes, who was also scheduled, probably will not be here to speak to represent the sound barriers. But on their behalf, just to let you know, Mr. Forbes lives within 100 feet of the road, right next to what we call the "truck stop" in Harding. He endures all the trucks braking in front of his house and pulling into the truck stop and staying there 24 hours a day. Mr. Wild lives within 45 feet of the road. His house was built in the early '50s, before anyone even thought of Route 287.

I have prepared the following comments. However, my feelings supporting the sound barriers are shared by a group of active Harding Township community members, organized under the name of Coalition for a Pollution Free Harding. Our major thrust is support of the construction of Type I sound barriers, or earth berms in Harding Township, made of any material or design, for the protection of all homes along Route 287 in Harding Township for the reduction of noise pollution.

On April 20, I attended a meeting in Bernardsville to find out about DOT's plans for widening Route 287 and their plans for installation of sound barriers. Since that time, I have worked closely with friends, neighbors, and the members of

the Harding Township Council to learn about sound barriers, educate our elected officials about the sound barrier issue, and gain support from the community for installation of the sound barriers. On August 8, our town passed a resolution requesting sound barriers be constructed along the entire three-mile length of Route 287 that passes through Harding.

Letters were written, meetings were attended, discussions were held with DOT employees, educational sessions were held on sound barriers, sound and traffic studies were commissioned by Harding Township, and testimony was given at at least two DOT public forums and one DEPE public forum. At the last DOT forum, a videotape prepared by DOT explained in detail the effectiveness of sound barriers.

Assemblyman DeCroke stated in his news release that, "The basic question to be raised and answered at this hearing is a simple one: Do the walls work, and at what cost?" Let me suggest that in addition to these forums, you and the Transportation Committee do some very simple homework.

Ask Commissioner Frank Wilson and Domineck Billera, who are here from DOT, as well as John Mycoff, Manager of Community Relations, to share with you the letters and documentation they have received to date in connection with the sound barriers. Ask them to allow you to review the public testimony given at their official public hearings. Ask Commissioner Shinn, Larry Baier, and DEPE for copies of their letters and public testimony given at their meetings on Route 287 and the sound barriers. I strongly encourage you to carefully read the data of the sound and engineering studies commissioned by experts on behalf of the Harding Township Committee and submitted earlier by Councilman Louis Lanzerotti. There is a lot of very good data in there.

ASSEMBLYMAN DeCROCE: We have that; we have that information.

MS. VOLA: There is a plethora of information out there on community support for sound barriers, as well as statistical data supporting the construction of sound barriers. I think if you took the time to only validate the testimony given to date, you would see that the overwhelming majority of people willing to speak out on the issue have been in favor of sound barriers. After sitting for two and a half hours this afternoon, at least initially, the great majority of the people there were for the barriers.

There is another issue regarding support of the sound barriers. The most frequent comment that I hear from those opposed to sound barriers are individuals who do not like to look at the walls as they drive by. Let me comment first that there has been a dramatic increase in traffic on Route 287, especially with the increase in truck traffic, since it opened up to the New York Thruway. Maybe those concerned about how the walls look would be better served by keeping their eyes on the road and the perils of traffic around them. The walls are not protecting the distant vistas and sights, but prevent you, the passersby, from peeking in my windows.

Secondly, just as those that testified earlier who are opposed to the barriers, they are just passing through. They zip by the walls, sometimes at speeds exceeding 65 miles an hour. The residents, however, do not have that luxury. We live with the noise 24 hours a day, 7 days a week. It continues through the night, and gets louder especially with the pattern of trucks passing by late at night and early in the morning trying to avoid rush hour. We cannot tune it out. If we try to sit out on our decks or in our yards, we must shout at each other to be heard over the din. We cannot even hear the crickets that a former speaker referenced, jokingly, I assume, that were making so much noise they drown out the highway noise. Not at my house. He obviously does not live that close to the road. We have to straighten the pictures on

our walls moved by the rattle of trucks and soothe our children, wakened by the noise of a truck speeding by and applying brakes or some mechanism that gives off a loud machine gun rat tat tat sound.

Follow the example of Senator Gordon MacInnes and the Harding Township officials and visit some of our homes along Route 287. Come to my house. Listen to the noise now with only four lanes of traffic and just imagine how bad it will be when it expands to six lanes, or in some other areas, where it is up to ten lanes.

To answer the concern expressed over aesthetics, follow the advice and example of others that have recommended the planting of vines and trees in front of the barriers. Look at the barriers in Morristown along Route 287, if you can see them. They are barely noticeable for the greenery, with no signs of graffiti anywhere.

I am lucky, my house is set back about 150 feet from the road. My neighbor, whose house was built long before Route 287, is only 45 feet from the passing din of the road. Don't admonish me for purchasing a home so close to the road. I have lived near the highway for over 13 years. I was told for years that the sound barriers were coming. Nothing was mentioned about an expanding road. When I bought my home, the highway was not yet opened up to the New York Thruway and the noise was bearable. Besides, if I had not purchased my home, someone else would be here in my place challenging you and DOT's policies.

I am pleased that you are reviewing the criteria established over 10 years ago by DOT for construction of sound barriers. I know that the government works slowly, but to maintain criteria for 10 years without review is ludicrous. What if businesses waited 10 years to consider policy changes? What if our schools only reviewed their policies and programs every 10 years?



It is hard to imagine, but I have been told by DOT officials that the cost to construct barriers has not changed in 10 years. Regardless of spiraling labor and construction costs, if that is still possibly true, you cannot buy as much today with \$40,000 that you could 10 years ago. If nothing else, the dollar value used for approving construction should be raised based upon inflation factors and the net present value of money compared to what it was worth 10 years ago.

In addition, the criteria used by DOT to determine if sound barriers should be constructed must be reviewed and changed. Why let the outdated figure of \$40,000 per residence be the determining factor for what DOT considers cost-effective? Why is that the overriding factor, and all other conditions that the community meets to have sound barriers installed ignored? What is the similar cost factor that is applied to determine the cost-effectiveness of adding two additional lanes? If one even exists, why does that supersede the needs of the communities that touch the highway?

One of the Transportation Committee members, earlier, suggested the problem of where to construct sound barriers should be addressed at the county level. However, a resolution is required by the towns affected, not by the county. Also, presently DOT looks at every individual group of homes to determine the cost of sound barriers. If they must receive permission of each town to construct sound barriers, why can't they look at the total number of town residences that are impacted by the noise and use that as the factor to determine the cost of constructing the entire length of walls needed in that town?

If, for example, Harding has 300 homes impacted by the noise and needs six miles of barriers at \$2 million a mile, that would meet the \$40,000 criteria. Instead, what they are doing is looking at small pockets of homes separately from each other. This always disadvantages Harding Township, since we

are a township fighting to maintain our rural atmosphere by requiring three-acre zoning. Even though the township residents probably pay high State and Federal taxes, we cannot get protected by barriers constructed with State and Federal money that have been constructed to protect residents, golf courses, and cemeteries that do not even come close to the tax burden that we share. Without the sound barriers, our property values will fall. The answer from DOT to date, however, has been, "That's not our policy."

Also, DOT's criteria only requires that a peak period exceeding 64 decibels be utilized. They should give extra weight to the fact that we are experiencing in excess of 64 dB. The sound study done on my street is 70 dB to 75 dB, 24 hours a day, 7 days a week.

Our quality of life is important. Do not judge the importance of these walls by those passing through. Do not assume that adding another two lanes will solve the problems of the average commuter. As more and more employees are asked to telecommute and car pool to meet Federal pollution standards, the trucks will be a dominating factor and will overwhelm us with their noise. You are helping the trucks bypass Turnpike revenues by letting them pass by our houses on Route 287 for free. Protect us from their constant noise and smell and the danger of trucks and cars barreling off the road.

Regardless of the fact that sound barriers are not constructed for safety reasons, their structural strength and integrity have proven strong enough to deter a truck from careening off of the road into homes. We have had two recent incidents of cars flying off of Route 287 into Harding Township. Most of the Harding houses are level or a few feet below the highway. We do not have the luxury of height distance protecting us from the traffic.

I want to comment on the DOT statement made earlier by Mr. Rosenberg. Both myself and Council member Lou Lanzerotti were surprised to hear that Harding was working closely with

DOT on the sound barrier issue. Our resolution was sent with a letter to Commissioner Wilson, as referenced, on August 8, and to date the town has not yet received a response from DOT. We are exactly where we stood back in April as far as where DOT plans on installing barriers per their outdated criteria.

Do not discriminate against us because we don't meet arbitrary, outdated criteria established by DOT. Examine the facts for yourselves. Do your homework and come and listen to the noise of the road.

Thank you for this opportunity to participate in the first State-sponsored public hearing on sound barriers that I have attended which allowed questions and answers on the subject so everyone in the audience could hear the responses.

ASSEMBLYMAN DeCROCE: Thank you, Ms. Vola.

If we have a group of people from Harding, may we have one, two, or three of you represent the entire group, because I have about 27 people to go through this evening. We'll never make it.

UNIDENTIFIED SPEAKER FROM AUDIENCE: I'll yield.

ASSEMBLYMAN DeCROCE: Three or four I don't mind. Four -- you, young lady; the gentleman back there; this gentleman over here; and that lady over there. Okay?

Give us your name, please.

P A T R I C I A Y U T K O: I am Pat Yutko, Brook Drive North, Harding Township.

A lot of what Linda said-- I will try to take some of that out for you.

Our town has spent a lot of money on noise studies. In most cases, we met the dB levels, and we exceed them. As Linda said, this is on a 24-hour-a-day basis. We do not have peaks and valleys. Some of our sound impulses -- and I am sure Mr. Lanzerotti provided you with a chart -- go up to 84 decibels. The highest impulses are occurring between the hours of 4:30 a.m. and 7:00 a.m. I have two little children, so I know that for a fact.

If there is not enough money available for the walls where they are needed, I am wondering, why can't you do the highway then in increments, in seven-mile increments? I understand there are 21 miles of Route 287 that are going to be expanded. I don't see why it couldn't be done in seven-mile increments. Give the walls where they are needed, and then the next year, as money is accrued or appropriated, do the next seven miles. It goes from three lanes to two lanes now anyway. Just a thought.

Our Township has passed a unanimous resolution for sound walls. I don't think two additional lanes ripping through the town is going to make it any better for us.

Our citizens find it prejudicial to deny us sound walls solely on this density issue. Taxes are paid on every square inch of our property. This is really a quality of life issue. Those of us affected by the highway are entitled to the same quality of life as everyone else. Our property value is decreasing as the noise level rises. Our windows shake and rattle as the roar of the trucks increases. Our windows cannot be opened. We never wake to chirping birds or barking dogs or gentle breezes. The enjoyment of our land has diminished. Backyard cookouts never happen. I am only 45 feet from the highway. Believe me, they never happen.

Sadly, some parents will not let their children play with my children, particularly since the propane truck barreled off the highway on Route 287 in New York. That is a big concern of theirs.

Most of Harding is level with the highway. In recent months, cars have careened off it. One in August resulted in a fatality. That was on Brook Drive South. My children play on that street; we bike ride down there. On Goosedown Road, another car came off the road. Our Coalition for a Pollution Free Harding has called, written, met with, faxed, invited,

hosted, campaigned, petitioned, begged, borrowed, and pleaded for someone to listen to us. We hope we are appealing now to the right people.

We have worked with Senators, Congressmen, Assemblypersons, judges, lawyers, mayors, and DOT, and we are no further today than we were when we started. I implore you all to rethink the policy, which is 10 years old and outdated. I know, as a teacher, if our school systems taught with a policy that was 10 years old, the State would come in and take us over. So I think it is time to rethink and relook.

We have presented viable options to DOT. Earth berms: signing off on our own property to put these earth berms in partial walls; shared costs; less expensive materials. As Linda stated, looking at our numbers, the people who are impacted in an accumulated sense-- Take the numbers of people, because we have two town home units in town-- Take our numbers and divide it by the mile of wall, and we would clearly make the density cutoff.

Since the linkup to New York, the noise on Route 287, as we have heard over and over again, has really impacted us greatly.

I think that is really about all I want to say. Jeff Warsh, I think it was-- I think you did address-- I have to commend you. You are the first person who addressed the fact that these do have a safety factor to them. DOT -- their own strength engineers are very proud of the fact that it stopped a truck on Route 17. They said to me on the phone, "If the wall wasn't there, the house would have taken a lick." I think we have to think that these are serving two purposes here.

That's it.

ASSEMBLYMAN DeCROCE: Thank you very much. May we have your testimony?

MS. YUTKO: My notes?

ASSEMBLYMAN DeCROCE: Sure.

MS. YUTKO: Oh, they're ragged.

ASSEMBLYMAN DeCROCE: We don't mind. (witness complies)

MS. YUTKO: Mr. Chairman, thank you.

ASSEMBLYMAN DeCROCE: The next gentleman?

C H A R L E S S H A R P: I may have to do some adjustment here. (referring to microphone)

ASSEMBLYMAN DeCROCE: You may do that, sir.

MR. SHARP: My name is Charles Sharp. I live at 1 Tiger Lily Lane in Harding Township, and that was my wife, I am proud to say.

My comments are for those who object to the sound barriers on an aesthetic basis. They claim the walls are ugly, or that they are the canvas for graffiti artists, or they keep motorists from seeing the trees. We heard that this evening.

As to the beauty of the walls, there are some sound barriers in Morristown on Route 287 that are ivy covered and have become very attractive. Often, these walls-- There are some places where you can see that they actually hide the rear of some commercial structures that service other roads, or face other roads other than Route 287.

But are bridges and road surfaces beautiful? No, but they are utilitarian. What we have done so far to try to place a different standard on those sound barriers than we do on every other piece of the highway-- We look at the bridges, and we do not say that they are ugly. They are there; they have a purpose. The sound barriers also have a purpose.

Is there graffiti on the sound barriers? There is very little. But if the decision is made to build something or not to build something based on whether someone will draw on it, we can build nothing. We can build no buildings; we can build no bridges; we can build no roads. I think it would be a better use of our funds also to go after the vandals, rather than keep us from having the sound barriers we need.

For those of you who are so concerned about not being able to see the trees, I respectfully suggest that you get out of your cars and take a walk in the woods. There are those of us who live along Route 287 who own the trees, and we would rather see the back of sound barriers than see the cars and trucks speeding by.

A local politician running for office awhile back -- or just recently, actually -- ran ads with a child lamenting the loss of trees due to the sound barriers. Nothing in his ad had any mention of the huge number of trees that will be taken down to add that extra corridor to Route 287. As a matter of fact, a sound barrier is less than a foot wide, where another lane on Route 287 will be about 20 times that.

Some have even compared the sound barriers, obviously with disdain as I have seen it in the paper, to the mass and architecture of the Great Wall of China. I keep hearing that we are going to have another Great Wall of China, with the same ugly atmosphere to it. For those people who espouse that belief, I have nothing but contempt, for they are so self-centered, so egomaniacal, that they have the unmitigated gall to think that the few fleeting seconds they spend in their cars speeding past the walls should be held in higher regard than the lifetime we would spend protected by the wall.

As an historical note, the Great Wall of China was built to protect the Chinese from the barbarian hordes who were conquering most of the known world. It worked because no one said -- nobody in China said at the time -- "Gee, that sure is ugly. I don't want it in my town?" The planners at that time, who were, and still are public servants, never said, "No wall over there. Not enough pagodas in this area."

I invite all of you who are against our "Chinese Wall" to come sit on my deck and listen to the hordes of trucks that pass by 24 hours a day. Perhaps then you will understand why

we need the protection of the sound barriers, no matter how much land our pagoda sits on.

Thank you.

ASSEMBLYMAN DeCROCE: I think there was another lady -- another gentleman, I'm sorry.

J. RUSSELL PHILLIPS: Thank you. I left my comments in your office earlier today. My name is Russ Phillips. I live on Brook Drive South in Harding Township. We will get Harding out of the way, and then you can go on with the rest of your meeting.

I have a little bit different perspective, and I will admit my bias to begin with. I am pro-wall. I am also pro-truck. I spent 14 years in the transportation business. I think it is vital to the economy of this country, and there is a tremendous economic benefit to the New York/New Jersey/Connecticut metropolitan area for the improvements that are about to be undertaken on Route 287. The cost benefit analysis, though, that I think has been done that would deprive us in Harding of the wall, I think, is flawed, in that the benefit from the expanded highway will inure to the truckers who will be going from the port to Connecticut, or from the port to Pennsylvania, or from the port to wherever, or bypassing the Turnpike. They are the ones who will be getting the benefit, and we are the ones who will be getting the cost, and not having the money spent on our behalf.

You have heard an awful lot of the other arguments from Harding, but I think, from someone who would like to see the region benefit, I would also like to see moneys that could otherwise be gained if those trucks were still over on the New Jersey Turnpike spent to solve a problem. There are so many problems in our society today that seem not to have solutions, yet here we have a problem that has a solution, and we have come down to what I think is a flawed cost benefit analysis. I think if you looked at who is going to benefit, if they could



be charged the taxation through the sources of funds that are going to be made available, I would look at that cost benefit analysis as opposed to the number of homes in Harding Township.

My second point is, we have talked about the historical growth and the noise pollution that has occurred in Harding. It is really since Route 287 was completed up to New York. It is now around the clock. But no one has talked about what it is going to be like in the future to say that, if we are already severely impacted. I am using that term, because that is what was given to me by DOT. I am in one of the severely impacted homes that back up to Route 287. That's today. What is it going to be when we have six lanes? The lane on the other side of the highway is going to be even closer now, adding more noise pollution because they are going to have cut down on that side of the highway, too.

The cost benefit analysis is only going to get worse in the future. Don't tell me there is no inflation. I am on Wall Street now -- no pun intended -- and we deal with inflation all the time. It is going to be less expensive to put the walls in now while the Federal funding is available, while the highway is being widened now, than it is if we wait until it becomes an intolerable solution and you go through lots of court exercises, and the walls have to be put in later.

You are going to have to do something. We have the solution now. I believe the moneys are available, and I would strongly urge you to consider putting the walls in now.

Thank you.

ASSEMBLYMAN DeCROCE: Thank you.

You are from Harding, and you will be the last one we are going to hear from the Harding area.

**M A R G E   W I L D:** My name is Marge Wild. I am from Tiger Lily Lane. My house was built in 1959, before the highway was ever thought of. I love my house. I have decorated it beautifully. It is very aesthetically beautiful, as that

little old lady wanted everything to be. The noise decibel in my yard is 70 to 75. That is way out of line for my health, my hearing, my asthmatic condition. I married my husband 10 years ago, and I was not on a pulmonary machine when I moved there. Now I am, from the fumes. I am going to be forced to let go of my house because of my breathing.

I just feel that safety-wise, you know-- I am 45 feet from the highway. An 81-year-old woman drove off the highway last spring and killed herself. She could have killed a child in someone's yard. Fortunately, no child happened to be there.

We have been robbed once. Safety is a very strong point for me. There were two car fires that needed two fire companies to be put out. The flames were leaping over my fence. I am 45 feet from the highway. We find rubber tires on our roof.

Mr. DeCroce, may I ask you, do you live near any major arteries?

ASSEMBLYMAN DeCROCE: Route 80.

MS. WILD: You live near Route 80. Well, do you live 45 feet-- I know it is bold to ask you this--

ASSEMBLYMAN DeCROCE: No, that's okay.

MS. WILD: What can I say? I love my house. I love Harding. The only thing is, I worry about the safety of my grandchildren when they come to visit, because of someone veering off the road. Also, I think I am going to be forced to move because of the fumes. I have a pulmonary machine that I use morning and night. The fumes are really bad. Also, the truck traffic-- They are not taking the Turnpike anymore. They want to use a free road to wherever they are going. It is getting worse and worse.

You should "come on to my house," like Rosemary Clooney used to say. Come on to my house and see.

ASSEMBLYMAN DeCROCE: Thank you, Ms. Wild.

Let me just say for the benefit of everyone here, the reason we are here tonight-- These gentlemen are from all over the State of New Jersey. This is not just a Morris County problem. This is a problem that happens in different areas of the State of New Jersey. Unfortunately, we have a confluence of highways, as I mentioned before. We see all of these roads with these barriers, with these noise barriers. We thought this would be the best place to get a good representative group of people so we could hear both sides.

That is why we're here. We are concerned about your children; we are concerned about your grandchildren, your pollution. We don't want you not to have the same quality of life as others, but we have to do it in the form that we have to do it in. This is one of the ways we can do it, by holding hearings and compiling all this information. Hopefully, we can get it out to DOT and have them work along with us.

You have to understand, we have a new administration in Trenton. We have a new Commissioner. There obviously -- hopefully -- will be new policies, and maybe new thoughts. I don't know that all the policies won't change. I don't know that they will, and I don't know that they won't, but at least we can try. That is why we are here tonight.

Now, Marge, I am going to go on to Mr. Charles Bates. Is he here yet? (no response) He signed in, but I guess he didn't come in.

Lewis Goodfriend -- Mr. Goodfriend?

**L E W I S   S .   G O O D F R I E N D ,   P . E . :** My name is Lewis Goodfriend. I am a consulting engineer in acoustics. I am not here speaking on behalf of any of the municipalities in particular, although my firm has been consultant to a number of municipalities along Route 287 and Route 80, including Harding.

I would like to address some comments on highway noise and the quality of life. I would like to start out, also, by saying that I have been consultant to the Federal Highway

Administration, part of the Federal DOT, and the New Jersey Department of Transportation, so I am not really on either side here. I am here to talk about some of the concepts and what might be done to improve the quality of life through noise abatement along our highways.

The Environmental Protection Agency Report to the President on Noise and Its Effects, submitted by EPA in 1971, which, incidentally, I helped to prepare, established long-term goals for noise exposure of Americans outside of the workplace. These long-term goals were published in a follow-up document prepared by EPA. At about the same time, the Department of Transportation published its highway noise impact criteria in the Code of Federal Regulations, Title 23, Part 772. Also at the same time, the Department of Housing and urban Development published its "Guidelines" document setting noise criteria for approval of federally supported housing. Because of matters related to both cost and social needs, the HUD criteria were set 10 decibels higher than the EPA long-term goals.

The DOT criteria are based on a different system of evaluation from the HUD and EPA criteria. The result is, using a 24-hour average, residential noise environments due to highway noise that would not be acceptable to EPA or HUD, caused no impact according to the DOT regulation. Although I will not go into any technical detail, I can point out that this occurs in large part because the DOT regulation was based on old traffic flow models that assumed peak traffic hours were the noisiest, and that the peak hours are usually the morning and evening rush hours. However, the modern freeway and interstate routes show totally different traffic patterns from those assumed.

Now, let's see how this affects the quality of life in a community -- urban, suburban, or suburban-rural. First, let's see what noise does to people in the residential

communities. It is widely accepted that noise levels above 45 decibels will interfere with sleep and, in some individuals, will cause wakefulness. Even if not awakened, the noise may interfere with normal sleep patterns. With windows open, this translates to about 55 dB out-of-doors. During the day, noise levels above 55 dB begin to cause interference with the intelligibility of speech in normal social situations, and above 65 dB readily interferes with speech. Such levels require raised voices to communicate at the dinner table or out-of-doors on a deck or in the yard.

In suburban-rural communities, levels above the quiet background can cause distraction. The levels of passing trucks can interfere with creative activity, whether reading, writing, composing, or studying. Now, how bad is this if it only happens once a day? Not very bad. Once every six minutes such a sound might be annoying, but three to six times a minute, and the noise, at the same level in decibels, will be very annoying.

If we change our time scale and say that before the highway, the worst hour noise level due to rush hour traffic yielded an average of 67 decibels. Now, with a new or widened highway, the noise level is still only 67 dB in the rush hour. However, it is 65 dB to 67 dB for 5 or 6 hours or more, including some early morning hours, which used to be quiet periods when automobile traffic has dropped, and the trucks, that stayed out of rush hour traffic are moving at typical highway speeds. What has happened is that the sound that might have been slightly annoying for an hour around the time people are on their way to work or on their way home, has become an almost continuous disturbance, interfering with creative activity, some conversation, and sleep.

This is the reason that the State DOT, using the Federal DOT criteria for impact, does not always get reasonable answers as to where noise control is needed. It is clear to me

that a slightly different interpretation of the Federal regulation would yield a more appropriate State guideline for the application of noise control.

Now, briefly, I will talk about the noise control methods: The most widely used highway noise control measure is the installation of berms or barriers adjacent to the roadway. No other on right-of-way method yields noise reduction close to that provided by these measures. However, there are additional measures that can yield better quality of life for the highway neighbors. These include barriers on the residential properties, where topography indicates that a barrier along the right-of-way is not going to be effective. Also appropriate would be grants, such as those provided by the FAA for soundproofing residences near airports. Such grants to highway neighbors could be used to improve the sound isolation of the homes and, in some cases, provide for adequate cooling or ventilation.

There are many locations in New Jersey where barriers at the top of a hill, on residential property, overlooking a highway, would provide substantial noise control. At present, NJDOT does not consider this to be a feasible measure. Yes, there are problems, such as who will maintain the barrier and access to the property beyond the barrier. However, private developers have built barriers along the edge of properties, and arranged for maintenance by a development association. Clearly, there are several available noise control measures in addition to highway right-of-way noise barriers. Soundproofing homes, and property line noise barriers, are much less expensive than right-of-way noise barriers.

In conclusion, I should like to stress that with no further legislation, only a literal interpretation of the Federal regulations, the NJDOT should be able to provide adequate noise abatement in communities where the noise impact is clear. Further, the use of off-highway noise barriers and

DOT funding of improvement of residential sound isolation, should improve the quality of life of most of those people not now protected against excessive levels of highway noise, and at reasonable cost.

Thank you.

ASSEMBLYMAN DeCROCE: Thank you.

Does anyone want to question this gentleman?  
Anybody? (no response)

Do we have a copy of your testimony?

MR. GOODFRIEND: Yes, sir.

ASSEMBLYMAN DeCROCE: Fine. Thank you.

Helene Cook, from the Federal Highway Administration.

**H E L E N E C O O K:** Good evening. My name is Helene Cook, and I am with the Federal Highway Administration. I am the Office Noise Coordinator. What the Federal Highway Administration is responsible for is-- We administer the Federal aid program for the construction of highways in New Jersey.

I realize, especially looking at the turnout here, that highway traffic noise is an increasing problem plaguing communities in which we all live and work. It is also a problem which receives a lot of attention in the highway community, as well.

Federal regulations have been around for a number of years, about 25, beginning with NEPA -- the National Environmental Policy Act of 1969. This established, basically, a very broad authority and responsibility for evaluating and mitigating adverse environmental impacts, which include noise.

More specifically, in 1970, the Federal Aid Highway Act assigned the FHWA -- the Federal Highway Administration -- the responsibility to develop standards for mitigating highway traffic noise. The current regulation is Title 23 of the United States Code of Federal Regulations, Part 772. This is the Federal Highway Administration regulation for mitigation of highway traffic noise.

I have brought copies of this regulation with me tonight, and I will place them on the table so you can pick them up at the end of the meeting and take a look at them at your leisure.

ASSEMBLYMAN DeCROCE: Can you explain what it means? I mean, it is great to recite all these regulations, but we have to know what is happening with them.

MS. COOK: That's coming.

I am going to briefly run through some of the highlights of the regulations so you will know what is contained in them. Then, like I said, you can look at them at your leisure, and take your time.

One of the important things contained in the regulations is the definition of when a noise impact occurs. Noise impact occurs when the projected noise levels approach or exceed the noise abatement criteria -- that is contained in a table in the regulations. It is spelled out, and you can take a look at that -- or, when the projected noise levels substantially increase over the existing noise levels. Either of those criteria have to apply for an impact.

The regulations place projects into one of two classifications: The first one is a Type I project. That is where noise abatement is part of a new or physically altered existing highway. This program is mandatory, so when there is a new project, or one where the highway is being physically altered, that would be a significant change in the horizontal or vertical alignment, or a widening. That would be classified as physical alternation. Noise abatement must be considered for those projects.

A Type II project is where noise abatement is considered as a retrofit feature on an existing highway. This program is voluntary; it is not mandatory. Currently, there are very few of these projects under consideration in New Jersey, because there are many, many competing uses for a very limited amount of Federal funds.



ASSEMBLYMAN DeCROCE: May I stop you for a second?

MS. COOK: Sure.

ASSEMBLYMAN DeCROCE: If noise abatement would be considered under that last regulation, then it obviously would apply to the new HOV lanes going from lower Bridgeton all the way through Morristown.

MS. COOK: No. The HOV lanes are a widening. That is a Type I project.

ASSEMBLYMAN DeCROCE: I thought you said they qualify for noise abatement.

MS. COOK: That is a Type I project, so noise abatement must be considered on that type of project.

ASSEMBLYMAN DeCROCE: That is what I'm saying.

MS. COOK: Right. Correct.

ASSEMBLYMAN DeCROCE: What kind of noise abatement are we talking about?

MS. COOK: Well, I don't know the specifics of the project. I am sure there was a noise study done and all the options were considered. I am going to get into what is involved in a noise study, but I do not know the specifics of the project. It was a requirement that a study be performed, and I am sure one was.

MS. KIMBELL: (speaking from audience) Considered, but not mandated.

ASSEMBLYMAN DeCROCE: Please.

MS. COOK: No. Consideration of noise abatement is a mandatory requirement.

ASSEMBLYMAN DeCROCE: Through the Chair, please.

MS. COOK: I have discussed Types I and II projects.

What is required in a noise analysis? The regulations state that the highway agency -- in our case that would be the DOT -- is responsible for performing a noise analysis, which includes the following for each alternative under study:

The first thing it must include is identifying existing activities; developed plans and undeveloped plans, for which development is planned, designed, and programmed, which may be affected by highway noise.

The second thing the analysis must include is a prediction of traffic noise level; a determination of existing noise levels; a determination of impacts; and an examination and evaluation of alternative noise abatement measures for reducing or eliminating noise impacts. All of those elements are contained in the noise analysis.

For noise abatement, primary consideration is given to exterior areas where frequent human use occurs. Examples of those areas would be: someone's backyard, a school playground, an athletic field, a park. Those are exterior areas.

Interior areas are only considered when no exterior areas have been affected by traffic noise. It is rare for the interior area to control, because usually an exterior area would be affected first. So that is usually the controlling criteria.

If potential traffic noise impacts are identified, noise abatement is considered and implemented if found reasonable and feasible.

Views of impacted residents are a major consideration for reasonableness. The goal of noise abatement is to obtain a substantial reduction in noise levels using abatement measures. State highway agencies define substantial reduction as a 5-decibel to 10-decibel reduction. Just to give you an example of what that means, a 10 decibel reduction is perceived as a half of the original noise level.

The regulations say that plans and specs will not be approved by the Federal Highway Administration unless reasonable and feasible noise abatement measures are incorporated.

As far as Federal participation goes, Federal funds may be used for noise abatement measures where a traffic noise impact has been identified; noise abatement measures will reduce traffic noise impact; and the benefits of noise abatement will outweigh the costs and adverse social, economic, and environmental effects. These considerations are addressed in a noise study report that is prepared by DOT at preliminary design.

When you think of noise abatement, you usually think of noise barriers, right? There are other abatement measures that are discussed in the regulations. They also must be considered in the analysis. Some of these other measures are changing the horizontal and vertical alignment of the roadway. An example of that would be depressing a highway to break the line of sight, or changing the horizontal alignment to avoid impacts. This is really feasible only on new alignments and projects with a new facility, because, really, with widening projects it would not apply. So it is usually feasible with a new facility.

Traffic management measures: changing signal timing, reducing the speed limit, restricting trucks to certain hours, and detouring trucks, if there is an alternate route available. That is another abatement strategy.

Acquiring property as a buffer zone: This, especially in New Jersey, is rarely ever feasible, because there is development occurring all along existing facilities. It is a very overdeveloped State, and large amounts of properties need to be acquired to provide those buffer zones.

Noise insulation of public use or nonprofit institutional structures: This has been considered in New Jersey for schools. I am not sure what the final status is of that.

A lot of people bring up vegetation. Why can't you plant some trees out in front of my house? You need 61 meters -- that is about 200 feet -- of very, very dense vegetation to

provide a 10-decibel reduction. That is a halving of the noise level. Most of the time, this is not feasible. We are very constricted with right-of-way. A lot of properties abut the facility, and it is very difficult to achieve that reduction.

What we will do, if you have vegetation out there and we are not affecting it, we will leave it there, but it really just provides psychological relief. It will not provide much of a reduction in noise.

The regs require that local officials shall be informed of future noise levels for both developed and undeveloped land or properties in the immediate vicinity of the project. Also, they should be given information to prevent future land development from becoming incompatible with the predicted noise levels of the facility. This is to prevent development from occurring from being incompatible with highway growth.

In conclusion, like all regulations, the 23 CFR 772 -- which I have just been describing to you -- contains a number of terms which are open to interpretation. Flexibility has been demonstrated by the fact that some states have constructed barriers and other states have not constructed any barriers at all. Most states have defined and interpreted the regulations to meet their needs and to provide a fair and consistent method of analysis for noise abatement.

In New Jersey, we worked for many, many years with the State to achieve a policy which is uniform and consistent, but also allows some flexibility and decision making.

I have also brought with me a copy of a paper that was prepared by our Washington office that might shed some more light on where we are coming from with noise. So, again, I will put them on the table and you can pick them up after the meeting. If there are not enough available, give me your name and address and I will be happy to send you one.

ASSEMBLYMAN DeCROCE: Thank you.

Are there any questions from the Committee at all?

ASSEMBLYMAN OROS: There is a lot of data here.

ASSEMBLYMAN DeCROCE: Yes, there is a lot of data.

Ms. Cook, thank you very much.

Jeffrey and Peggy Mark, please, of Chatham.

**J E F F R E Y   R.   M A R K:** I am going to try to go solo on this one, okay?

ASSEMBLYMAN DeCROCE: Okay.

MR. MARK: First of all, let me comment: I was very impressed with and sympathetic toward the Harding Township group here tonight. I must confess that I heard views I have not heard before. I will preface also by saying, my objections to the walls are not the walls per se. It is the walls that are wasted; those walls that seem to be out in areas where they serve no function at all. I am stating this for several reasons, one of which is I don't want to get stoned driving through Harding Township. Okay? (laughter)

ASSEMBLYMAN DeCROCE: Why don't you tell us where those walls are then? We will protect you.

MR. MARK: I would like to start off-- Can everybody hear me okay? (affirmative response)

I had a letter published in The Star-Ledger a couple of months ago. I will start off reading that. My comments are not going to be quite as long, quite honestly, or as erudite as some that I heard this evening, but, hopefully, I will make my point.

Every day, inch by inch, mile by mile, a double encroachment is being inflicted on all New Jersey taxpayers. The great wall of New Jersey, if I may refer to that -- where is that gentleman -- is spreading like a cancer out of control, costing millions and introducing visual pollutions to some of our most scenic roadways. Sound barriers may protect some residents from the noise of traffic from our highways, but all

too often it seems that the only things that are protected by these concrete creations is beautiful scenery, deer, and rabbits. The deer and rabbits pay no taxes and file no complaint about noise. How can these barriers be justified when no residences appear in earshot? It is a frightening thought that some day a drive through our State will offer scenery changes only as varied as the configuration of the walls. This insidious growth of this abomination must be stopped.

These observations are apparent to anyone who travels our highways. What is less obvious and almost as frightening is the seemingly random manner relative to possible effectiveness in which these walls are scattered about the State -- that is if they are anyplace other than Harding Township. Even Frank Wilson, the State Transportation Commissioner has stated that his Department is reexamining this costly and controversial project.

In addition to helping to provide our minimum daily requirement of eyesores, long stretches of walls can enhance eye fatigue, promote unsafe driving, help trap air pollution on the roadways, creating another form of unsafe, unhealthy driving, and -- I have been informed by engineers -- inhibit the normal melting of snow and ice, adding to hazardous road conditions in winter. It also lays the groundwork for the much anticipated falling wall zone, which we may see at some point in the future. There are probably many more side effects that could be discovered with added research.

Now, some of the people who have expressed opinions against the walls under certain conditions may appreciate the following: A new game has been created, courtesy of these walls, that is popular among many families in the course of their highway drives. With subtle variations, the gist of the game is spotting the walls that appear to be the most useless. A scale of one to ten is often used. For example: a wall

protecting a cemetery might be worth 10 points to its discoverer, where a wall on top of a 30-foot wall -- for example, at Route 78 and Summit -- might also garner 10 points. It is amazing how fast the points pile up. Rumor has it that Parker Brothers is interested in marketing their version of the game by Christmas. The sad part is, this game has no winners.

After a few fascinating brainstorming sessions with friends regarding these walls, we determined that as long as they are up, they may as well serve additional functions, or at least be as unobtrusive as possible. Consider the following:

Make some of them retractable. When the traffic is light, have them disappear again back into the ground. Why not make some of them out of a transparent material? Construct some that they can be used with ramps to accommodate a growing contingent of skateboarders. Build rest rooms every so often into the walls, or ladders so you can climb up for scenic overlooks. Or, since cost is a major problem, rent billboard space to help to offset that cost.

Last but not least, possibly construct some walls that can pivot, so that troopers can use them to set up instant roadblocks, as the wall can be swung right out into the road.

While all this pontificating and reevaluating of walls is in progress, one thing is urgent: An immediate moratorium on all new wall construction. Unlike many other mistakes made by our government, these cannot be thrown in the circular file or sold at the next State garage sale. I have a deep-seated fear that the only thing more expensive than building these monsters, will be the inevitable tearing down of many of them.

Again, let us at least prevent the cost of dismantling new monsters by halting any further wall construction until a thorough reevaluation of the whole program is completed, with comprehensive citizen input such as we have seen here tonight.

Again, my feeling is, those walls, where they are justified and provide relief for people who are genuinely in need, should be built. Those walls, for example, that I have seen, and people riding up Route 287 have seen, where you see nothing but farmland and beautiful scenery, and all of a sudden you have a one-mile or two-mile wall with nothing visible behind it-- Those are the things that I, personally, and many other people in my position object to. (applause)

ASSEMBLYMAN DeCROCE: Thank you.

Joseph Gerrity, Townsend Drive, Florham Park. Hello, Mr. Gerrity.

J O S E P H P. G E R R I T Y: Good evening. My name is Joseph Gerrity. I live at 43 Townsend Drive here in Florham Park. I have been living at this address since 1972. When I bought the house, I was well-aware of the fact that Route 24 was coming through at the rear of my property. Route 24 is about 250 feet from the back of my house. I was very glad to hear that they were going to put up sound barriers, but I am neither pro or con when it comes to the sound barriers, because I believe it is a misnomer. They do not deflect noise at all. If anything, it is like an echo chamber, making a lot of noise coming up.

Thank you. (applause)

ASSEMBLYMAN DeCROCE: We could save ourselves some time, frankly, if we did not do that. We do not have that much time left.

Thank you, Mr. Gerrity.

Richard Brownell.

R I C H A R D M. B R O W N E L L: Hi. I am Rick Brownell. I live in Livingston. I have been here for most of the afternoon's session and all of this evening's session, and practically all the points I wanted to make have been made already by other speakers better than I could have done. Therefore, I am not going to add to that. I just want to mention one thing that I am surprised has not come up.



I think you should definitely have in your list of things to consider-- You are going to be considering alternatives; you are going to be doing economic analyses; you are going to be looking at solutions, some of which could be implemented very quickly, others of which would take a long time. There is one solution that would take time, I will admit, that has not been considered; that is, controlling the noise at the source. Work for more quiet trucks.

I realize that this cannot be done by one community or one state by itself; it has to be done at the national level. But New Jersey should take the lead in campaigning with Congress, and whomever else, to set goals for noise limits on trucks, the same way fuel efficiency goals have been set over the years, and tighten them gradually to get us down to the point where trucks are, let's say, no louder than cars. There is no technical reason why that can't be done. It is a matter of economics.

If you could get the trucks, in effect, and the diesel buses, and some other things which I could mention, as quiet as the cars, we might not have to build noise walls.

ASSEMBLYMAN DeCROCE: We had someone here today from the New Jersey Asphalt Pavement Association who talked about just that, frankly, as well as the different types of--

MR. BROWNELL: Okay. I came in just at the end of his--

ASSEMBLYMAN DeCROCE: You did?

MR. BROWNELL: Yes.

ASSEMBLYMAN DeCROCE: He also mentioned the different types of layment that they can lay down now, which are a lot more quiet than what we have been doing in the past.

MR. BROWNELL: This is good, but what I am really thinking about is the noise from the engines of the trucks.

ASSEMBLYMAN DeCROCE: I understand.

MR. BROWNELL: The inadequate mufflers.

ASSEMBLYMAN DeCROCE: Well, he indicated to look into those areas; he really did, yes.

MR. BROWNELL: Good. Okay. Put that on your list. Thank you.

ASSEMBLYMAN DeCROCE: Linda Wargo, 11 Townsend Drive.

L I N D A W A R G O: You have our petition from the neighborhood around Townsend Drive, if you care to read it. I do not see our Mayor here, but I would like to make sure that he also gets a copy of that, please.

Everything has been said that I had in mind by these women and these gentlemen. A lot was said, and I do not want to repeat it. I do have some questions, though.

ASSEMBLYMAN DeCROCE: This is a hearing, Ms. Wargo.

MR. WARGO: They are just statements, then, okay?

Depressing the road on a new project does not work. Our house is on the side where it is depressed. It even makes it worse. Down the road a half a block, it is flat land, and the noise does travel. We have also been bothered by the noises. As soon as the trucks find these roads, it becomes louder and louder.

We are also concerned about the hazardous spills that might occur, accidents caused by leaking onto someone's property and hurting someone.

You can't even walk down our street without turning around, thinking that a car is behind you. It is the noise from Route 24. At certain points, I walk my dog on the street. I have not turned around, thinking it was the highway noise, but there were cars behind me afraid to beep their horn and scare me. I am also afraid that someone is going to be hurt by a car on our street.

If at all possible, maybe a suggestion should be made, if it has not been made, that maybe whoever uses these highways-- They should be paying tolls to help to support the wall.

Also, I understand there were test results from our towns versus DOT testing of the sound noise. I would like to know what the testing results were. I understand that our towns' testing has become higher than DOT's. Will that be made public?

ASSEMBLYMAN DeCROCE: I suggest you talk to your town engineer. I think he has those figures.

MR. WARGO: Okay. Thank you.

ASSEMBLYMAN DeCROCE: Thank you.

W. Jay Wanczyk, from the Township of Pequannock. Hi, Jay.

W. J A Y W A N C Z Y K: Thank you, and good evening.

Mr. Chairman and members of the Committee, my name is W. Jay Wanczyk. I am Assistant Township Manager for the Township of Pequannock. I am submitting this testimony concerning highway noise barriers on behalf of the governing body.

The Township of Pequannock has had a long history of concern on the I-287 project. Initially, the Township instituted suit in an effort to de-designate the highway construction funds towards other regional transportation projects or, failing in that effort, reroute the highway along existing rights-of-way. As the project of the highway moved forward and an alignment was formalized, the Township refocused its efforts towards mitigation of what was believed to be two of the highways' most objectionable impacts -- stormwater quality and management, and noise.

The Township's concerns on stormwater quality and management were addressed by DOT, and most of our concerns regarding noise were addressed, as well.

Initially, DOT conducted a noise study which recommended noise barriers along the highway's eastern boundary through the Township, as well as the Borough of Kinnelon, which overlooks the entire Pompton Valley in the Township. The one

exception was that there would be no noise barrier constructed over the Mountain Avenue overpass, as it was communicated that the technology did not exist at that time to construct such a barrier. This was in the early to mid-1970s. The report also stated that the highway alignment was slightly shifted to the west in some areas to permit the construction of the sound barriers.

In a letter dated July 13, 1987, an Assistant Commissioner of DOT indicated that the report was finalized with respect to the Department's noise mitigation and proposal. In addition, he stated that the mitigation proposal was approved by the Federal Highway Administration and was incorporated into the design plans. At that point, the Township was satisfied that its noise mitigation concerns were largely addressed, with the exception, again, of the lack of a barrier on the Mountain Avenue overpass, which the township was led to believe was not possible.

We were somewhat dismayed, later, to learn during the active construction process that an additional 410 feet plus of the noise barrier was eliminated from a location immediately north of the Mountain Avenue Bridge, thus leaving a total of almost one-sixth of a mile of the highway without a noise barrier. Following this realization, the Township and at least one adjacent resident began a series of correspondence, over the past six years, with NJDOT, the result being that the issue is still unresolved, with the highway now in operation for almost one year.

At first, NJDOT responded that a gabion wall -- that is those wire-filled baskets with stone in them -- could not be constructed north of Mountain Avenue because of the right-of-way constraints involving what is termed an "historic property," and that a noise barrier at this location was determined not to be cost-effective.

First, the Township was not insisting that a gabion sound barrier be constructed at that immediate location. In fact, it was understood that a concrete wall type of barrier and not a gabion was planned for that approximately 400-foot spot which would fit in the available space -- remember that the DOT noise study reflected that the highway alignment was shifted to allow construction of the noise barriers.

Second, there does not seem to be a particular reason which would make this barrier, immediately above homes on Mountain Avenue, not cost-effective, while adjacent barriers immediately above fields and woodlands, cost-effective.

A later correspondence from NJDOT expanded its concerns for the barn and seemed to reach the somewhat curious conclusion that the barn and adjacent house were best protected by not having the sound barrier constructed within the right-of-way, well behind and above the barn and house, as I stated. In this same letter, NJDOT did not address the resultant noise impacts of the Township neighborhoods downstream and downhill from that missing sound barrier.

Well before the alignment and design of the highway, a portion of the Township, immediately below where the highway was ultimately aligned, was zoned for construction of over 600 multifamily housing units, both town houses and apartments. This was one of the Township's two remaining large vacant tracts which was later incorporated into a "builder's remedy" development to meet a significant portion of the municipality's Mount Laurel housing obligation. Construction of this development, now known as "The Glens," roughly coincided with construction of I-287.

The subsequent opening of I-287 with unmitigated noise reflected through the almost one-sixth of a mile opening has led to a grassroots effort in our community to communicate the need for construction of the missing noise barrier segment. A recent petition, a copy of which is appended and has been

presented to the Committee, indicates that residents of Mountain Avenue, The Glens, and Keech Briar Lane are greatly affected by the lack of a barrier and are seeking relief.

In endorsing this request, the Township Council recognizes that there is a significant cost for the construction of these barriers from the Federal and State Highway Trust Funds. But it is also recognized that there is an obligation and responsibility for builders and users of that highway to mitigate the impact to the residents who are daily paying the cost of the disruption of the quality of their lives by -- a quote from the petition -- "the overwhelming magnitude of noise" from I-287. It is also recognized that some highway travelers do not like the monotonous appearance of noise barriers while traveling on the highway.

We ask that both you and they consider the quality of life of those who now are faced with the impact of the highway operating above their homes and condos 24 hours a day, not just during the commute.

I thank you, and the Committee, for hearing the Township's concerns.

ASSEMBLYMAN DeCROCE: Thank you, Jay.

Elizabeth West, East Hanover.

**E L I Z A B E T H   W E S T:** I oppose the sound barriers. The one reason that was not stressed today is that if you have greenery or trees, it does bring oxygen into our air. So it helps us all to have clear air.

The other thing that was said by some of the Harding residents does not hold true. The fact is, you can have an accident on any street. Are we to build barriers or walls around every street? There was an accident out here in Florham Park where a child was killed. So I guess you have to take accidents into consideration no matter where you live or where you are.

The other thing about some of the barriers that are on Route 80, it is like you are in a prison. You are enclosed. Most commuters travel an hour and a half to work and an hour and a half home. That's three hours a day. Other people have said that they are living with this noise 24 hours a day. No one stays in their house 24 hours a day, or lives outside in their backyard 24 hours a day. So that is not a valid argument.

The other thing is, I moved to East Hanover about 30 years ago from Irvington and lived on Troy Road. If you know Troy Road at all, it goes from Ridgedale Avenue through to Troy Hills Road. Part of that road is wildlife preserve; part of it is the Hanover Sewage Authority. Now, that was not there when I moved to East Hanover. The airplane noise from Morristown Airport was not there. I am not asking anyone to build me a sky wall to stop some of the airplane noise.

We have to realize that we are going to get more and more traffic out in this area. It is not going to stop. I live on a corner piece of property. There were maybe 20 cars a day that went between Ridgedale and Troy Hills Road when I moved there. It is about 75 feet. My house faces the road, not Troy Road, but Grow Road. We put in noise barriers -- trees, pine trees, that we staggered so we would not have the noise or the pollution from the cars. That does help. Not one of the residents in Harding Township has said that they have done anything to relieve some of that noise for themselves, or anything to stop seeing the trucks, and some of them have lived there from the '50s and the '70s.

Thank you.

ASSEMBLYMAN DeCROCE: Thank you.

Mr. Woody Ball, of Riverdale. Your Mayor was here today, Mr. Ball.

W O O D Y   B A L L: Sir?

ASSEMBLYMAN DeCROCE: Your Mayor was here today.

MR. BALL: Yes, well, I just received a letter, which is the reason I am here, and the reason I look like I look. I was up a tree all day, I didn't eat any supper, but I am here because this is very important. I just got this thing today, at 7:00 tonight, the notice of this meeting. He received his notice, our illustrious Mayor, on September 15.

Anyhow, I live one block from Exit 53 at Route 287 -- one block away. The Hamburg Turnpike Bridge starts at that point and goes across the Hamburg Turnpike. Before Route 287 was opened, there was very little noise. You could hear it when the trucks downshifted. When that bridge was completed and the road was opened up, it was like a switch. It's 24 hours a day, 7 days a week, and it does not decrease much at all, even at night, because they are going to New England and they are coming back from New England. The noise is horrendous.

That bridge should have a sound barrier on it -- on the bridge. I am sure that if any resident of Riverdale had had any time to get here, other than myself -- and I gave up my supper and a bath to get here -- they would have been here. This was bulk mail, and I just got it tonight.

Thank you. (applause)

ASSEMBLYMAN DeCROCE: If you don't mind-- (referring to applause) You know, you only take up your own time. I am only going to be here until about 9:00. We have about a half hour. Maybe I'll stay a little longer, because we have quite a few people yet.

I would now like to call on Janet Norton -- or, June Norton -- I'm sorry -- of Morristown.

**J U N E   E .   N O R T O N:** Hi. My name is June Norton, and I live at 14 Revere Road, which is just the other side of the Madison exit off of Route 287. I have been in Morristown for about three weeks now. After my first night here -- and I did not sleep at all -- I think about 4:00 in the morning, I said to my husband, "I can't live here." He said, "No, it will get better."



I have now been here for three weeks, and I still don't think I ever sleep exactly. I rest, you know, but the trucks come by. On Saturday nights, there is some diminishment in the noise. We have a very solidly built house, with trees that have been put--

I would like to find out if there is a way to have deciduous trees put in, even though-- Anything -- we would do anything to have sound abatement. I know that entire street-- There is a group that has gotten together. They have gone to many meetings. They were told that they couldn't do anything, couldn't build on the existing walls. But I have gone on many of the highways in the last three weeks, and that is not my experience. I have seen them built behind, I have seen them built on top, and I have seen them in front of cemeteries. So I know that if something like this is possible, it would be something that would benefit the residents of that area greatly.

I am just here to add my support. I notice the people who are not supporting it, are not the people who live off of the freeways.

ASSEMBLYMAN DeCROCE: Thank you.

Mr. Ed McNair, Morris Township.

**E D W A R D P. M c N A I R:** I live in the Cromwell Hill section of Morris Township. It is right up Columbia Road. It is the part of Morris Township that is to the east of Route 24.

When Route 24 was built, we knew -- we got the sound walls in -- it was a gimme. There was no question about whether or not we were going to get them. I am neither for nor against the walls that exist now. I will say, though, that they are quite a disappointment.

The gentleman from Florham Park said that he does not notice any difference. He does not think it is any quieter. I have to agree with him. He happens to be scientifically accurate. There are a couple of reasons for that: One is called diffraction. That means that the sound comes over the

wall and gets bent downward. It is something that has been known for over a century. It was discovered by a fellow by the name of Rayleigh, who was the father of modern acoustics. He explained that sound on a level-- Let me read it for you. Just a minute.

"In the normal state of the atmosphere, a ray which starts horizontally turns gradually upward, and at a sufficient distance passes over the head of an observer whose station is at the same level as the source. If both the observer and the source be, on the surface, in no direct ray, the sound is heard, if at all, by means of diffraction."

He is sitting underneath the wall. Basically, what Mr. Rayleigh, or Lord Rayleigh said 110 years ago, is that on an open surface, in the top picture (witness shows picture to Committee) the rays bend up on a normal day. I am going to have this later on for you. When it goes over a wall, as shown in the bottom picture (witness again shows picture), they get diffracted downward.

Now, 10 years ago, when the Department of Transportation came to us and talked about building Route 24, as many of you probably heard, there was some strong opposition to it. At the meeting they had, they talked about the sound barriers. Ten years ago, at that time, I asked them, "Why not tilt the sound barriers up?" because when you build one sound barrier on one side of the road and you build another one on the other side of the road, you make this one taller, you make that one taller. The more you do that, the more you are going to get a reflection over the wall that is going to come down and is going to be heard on the other side of the wall.

Now, my wife and I are in the habit of walking around Cromwell Hills nightly. In the course of walking on the two roads closest to the sound barriers, which are Colonial Drive and Powder Horn, the noise sounds like there is no barrier

there. In fact, as one lady describes it, sometimes she thinks the traffic is coming down her street. That is because of this illusion.

Now, there is one big thing to be said in favor of the walls; that is, the houses in our neighborhood are selling like hotcakes. Everybody wants to move in. They see the walls there and they say, "Yes, the highway is there, but it does not hurt the property value." So that is the good news.

The bad news is-- You asked, Assemblyman DeCroce, if the walls work. They do not work very well. When I asked about tilting the walls back, the highway department -- the Transportation guy said, "Oh, no, we can't do that. It's too much work. It would cost too much. If we tilt them back, we have to have specially shaped panels when you go around curves." That was about 10 years ago, and it always sort of bothered me.

About six months ago, I sort of came up with an idea that would solve the problem. I have been working on that idea. I brought a scale model of it with me. If anyone is interested in seeing it afterward, I will set it up in the Conference Room, if they leave the place open, the Conference Room being right next-door here. I think it makes a substantial improvement, and at no extra cost. As long as we are going to build the walls, if we are, we might as well get the most for our money. These will come in at exactly the same cost as the old ones.

Thank you.

ASSEMBLYMAN DeCROCE: Thank you, Mr. McNair.

Mr. Joseph Fricovsky, from Florham Park. Good evening.

J O S E P H   F R I C O V S K Y:      Good evening.

I would like to make a brief comment on the noise barriers along the Beechcrest section of Florham Park. I recently read in The Eagle that recordings are taken, and that

we are not high enough to require more sound barriers to be built. It also said that only five or six families are impacted by the noise in this area.

I want you to know that this is not true. I live more than halfway up the block on Elmwood Road, and the noise is loud enough to cause me to close my windows at night, something that my wife and I hate to do. However, it must be done, because I can't get to sleep with the noise from the traffic.

Please don't take this lightly, because we actually feel that our quality of life is affected by us having to close our windows to keep out the noise, along with the fresh air and the cooling breezes, something we always look forward to during the cool nights.

I have taken walks down by the lower part of Beechcrest at different times of the day and night, and I cannot see how these families can stand the level of the noise in this area. About one year before the highway opened, DOT held a meeting at the Madison Middle School. They displayed a view of the neighborhood, with the projected sound level to expect after the highway was opened. I must tell you, most of the people in the room that night were pleased with the slight hum that you were able to hear. But DOT was way off on their projections. They should record the sound in our neighborhood and show the people at the next meeting the real sound to expect when a highway opens near your property.

Thank you.

ASSEMBLYMAN DeCROCE: Thank you, Mr. Fricovsky.

Joseph Zielinski, Beechwood Road.

J O S E P H   Z I E L I N S K I: Good evening.

ASSEMBLYMAN DeCROCE: Good evening.

MR. ZIELINSKI: I am a resident on Beechwood Road in Florham Park. I can compare to what the previous speaker was just saying. I live with the highway behind my house, right on the curve. I think it is a depressed area. You have heard all of these things this evening.

My concern is what a Harding Township resident said earlier. What will the highway noise be in the future? I came in a little late. I don't think they have walls just yet in Harding Township. I have walls, and we did noise studies, both the town and DOT. What they showed was that there was only an 8-decibel increase, compared to what you heard earlier, the 10 point increase.

Traffic is not going to decrease. This is a very populated area -- the New York/New Jersey area. What will DOT, or whatever agency, do in the future? You have heard people talk about Route 287 with the trucks 24 hours. Well, Route 24 feeds off of Route 287. It is a direct route right to Newark Airport. We are seeing an increase in traffic. I was not there way before the highway was opened, but I did have one year where the highway was not open. You can tell the difference.

I think in the Beechcrest area we have a specific situation. The wall stopped just before a bridge over a little creek that is behind the forest -- where the forest area starts. A lot of the noise from empty trucks is because of that bridge. The walls do not continue to include that part. I would recommend that you, if you can, do something about that bridge.

Thank you.

ASSEMBLYMAN DeCROCE: Thank you very much.

Ms. Elizabeth Mercadante, and a Maryellen Mercadante. Related? (no response) Why don't you both come up? They are both from Beechwood Road.

**E L I Z A B E T H M E R C A D A N T E:** There are a lot of neighbors here. I don't think they would like to speak anyway; I think they are a little nervous. Not that we are going to speak for all of them, but at least some.

How are we going to work this? Let me go first, okay?

My name is Elizabeth Mercadante. I live at 59 Beechwood Road.

ASSEMBLYMAN DeCROCE: Speak into the mike, please.

MS. E. MERCADANTE: I am one of those five houses that are on this map which Route 24 backs up into. I am here to urge this Committee for construction of the continuation of sound barriers on the east side of Route 24 in Florham Park, which is sections 10F and 11J.

I purchased my home eight years ago before the highway was constructed. Our neighborhood was such a peaceful and pleasant area to live in. Now, we must live 24 hours a day-- I am going to say 24 hours a day because I am home with children. I am home most of the time, so it is 24 hours a day with trucks hitting the bridge. Now, let me explain to you about this bridge. Joe just spoke about it.

There is a stream behind my home, which is Spring Brook Gardens. DOT constructed a bridge over the stream. Right up to the stream on my side, it stopped, but on the other side it continued. So what that has created is like a vacuum effect going right up into our whole development. Most of the noise in our neighborhood -- which I think is about 150 homes -- all comes right off of that bridge.

We live with this 24 hours a day, with the trucks hitting the bridge, jolting us out of our bed. We are also living with our windows shut. My five-year-old son is afraid to play in our backyard because of the truck noise. When our children ride their bikes in the street, they hear the traffic on the highway, not the car that is right behind them.

Mr. Tom Myslinski, from DOT, visited my home before the highway opened and stated that instead of the rustling of the trees, I would hear a low hum. I do hear the low hum, but he forgot to mention the explosions as the empty trucks hit this bridge. The Township of Florham Park requested Keller & Kilpatrick, an engineering firm, to conduct a sound level measurement in our neighborhood. They measured the sound levels before the highway opened and one year after.

I will just read one sentence here, or two: "The result of the studies, in our opinion, is that the increase in sound levels due to the highway are of a level significant enough to warrant the installation of sound barriers. This opinion is reached after review of the Department of Transportation, Federal Highway Administration, procedures for abatement of highway traffic noise." This is an engineering firm that stated that we should have it.

ASSEMBLYMAN DeCROCE: I am familiar with it.

MS. MERCADANTE: Okay. DOT then did their own sound level, and we were 2 decibels short. We were projected at 56 decibels; we are already at 62. What are the next years' levels going to be?

When the State constructs these highways, do they do so at the expense of our neighborhoods? As for the motorists using these highways, please bear in mind that they are exposed to them for a very short period every day. We live with this noise constantly. We are not able to socialize outside unless we want to scream at each other. This is a newly constructed highway. Many of the residents bought their homes with beautiful forests behind them. I wonder how the people opposed to the walls would feel if they put a highway in their backyard.

ASSEMBLYMAN DeCROCE: Thank you.

MARY ELLEN MERCADANTE: My name is Maryellen Mercadante. I live at 65 Beechwood Road, in the same area, a few doors away.

Everything I really wanted to say about the sound barriers has been said this evening. I just want to address one issue. I have woods in my yard. In the winter, when the leaves fall, I can see headlights coming on. But I still have pine trees and buffers. I can't expect anybody to plant that same amount of trees. It does not do anything to address the noise that these trucks cause. The sound barriers-- If they were just continued, or if there was some way to put a cap on

that bridge, that would allow us to be able to hear -- to at least hear each other and use our yards. But, believe me, putting up trees-- My sister-in-law has a row of pine trees straight down. It does absolutely nothing; it doesn't. Okay?

I have a letter from a neighbor. Since we are late, though, I can just hand it to you?

ASSEMBLYMAN DeCROCE: Sure. Thank you very much.

Charles Sechrest, from Morristown.

**C H A R L E S   H.   S E C H R E S T:** My name is Charles Sechrest. I am from Missouri, but that is not the point. I arrived in New Jersey and started to work here in 1963. I rented a property for about a year, a little more than that, and investigated where I could buy a house.

The one I thought about was in Butterworth Farms, here in Morris Plains -- Morris Township, pardon me. At that time, I was informed that Route 24 -- which at that time did not have a number -- was going in. I chose not to build on it. I'm glad I didn't.

Regardless of the effectiveness of sound walls, or forests, or the shape of the wall, or anything else, I think a good rule would be to establish the fact that the only people entitled to sound barriers would be people who had houses built and standing when that roadway was approved and went in. Someone who moved in there 15 or 20 years later and wants a sound barrier because they moved onto that property-- I think all the way down through Harding Township-- How many thousands of houses could be there in another 10 years' time, 20 years' time? It is incredible. Those people know that highway is there. If they want to develop the land, they can do it. The government should not have to put out a penny for sound barriers. That applies to all of the land through Florham Park, Madison, and Chatham, getting down to Summit.

That is the way I see it. Take it or leave it.

ASSEMBLYMAN DeCROCE: Mr. Arthur DeMonte, Madison.



**A R T H U R   D e M O N T E:** Good evening.

**ASSEMBLYMAN DeCROCE:** How are you?

**MR. DeMONTE:** My name is Art DeMonte. I live in the Knollwood section of Madison. I just have a brief point to make, and I guess the last speaker mentioned Madison.

I moved into my residence at Longview Avenue prior to the opening of Route 24. We are adjacent to Route 24. If you start at Route 78 and work your way up to 287, you will see that Route 24, the new 24, is pretty well equipped with sound barriers, except on the east side of Madison, and I think it goes into Florham Park, with some of the folks back here. I can tell you, I used to live in New York City, and I always had a good night's sleep in New York City. I have yet to have a good night's sleep in Madison. That is amazing to me.

That was the first point. The other one is: You know, from the road-- I do travel from my office to Newark Airport frequently, so I get on at the intersection of Columbia Road and Route 24. I actually drive past my house on the way to the Airport. You can't see the house, because there are trees. There was one prior speaker here who said, "Gee, I don't know why they put sound barriers up. There are just trees there, maybe just some rabbits." As the speaker from DOT said, "It is a psychological barrier. Just because you can't see us from the road does not mean that we can't hear you from our house. Okay?

The last thing I just wanted to mention is: On the eastbound side, we have a swimming pool -- Madison Community Swimming Pool -- and we also have a soccer field and an ice-skating rink, with picnic tables. It is a very nice park area. I am afraid that that park area will not be in use as frequently as it has been. I think it really does affect the quality of life for the kids who use the soccer field and for the grown-ups who also use the swimming pool during the summer.

That's it for me.

ASSEMBLYMAN DeCROCE: Thank you, Mr. DeMonte.

Stanley Hodukavich. I apologize to you, but they do it to me all the time. (referring to pronunciation of witness' name) So don't feel badly.

**S T A N L E Y   H O D U K A V I C H:** I am Stan Hodukavich, from Madison, New Jersey. I live just down the road near where Greenwood Avenue crosses the new Route 24.

Everything I had to say about the quality of life and the impact of the highway has been said by others.

Well, before moving into Madison, we called DOT to find out what the story was with the contemplated Route 24. We were told that the highway would be depressed. We checked out a number of places adjacent to depressed highways, and found that the sound level was acceptable. So we decided to move into town.

Since the highway was put in, due to some possible irregularities, possibly the most significant being a bridge-- There appears to be a tremendous amount of resonance or some kind of echoing phenomenon created by bridges, which perhaps DOT should look into, perhaps considering concrete bridges which may resonate less than steel bridges.

I canvassed the neighborhood and discovered that most of the people in the immediate vicinity of the highway found the noise attenuation to be unacceptable. We submitted a petition, a little more than a year ago, to DOT of 65 residents who found that the noise levels were objectionable. Since then, there has been a follow-up study on the noise levels in our area, as well as in a number of other locations. I took some time to review the study.

I found a few things upon first glance. One was the truck count from the study. I focused in on the 142 Rosedale Avenue location, which was right near my house. The truck count per hour -- I will just read a few of the sample hours -- were: medium trucks, 5, 2, 2, 0, and 3; heavy trucks, 0, 0, 0, 0, and 0. This is for the eastbound lanes.

I went to the bridge at Greenwood and Route 24 this morning and counted trucks myself between the eastbound and westbound traffic. There was an average of 340 trucks per hour on the combined eastbound and westbound. That is between heavy and light trucks. I define a heavy truck as anything with a tractor-trailer configuration, and a light truck as anything in the, I guess, six- to ten-wheel variety, straight trucks, ten-ton capacity.

So the study appeared to be flawed at first glance, just based on this truck count. Then I looked at the study a little bit closer. I noticed that the decibel levels were quite low, in the 50-decibel to 60-decibel range for measurements taken at 142 Rosedale Avenue. I decided to look into that a little further.

I took a noise meter, which I bought from a Radio Shack, down to 142 Rosedale and measured the levels. I found that using an "A" weighting scale, my measurements agreed substantially with DOT's. Then there is another scale on the meter which is called the "C" weighting scale. Using the "C" weighing scale, the decibel readings were in excess of 70 decibels, consistently, you know, throughout the measurement period. The explanation of the "A" weighting scale versus the "C" weighting scale is that an "A" weighting scale tunes the decibel measurement to frequencies above 500 hertz, extending to 10,000 hertz. The "C" weighting scale includes the sound frequencies between 32 and 500 decibels. This is the low frequency that rattles windows and shakes people up, and generally creates discomfort.

I feel that the DOT study and follow-up findings of noise levels in our area are flawed. I believe they should measure the entire spectrum of sound that we are subjected to, and analyze the cost benefit and the impact to the community, based on the entire package of sound that we are subjected to.

In addition to that, the study used several devices to discount sound from other sources, such as airplanes and additional cars passing the test site during the test. I feel that is a device used to unfairly represent the noise situation. If the construction of the highway and the additional truck traffic have put us over the top in terms of tolerable noise, I think the last party should be responsible for mitigating the noise in the community.

Thank you.

ASSEMBLYMAN DeCROCE: Thank you very much.

MR. HODUKAVICH: One more comment: The difference between the use of the "A" scale and the "C" scale in the noise measuring equipment ignores 50 percent of the noise. There was an increment of over 10 decibels for measuring the "C" weighted noise, as opposed to the "A." So half of the noise was ignored in this study.

ASSEMBLYMAN DeCROCE: Thank you.

The last person I am going to call is Alec Edge, from Harding Township, Baxter Farm Road. Alec Edge? (no response)

Ladies and gentlemen, thank you so much for coming to our hearing.

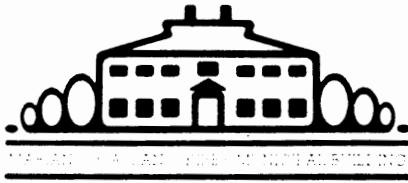
I just want to say that with some of the results I have received tonight with regard to the decibel ratings that I have gotten from both Harding and Florham Park, I will be talking to DOT in connection with those. Hopefully, I will get some answers that maybe some of you have not been able to get, and I will be able to share them with you, or with your local officials. I will attempt to do that in the very near future.

Thank you.

**(HEARING CONCLUDED)**

## APPENDIX





TOWNSHIP OF HARDING  
Morris County, New Jersey  
Blue Mill Road, Box 666  
New Vernon, New Jersey 07976  
201-267-5000

Statement by Harding Township to the Hearing Before Assemblyman DeCroe  
Related to the Route 287 Noise Barrier Matter

by

Louis J. Lanzerotti, Ph.D.  
Member, Harding Township Committee  
Harding Township, NJ

28 September 1994

Harding Township is a community of approximately 3600 residents that is traversed by about a three mile length of Interstate Route 287. Although Harding is not as densely populated as are a number of other municipalities along the Route 287 corridor, there are still numerous residences and town homes that are severely affected by the impact of traffic noise from this highway. Indeed, the noise has become so severe that individuals in many dwellings must now keep their windows and doors closed the year round in order to attempt to obtain some relief from the deafening noise. The net result is that the ever increasing noise pollution from the traffic load on this highway is causing the quality of life of many of our citizens to be severely affected.

In order to obtain a more quantitative assessment of the noise levels that now exist since the opening of the highway to the New York Thruway, the Township has retained the services of two engineering firms (a) to monitor the noise levels at a number of specific locations within the community and (b) to carry out an independent traffic count of the vehicular types using the road. The later was implemented when the results of citizens' more informal traffic counts had indicated to the Township Committee that the traffic mix that was projected in State planning documents for the year 2010 was grossly different than the present day experience.

Accompanying this written testimony are copies of the reported results of the noise monitoring. The measurements were made at six different locations in the town over several different days. Both average noise levels were recorded as well as individual high level noise "events". The traffic count activity has just been completed within the last week, and the data are being compiled now. We will transmit these results to your office as soon as they are available.

The noise data show several most interesting facts. First, the levels measured at the residential locations close to the highway evidence almost no diurnal variation. That is, the hourly L10 noise levels are nearly constant, independent of time of day, and exceed, for all hours and by up to 10 dB(A), the NJDOT criterion of a peak hour level of 64 dB(A) for noise barrier installation. Thus, there is no "peak hour" of traffic noise pollution on Route 287 as is assumed in models of traffic flow and noise abatement considerations. This means that there are essentially no hours of respite from the highway noise pollution for these citizens.

Second, the data on noise "events" is quite revealing. While there are no NJDOT criteria for the assessment of the noise pollution impact on citizens of distinct noise events, the heavy, and increased, truck traffic on Route 287 after it was opened to the Thruway suggested that such data should be acquired. At two locations on separate days data were therefore gathered that assessed the number of noise events that exceeded 70 dB(A) and 75 dB(A) for at least several second intervals. Such events can be produced by truck noise sources that include exhaust stack emissions, braking, down shifting, backfiring, and faulty mufflers. The data show that such high noise level events can occur as frequently as once each several minutes during some hours of the day. Indeed, during the hour of 6am to 7am on one day, an excessively loud (by more than 10 dB(A)) noise event occurred on average every two minutes! The number of such events begins to build at about 3am, and reaches a peak occurrence frequency at about 6am and 7am. Unfortunately, many of these hours of the largest number of events occur at night and in the early morning when citizens are still trying to sleep!

While the recent completion of the "northern extension" of Route 287 to the Thruway has been a truckers' salvation, it has turned the Interstate into a beltway around New York/Metropolitan traffic congestion. The citizens of Harding Township are suffering the noise pollution nightmare that has been created.

As noted above, the NJDOT criterion for consideration of the installation of noise barriers is a peak hour averaged noise level of 64 dB(A). If residences are located within the "envelope" of this noise level, noise abatement is required. However, whether abatement barriers will be constructed depends upon a second criterion. According to a "ballpark" type rule that seems to lack documentation or an engineering foundation, the construction of barriers must cost less than \$40,000 per residence "protected" or they will not be built. In the case of Harding Township, with the exception of planned barrier construction along a townhouse area, this criterion severely discriminates against numerous residences that have noise levels that far exceed those that would otherwise warrant noise abatement procedures.

That this economic criterion appears to be so inflexible is not understandable and is intolerable. The threshold level for discerning differences in noise levels is about 3 dB. Hence, the rigid application of the two policy rules of the NJDOT would specify that residences with an averaged noise level of 65 dB or 66 dB (essentially indistinguishable from 64 dB) but where the costs of the barriers would be, for example, \$38,000 per residence, would warrant barrier construction. But in Harding, where numerous residences have averaged noise levels far above 64 dB, but where the costs exceed the criterion, such abatement is not presently allowed. Such reasoning has a great



element of illogic in it. Further, the NJDoT criteria do not consider the effects on the quality of life of the exceedingly large amplitude noise pollution "events" that have been documented by our commissioned studies to occur during what would normally be considered the hours of sleep.

Based on the foregoing facts and the accompanying data sets, the Township Committee of the Township of Harding believes that it is time for the NJDoT to reconsider its criteria for the construction of noise abatement barriers beyond the inflexible limits that appear to exist today. We stand willing to discuss such modifications with the Department.

The Township Committee reaffirms its support for its resolution, passed 8 August 1994, requesting the installation of noise barriers along Route 287 "through the Township such that all residential dwellings will have mitigation from this noise pollution source". A copy of the resolution is attached hereto.

Thank you for the opportunity of appearing before you today on behalf of the Harding Township Committee and the citizens of the Township.



TOWNSHIP OF HARDING  
Morris County, New Jersey

Blue Mill Road, Box 666  
New Vernon, New Jersey 07976  
201 267 8000

August 10, 1994

Frank J. Wilson, Commissioner  
New Jersey Department of Transportation  
CN 600  
Trenton, New Jersey, 08625-0600

Dear Commissioner:

At its regularly scheduled meeting on August 8, 1994, the Township Committee of the Township of Harding in Morris County passed unanimously a resolution calling for the installation of noise abatement barriers along the Route I-287 corridor through the Township. A copy of this resolution is enclosed.

As you will note, the resolution concludes that the quality of life of a considerable number of Harding residents is being severely affected by the high levels of noise pollution from this interstate highway, not just on an average noise level basis but also because of the very large number of extremely high level (greater than 75dB) noise events (principally from heavy trucks) that occur at all hours, but are most prevalent in the very early morning hours when residents are attempting to sleep. The I-287 noise pollution situation with Harding Township has become much worse since this route was opened to the New York Thruway.

The noise data cited in the resolution are from measurements made by a recognized consultant firm that the Township retained for the purpose. In addition, we have carried out a preliminary survey of the percentage of heavy truck traffic on this interstate route. We find, on the basis of traffic counts made at various times of the day and night over more than a one week interval, that the present percentage of heavy trucks is a factor of approximately 5 to 15 (depending upon the hour) larger than the projected year 2010 "build condition traffic data" (2.6%) for this road. At no time was the percent of heavy truck traffic count found to be as low as the year 2010 projection. Within the next month, we will have additional noise pollution data obtained by our consultant firm as well as a more official traffic count.

On the basis of this Resolution and the preliminary traffic counts cited above, the Township Committee anticipates that your Department will expeditiously begin the installation of noise abatement barriers along the full length of I-287 within the

4X

Frank J. Wilson, Commissioner

-2-

August 10, 1994

Township of Harding in order to mitigate the noise pollution to which our citizens are subject.

I look forward to hearing promptly from you.

Sincerely,

Robert F. Lewis, Jr.,  
Mayor

RFL:mr

CC: F. Howard Zahn, Director  
Senator Gordon MacInnes  
Assemblyman Rodney P. Frelinghuysen  
Assemblyman Arthur R. Albohn  
Assemblyman Alex DeCroce  
Andras Fekete, Manager

5X

HARDING TOWNSHIP RESOLUTION

WHEREAS, the traffic on Route I-287 through Harding Township has increased such that the night-time A-weighted hourly L10 noise levels are now approaching those measured during peak hours (order 74dB at certain locations) with the result that there is little remaining daily variation in noise levels; and

WHEREAS, the number of noise events that exceed 75dB levels for several seconds intervals at the 67dB A noise contour levels has increased to as many as one every two minutes or less on average during some early morning hours (04-07 LT) when residents are generally trying to sleep; and

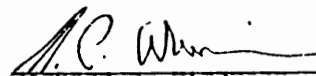
WHEREAS, it is to be expected that the noise pollution levels can only increase if the Route I-287 corridor through Harding Township is widened by 50% as presently planned; and

WHEREAS, residents of Harding Township whose quality of life and personal well-being are significantly impacted by the present, and projected, increase in noise pollution from Route I-287 have approached the Township Committee to intercede with the State of New Jersey Department of Transportation regarding the mitigation of the noise pollution from this highway;

NOW, THEREFORE, BE IT RESOLVED that the Township Committee of the Township of Harding in the County of Morris and State of New Jersey, given consent to and urges, the State of New Jersey Department of Transportation to construct noise abatement barriers along the complete length of both sides of Route I-287 through the Township such that all residential dwellings will have mitigation from this noise pollution source.

DATED: August 8, 1994

ATTEST:

  
Richard C. Wiedmann,  
Township Clerk

TOWNSHIP OF HARDING

BY   
Robert E. Lewis, Jr.,  
Chairman

**QUESTIONS AND ANSWERS**

### HOW SUCCESSFUL HAVE SOUND BARRIERS BEEN?

Where the Federal Highway Administration's (FHWA)/New Jersey Department of Transportation's (NJDOT) criteria for sound barriers has been met and they have been built, these walls have, for the most part, been successful in substantially reducing traffic noise levels. An example of the success of noise barriers has been demonstrated by a recent Noise Monitoring Study conducted for Route 24 Freeway in Florham Park, Madison and Chatham. This study found that in areas where noise barriers were constructed there were no traffic noise impacts resulting from the Route 24 Freeway. However, success is a matter of perception. In the Department of Transportation's public meeting process staff is careful to explain that with a new or expanded roadway the character of the noise in an area will change and the barrier will not eliminate roadway noise, only reduce it. Residential areas distant from the highway, 500' or more, will not receive any benefit as they are too far from the wall to fall within the acoustical shadow. However, some residents do not attend our meetings, develop unreal expectations about what a barrier can and cannot do, and then become disappointed and say "they don't work". Also, many highway users are unhappy with the program as they perceive only negative implications of noise barriers. These divided opinions on the merits of barriers along with the high relative cost of noise barriers have driven the department to undertake a re-analysis of our policy which is currently underway.

WHAT HAS BEEN THE COST OF THESE SOUND BARRIERS?

Approximately 65 miles of noise barriers have been constructed by the NJDOT since 1980 at a total cost of \$138 million dollars, or an average cost of about \$2 million per mile. Present day costs to buy and install noise barriers approach \$3 million per mile.

These barriers fall into two categories. Type I projects where the mitigation is part of a new roadway or capacity improvement and is a requirement to obtaining federal funding for the roadway project, and Type II projects which are voluntary barrier retrofit projects along roadways which were constructed prior to environmental regulations. The Federal Highway Administration, whose regulations require us to construct Type I barriers, pay, depending on the type of project, from 70% to 90% of the cost of the barriers. Type II barriers have no dedicated source of federal revenue and 2 of the 3 projects done to date have been 100% state funded. Of the 65 miles of barriers constructed to date in New Jersey, 59 miles have been Type I projects at a cost of \$113 million and only 6 miles have been Type II projects at a cost of \$25 million. For all types of barriers, these dollars expended are a resource lost out of our capital program, dollars which will not improve or maintain our ability to move people effectively.

There is also the added disruption to traffic flow caused by the construction of Type II walls to consider. These are not associated with a roadway improvement yet staging their construction can cause potential traffic delays.

Finally, there is a constant cost to maintain these walls such as mowing, litter removal (along both sides), graffiti removal and maintaining structural integrity.

HOW MANY PEOPLE HAVE SEEN NOISE LEVELS AFFECTED BY WALLS?

The noise barriers constructed in the State reduced noise levels below the Federal impact threshold for 4,800 households, 195 school classrooms, seven churches, and other community facilities. These same noise walls also provided a modest benefit to an additional 3,000 households where noise barriers have reduced noise by a noticeable amount.

TO WHAT EXTENT HAVE THEY HELPED?

Noise barriers cannot eliminate highway noise. What they can do is reduce the noise level in half for the first row of homes behind the barrier with a reduction in benefit as you move farther behind the wall. Their primary area of benefit is usually limited to the first 500 feet behind the wall.

HOW DOES THAT COMPARE WITH PROJECTIONS?

Noise analysis is performed using a computer model developed by the Federal Highway Administration and in use throughout the country. In the many years this model has been in use, numerous research studies have been performed by the federal government, state DOT's and independent researchers to analyze the accuracy and performance of the model. The results of these investigations is the finding that when



using the model you obtain very good correlation between the numbers we predict for noise levels and mitigation benefits and what occurs in the real world. However, there are conditions that occur in the highway system, such as bumps in the roadway, that can cause higher noise levels than we predict at a specific location.

HOW MUCH IS SPENT PER CAPITA TO DEAL WITH THE NOISE PROBLEM?

The FHWA requires NJDOT to construct barriers for federally funded projects where those barriers meet the engineering, noise reduction and cost benefit requirements agreed upon by FHWA and DOT. The cost ceiling for considering noise barriers is an expenditure of up to \$40,000/residence mitigated by the barrier. If the cost exceeds this number, a barrier would not be constructed as it is not cost effective.

GRAFFITI: WAS IT ANTICIPATED? CAN IT BE PREVENTED OR REMOVED?

Graffiti is a widespread social problem and certainly the Department cannot prevent attempts at graffiti and will always face a maintenance cost to deal with it. What NJDOT can do is to deter graffiti through the use of barrier designs and textures which inhibit the graffiti artist from producing a legible image or message. This option, on the other hand, can actually make it more difficult to clean. The other route is the use of smooth surfaces and special coatings which although they ease the removal of graffiti, make an excellent blank canvas for the graffiti artist to start with. Also, in the long term, where possible, dense mature vegetation at the base of the barrier can be an effective deterrent to graffiti.

WHY HAS THE COST OF INSTALLING BARRIERS SPIRALED UPWARD?

Actually, the unit cost of noise barriers, materials and labor, has not increased dramatically due to increased competition in the marketplace between manufacturers and increasing familiarity with the process by contractors. What has changed is that NJDOT is building taller barriers and spending more on items such as landscaping and barrier aesthetics. Also, as part of a large roadway improvement construction contract, costs for offices, maintenance of traffic, mobilization of equipment, etc. are supported by the road building tasks, whereas in a retrofit Type II Project these costs fall completely with the barriers and result in higher project cost.

The DOT needs to consider possibly sharing the construction or maintenance expense involving retrofit walls with developers and local communities that stand to benefit from their use. Developers should have responsibility to mitigate noise when they build near a highway.

WHAT HAS NJDOT LEARNED ABOUT MATERIALS IN TERMS OF: EFFECTIVENESS, GRAFFITI RESISTANCE AND APPEARANCE?

EFFECTIVENESS

In terms of effectiveness there are many materials which will perform satisfactorily in providing sufficient transmission loss (noise transmitted through the barrier) to function as noise barrier. To be effective at the business of providing noise barriers, NJDOT is looking at standardization of design to cut barrier costs. As for recycled

materials, the future looks promising for recycled materials in noise barriers and NJDOT staff is thoroughly investigating these possibilities. The important point is the system by which these materials are used must not, overtime, develop cracks, holes, etc. which will allow noise to leak through. A noise barrier with holes or cracks is as useful as a bucket with a hole in the bottom!

#### GRAFFITI RESISTANCE

NJDOT cannot stop the constant problem of graffiti artists doing their work. What we can do is make it difficult for them to accomplish their goal of a legible or comprehensible image. Deep textures, extensive plantings can make noise barriers unattractive as a graffiti canvas.

#### APPEARANCE

Americans define their country by driving through it and in many instances our noise barriers have denied them that view, and they don't appreciate that. What NJDOT has learned is that barriers must change as they traverse the landscape and in some way replace the lost view with a new one. Architectural treatments to create a local identify such as the creation of "gateways" where barriers are located at extreme exit ramps, and other similar techniques can, for an extra cost, go far to remove the stigma of "ugly" often associated with noise barriers.

On the homeowners side, the barriers are often also perceived as a security measure to separate their property from the roadway. But this is not a justification for their construction.

The Commissioner, in order to effectively balance all these concerns on the noise barrier issue that have been presented today, has initiated a full re-evaluation of NJDOT's noise barrier policy and seeks public comment which will help him formulate a new policy.

NJDOT is confident that working together, we can put forward a plan that will not only help address real noise needs around our state, but do it in a way that is objective, cost-effective and complements our state's varied landscape.

#### SUMMARY

NJDOT needs to find ways to solve traffic noise problems by looking for new standards which will result in the appropriate use of noise barriers that are less expensive, less intrusive, more attractive and more vandal proof.

# Parsippany-Troy Hills



OFFICE OF THE MAYOR

1001 Parsippany Boulevard

Parsippany, New Jersey 07054 • 201 263-4297

Dear Assemblyman DeCroce:

Highway noise is a serious concern for the residents of Parsippany-Troy Hills and many residents of the state of New Jersey. My office constantly receives inquiries asking when are sound walls going to be installed on Route 80 or Route 287. Phone calls have even been received requesting sound walls along Route 10.

For residents who are affected by highway noise, sound walls are a blessing. They provide the ability to have normal conversations in one's yard. Your home no longer rattles or shakes. A good night's sleep becomes possible again. However, to others, these walls represent barriers or tunnels. They are miniature versions of the Great Wall. These walls detract from the natural landscape, cost too much money, and it is believed they don't work as well as trees. Everyone believes this because you can still hear the highway noise.

The Township first heard the controversy several years ago, when sound walls were proposed for a section of Rt.287 in Parsippany. The N.J.D.O.T. required a resolution from the Township council approving the locations. The Council first received a petition signed by the residents in the area in favor of the wall. Then, a second petition was submitted opposing the walls. Some residents had signed *both* petitions! Finally, the Township commissioned the Engineering Department to conduct a door-to-door, non-bias survey of the residents affected. The survey produced a resolution approving a portion of the walls and recycling other sections.

The question posed is "*Who's right?*" Credence has to be given to both sides. Do the walls reduce the noise level? Yes they do. The New Jersey D.O.T. has conducted studies to prove this. Their video, which is shown at the public information meetings clearly shows this. Are the walls ugly and out of character for their surroundings? Yes they are. Are they expensive? They are that also. So what can be done? Is this information confusing and sometimes counterproductive? Yes. Maybe the D.O.T. video should be more widely used and more widely distributed.

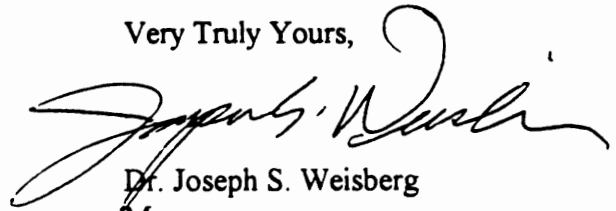
New Jersey State Library

First, the N.J. D.O.T and the State of New Jersey must investigate other types of sound walls. Lighter materials can reduce overall construction costs. Materials that are more aesthetically pleasing or blend in better with the natural surroundings will minimize opposition to the walls. Secondly, increase the landscaping. A wall covered with ivy with trees planted in front of it works wonders. No one complains about the sound walls along Route 287 in Hanover Township. Plant more ivy...don't skimp. Also, plant a mixture of evergreens, trees and shrubs. This helps to reduce the "tunnel" effect. People would be more accepting if the walls were covered by rapidly growing ivy, etc., not slow moving trees.

In addition, a better program of general education is needed for the public at large. There is a great deal of confusion about the scientific studies that reveal the efficiency of sound walls. The DOT would be well-advised to produce easy to understand figures showing the advantages of sound wall materials versus the use of trees or other "natural" materials that the public believe effective. These should be presented in publications and other easily distributed means of communications.

Finally, if there is a state-wide plan or design for sound walls, this should be discussed and widely disseminated. At present, the public's view of all this construction is one of hit-or-miss, ad-hoc work. While this probably is not the case, it is the only conclusion that can be drawn from the available evidence.

Very Truly Yours,



Dr. Joseph S. Weisberg  
Mayor

lar

ASSEMBLY TRANSPORTATION COMMITTEE

September 28, 1994

Chairman Alex DeCroce and members of the committee:

I am Barbara L. Hall, Mayor of the Borough of Chatham, and I represent the many residents of the Borough who have contacted me with their ongoing discomfort resultant from the Route 24 noise levels.

Route 24 west of Millburn has been open for nearly two years. It is a seemingly heavily traveled highway twenty-four hours a day by both passenger vehicles and trucks. It is also a speedway.

During the spring of 1993, complaints were either voiced or written to me, then Senator Borwn, Assemblyman DeCroce, and then Assemblyman Martin. There also was a petition with sixty-six names of residents requesting sound barriers in addition to the two barriers in place.

A meeting was held on June 17, 1993, with Christine Johnson, Assistant Commissioner of NJDOT and others of the NJDOT staff. This meeting included representatives from Florham Park, Madison, and Chatham in addition to our legislators. We were advised that there would be a noise study made during the spring of 1994.

Complaints about excessive noise continue to come into my office indicating that the traffic noise from the highway is prevalent not only during the summer but also is sufficient to awaken residents in the early morning hours even though windows are closed.

I visited the areas impacted by traffic noise during 1993 and again on January 3, 1994 with Assemblyman DeCroce. To reinforce my recollection of the traffic noise I again walked along these streets this morning.

Noise level as per page 10 of the Noise Measurement Study Route 24 Freeway Up-Date Chatham, Florham Park, Madison, and Hanover, Morris County - NJDOT, June 1994, shows equipment sound levels in dB and conversational speech is listed in the 60-70 dB range. One of the residents took this measurement in my office as we discussed the federal and state guidelines for justifying sound barriers; although we were speaking quietly our conversation registered 67dB. Conversation does not usually continue on a twenty-four basis, but trucks do - 24 hours a day, 365 days a year. Truck noise is the most offensive and it is compounded by the fact that in Chatham these trucks rolls on over the Passaic River Bridge hitting the bridge with unbearable banging waking residents during the night.

The study did not provide any measurements on North Hillside Avenue nor on University Avenue sections where there have been numerous complaints. The residences here are probably doubly impacted due to the curve in the highway in addition to the bridge. Then Assistant Commissioner of NJDOT, Christine Johnson indicated that nothing could be done to address the levels of the bridge. I urge you to revisit this situation in particular.

I have enclosed maps of the area and a letter from a resident in addition to a response letter from Christine Johnson.

Thank you for the time you have given to our residents and to me.



20 University Ave.  
Chatham, NJ 07928  
November 22, 1993

Mayor Barbara Hall  
Chatham Borough  
Municipal Building  
54 Fairmount Ave  
Chatham, NJ 07928

Dear Mayor Hall:

We are contacting you to attest to the route 24 noise problem voiced by many of our neighbors on University Avenue.

The noise level has increased with the increase in traffic usage of route 24 these past months. We are confident that the opening of route 287 will only exacerbate the noise level.

There is a steady roar of the cars and trucks throughout the day which can be heard from our house. Trucks can be heard from inside the house even with all the windows closed. The noise level is intensified in the pre-dawn hours.

If you were in our house at 4 o'clock in the morning you would be amazed of the number of trucks that can be heard traveling on route 24. It seems there is one per minute. This is the period of time when the noise level is most disturbing.

Route 24 elevates to above ground level as it passes the Minisink Club area and passes over JFK parkway. This elevation gives the noise an unobstructed path to our homes. Sound Barriers are definitely needed in this area of route 24.

Please continue to impress upon the State officials of our need for sound barriers.

Thank you for your time.

Sincerely,

*Denis Stolfi*  
Denis Stolfi

*Dorothy Stolfi*  
Dorothy Stolfi

cc: Henry Underhill, Boro Administrator

19X



IN REPLY PLEASE REFER TO

**State of New Jersey**  
**DEPARTMENT OF TRANSPORTATION**

THOMAS M. DOWNS  
COMMISSIONER

1035 PARKWAY AVENUE  
CN 600  
TRENTON, NEW JERSEY 08625

September 17, 1993

Honorable Barbara Hall  
Borough of Chatham  
Municipal Building  
54 Fairmont Avenue  
Chatham, New Jersey 07928

Dear Mayor Hall:

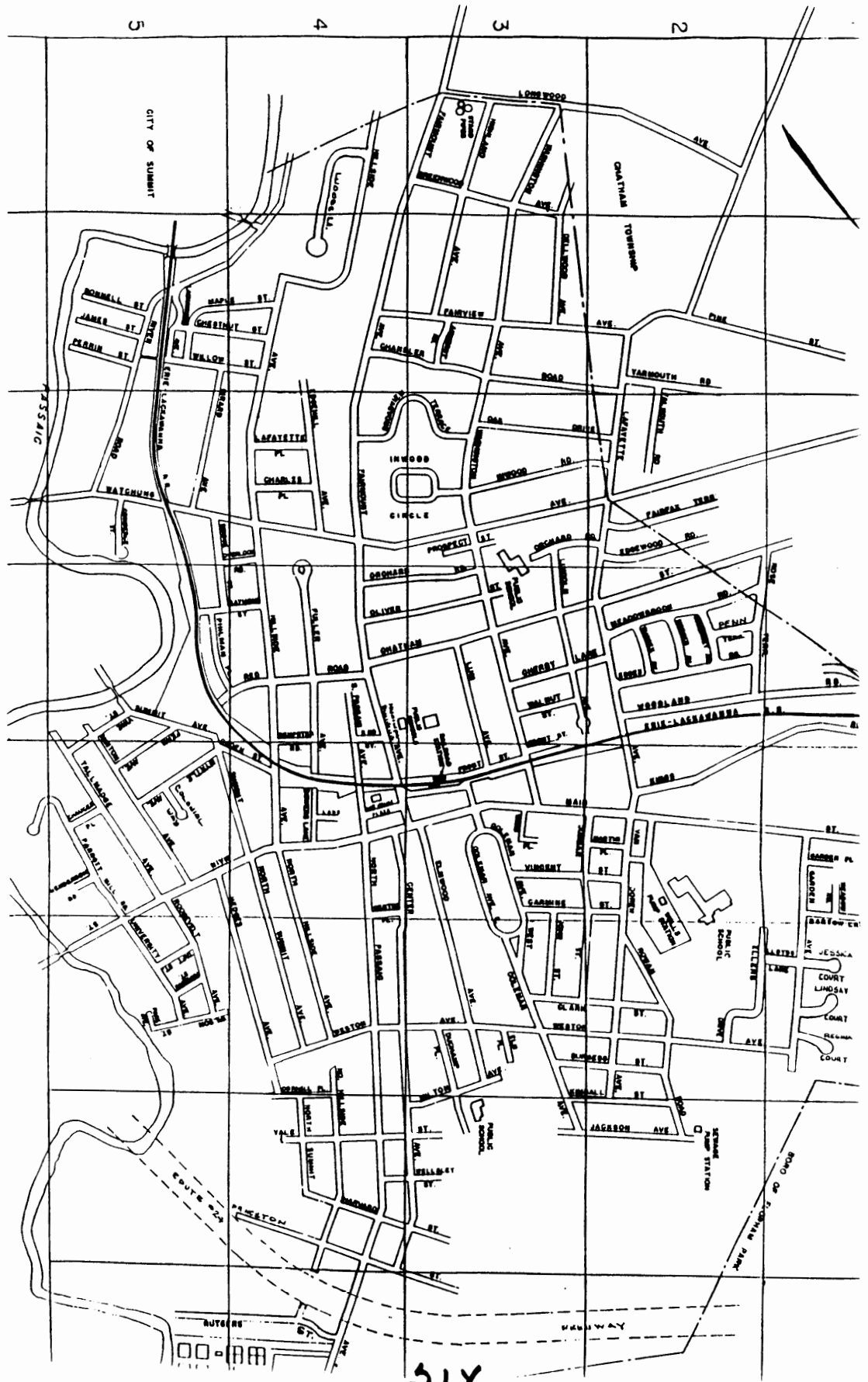
I am following up on your correspondence of June 25, 1993. I responded indicating that we would investigate Mr. Reed's noise complaint. I had a team of two from Region 2 investigate the location on Route 24 where there is a transition from a concrete bridge deck to an asphalt road. The team noted the noise level and, because it did not seem particularly high, went to Mr. Reed's home and again listened to the noise level. To quote their report:

In the distance I could hear the faint rushing sound of traffic on the highway with the occasional "bump" of truck traffic . . . There seemed to be more noise being generated by traffic on Main Street in Chatham (which crosses University Avenue) than by Route 24 traffic. However, it is possible that the noise may be louder on certain evenings when the wind is blowing in the right direction, but we just could not tell.

Nevertheless, the transition area has been put on Region 2's list of maintenance activities that will be considered in the Spring of this year.

Sincerely,

Christine M. Johnson  
Assistant Commissioner  
Policy and Planning





## Township of East Brunswick

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October 3, 1994

Ms. Amy Melick, Committee Aide  
Assembly Transportation Committee  
Office of Legislative Services  
CN 068  
Trenton, New Jersey 08625-0068

Dear Ms. Melick:

Enclosed is a copy of the East Brunswick ordinance regarding restrictions on development near noise generators.

Reference was made to the ordinance by Mr. Edward Cohen at the September 28, 1994 hearing of the Assembly Transportation Committee in Florham Park.

Sincerely,

Adrienne Eisner, Manager  
Budget/Special Projects

AE:gl  
Encl.

**& 228-229.2. Restrictions on developments near noise generators. [Added 12-22-86 by Ord. No. 86-817]**

- A. No new single family residential structure (excluding substantial repair or alteration) and no new multiple-family residence, school, hospital, nursing home or similar structure, or substantial modification of such existing structure requiring Planning Board or Zoning Board of Adjustment action shall be approved for construction if the exterior sound level anywhere on the site of the proposed structure is projected to be in excess of 65 dBA Leq or to be in excess of 45 dBA Leq within the structure, following the estimated completion date of the structure.
- B. At the discretion of the Planning Board or Zoning Board of Adjustment, applicants proposing residential development within 300 feet of a noise generator, such as the New Jersey Turnpike, Route 18 or an industrial zone, may be required to submit a report certifying that the exterior and future interior sound levels will meet the criteria specified in subsection A above. Such report shall contain:
  - 1. The results of measurements of the exterior sound levels and simultaneous interior sound levels of any existing structure on the property in question.
  - 2. The existing Leq sound levels including identification of the major sources of sound, for a representative sample of locations, measured in accordance with guidelines set forth in this ordinance.

3. Any projected or proposed increases in sound levels which may affect the projected future Leq at any portion of the site resulting from site development changes, such as the removal of trees, earthwork, etc.
4. Where applicable, plans for sound attenuation measures on the site and/or of the structure proposed to be built and the amount of sound attenuation anticipated as a result of these measures.

All tests shall be performed for a representative duration of twenty-four (24) consecutive hours. All proposed lots and structures thereon which are part of the development application shall be subject to the aforementioned tests. This report shall be prepared by a licensed professional engineer or by an independent testing agency, either of which shall submit a resume indicating extensive experience in the accoustical field to the appropriate agency for approval.

In addition, the Township may conduct such inspections and measurements as are necessary to ensure the accuracy of any report submitted pursuant to subsection B and to ascertain compliance with this section. These may include on-site inspections by the Township or by a certified independent testing agency during the course of construction and/or prior to issuance of a certificate of occupancy.

- C. If sound level reports, indicate sound levels exceeding those set forth in Subsection A, development approval shall be withheld.
1. Necessary standard sound attenuation devices, such as berms, barriers, landscape plantings, design and placement structures, insulation, etc. may be utilized to achieve the required sound levels. Such methods of sound attenuations must be specifically approved by the reviewing body. In reviewing such methods, the reviewing body shall consider environment, aesthetics, quality of life, engineering standards, maintenance problems and maintenance costs.
  2. Cluster developments shall be encouraged in situations where a noise generating source is within 300 feet. Only 75 percent of the land area where Leq is in excess of 65 dBA may be counted towards density in a cluster subdivision.
  3. No residential lot lines shall encroach upon any area where Leq is 65 dBA or greater.
  4. Except as provided in Subsection D, no land shall be designated or approved for construction or use as a public or private exterior recreational area, including, but not limited to, playgrounds, outdoor theaters and amphitheaters, picnic grounds, tennis courts, and swimming pools, if the exterior sound level from external sources anywhere on the site of the proposed recreational area is projected to be in excess of 65dBA Leq now, or as the result of proposed construction or development on the site. Appropriate means of sound attenuation, such as berms, barriers, or buildings, at the perimeter of, or elsewhere on the site, may be utilized to achieve the required sound level. Such methods of sound attenuations must be specifically approved by the reviewing body. In reviewing such methods, the reviewing body shall consider environment, aesthetics, quality of life, engineering standards, maintenance problems and maintenance costs.

- D. Upon completion of the necessary remedial work, a revised sound level report as indicated in Subsection A shall be submitted. Once the sound levels have been reduced to the acceptable standards set forth in Subsection A, development approval may be issued.

This section shall not prohibit the designation or approval of any green belt or open space in any area in which the sound level exceeds 65 dBA Leq regardless of whether such green belt or open space is open to public use, provided that no recreational improvement or facility is constructed thereon.

- E. As a condition of approval, the Planning Board or Zoning Board of Adjustment shall require the submission of future certified reports prior to the issuance of certificates of occupancy to verify that the condition in Section 5b has been met. These reports shall contain, at a minimum, twenty-four (24) hours of sound testing in the bedroom to determine that the Leq is below the levels established in Section 5b, except that the permissible interior night levels shall be reduced an additional ten (10) decibels.
- F. Upon issuance of a certificate of occupancy and the transfer of the property by deed, the property owner of record shall become responsible for the maintenance of all sound attenuation devices on that property.

The developer shall attach to all contracts of sale a map which designates all areas within the development where noise levels exceed 65 dBA Leq. The lot subject to sale shall be clearly delineated. Such map shall be approved by the Township Engineer.

- G. For the purposes of this section, all measurements and designations of sound levels shall be expressed as a percentile of Leq sound pressure levels unless the Township specifically approves an alternate.

All measurements to determine if sound is within the levels set forth herein shall be carried out utilizing a sound level meter which meets the specifications established by ANSI.

Brook Drive South  
Morristown, NJ 07960

Assemblyman Alex DeCroce  
101 Gibraltar Drive  
Suite 2D  
Morris Plains, NJ 07950

September 27, 1994

RE: Route 287 Expansion & Soundbarriers

Dear Assemblyman DeCroce:

My home is one of the "Brookwood" homes in Harding Township that the noise study determined to be "severely impacted." As I'm sure you realize, this severe impact at today's traffic levels far exceeds the noise standards.

What I ask you to consider are several facts:

- 1) The noise level has worsened tremendously since 287 has opened to N.Y. The truck traffic (the worst noise-makers) continues around the clock, now. It is this truck traffic "passing through" at the encouragement of Port Authority and regional transportation planners, that leaves so little in the way of local economic impact, but rather benefits the region.
- 2) If the noise levels are illegal now, can't you imagine how much worse it'll be when that additional traffic volumes are combined with a lesser amount of natural foilage to "absorb" the sound? The sound barrier technology exists now, and it won't be getting any cheaper to install in the future. Surely, it makes economic sense to do it now, as part of the widening, vs. an additional and more costly disruption at some time in the future.
- 3) Sen. Lautenberg made a great show of announcing the \$40 million of federal funding which is being added to the funds available for this project. Let's not lose sight of where the money is coming from! These are my tax dollars (among others, obviously) being used. Aren't we being singled out as a source

26X



of funds (only) when the project could so obviously mitigate for us the worsening level? We're not asking that you stop the project, at this point, but we are asking that you use our resources to contain the problem. Don't treat taxpayers any worse than any other endangered species, please.

If you have any questions about the reality of this pollution, please feel free to drop around for a listen.

Sincerely yours,

J. Russell Phillips

**Lewis S. Goodfriend & Associates**  
CONSULTING ENGINEERS IN ACOUSTICS

301 E. Hanover Avenue • P.O. Box 2453  
Morristown, New Jersey 07962-2453  
201/540-8811 • FAX 201 540 0391

5 July 1994

Mr. Richard Wiedmann  
Township Administrator  
Township of Harding  
Post Office Box 666  
New Vernon, New Jersey 07976

Re: Harding Township I-287 Noise Measurements  
LSG&A File 94042

Dear Mr. Wiedmann:

As you requested, Lewis S. Goodfriend & Associates, has completed one set of 24-hour sound pressure level measurements at two residences in Harding Township. The measurements were performed to document the current sound levels at the residences due to I-287 traffic noise, and to assess the need for noise barriers in order to reduce the noise levels at the houses. The Stark Lane measurements were also compared to the August 1989 sound levels which were measured by the New Jersey Department of Transportation (NJDOT) at the same location. The results of both our survey and the DOT survey yield comparable sound levels at the Stark Lane location (see attached NJDOT table). This data indicates that the sound levels at Stark Lane have not changed significantly since the opening of the northern part of I-287.

The Federal Highway Administration (FHWA) uses the hourly  $L_{10}$  and  $L_{eq}$  statistical noise levels to evaluate whether an area has been impacted by traffic noise. The hourly  $L_{10}$  noise level is the level exceeded 10 percent of the time in that hour, while the  $L_{eq}$  statistical noise level is the level of a continuous noise having the same total energy as the time varying noise in that hour. The noise abatement criteria set by the FHWA states that the worst hour  $L_{eq}$  or  $L_{10}$  sound level must be above 67 dB(A) or 70 dB(A), respectively, before noise barriers are considered for the mitigation of traffic noise.

28X

The twenty-four measurements were performed at the following locations:

Location 1 - The Gregor residence on Stark Lane. The microphone was located 7 feet from the face of the house, and approximately 80 feet from I-287.

Location 2 - The Stolpe residence on Brook Drive. The microphone was located 10 feet from the face of the house, and approximately 175 feet from I-287.

Meteorological conditions occurring during the measurements were the following: wind speed less than 5 mph, temperatures in excess of 65° Fahrenheit, and clear skies.

Figure 1 shows the hourly  $L_{eq}$  sound levels measured at the two locations, while the hourly  $L_{10}$  sound levels can be seen in Figure 2 for the same locations. Table 1 lists the hourly  $L_{eq}$  and  $L_{10}$  statistical noise levels for both measurement locations. The measurements indicate that the worst hour  $L_{eq}$  and  $L_{10}$  sound levels are several decibels above the FHWA noise criteria at Location 1, and several decibels below the criteria at Location 2.

In addition, the projected sound levels for I-287 as provided by DOT, look quite reasonable with respect to our measurements. At the Brook Drive residence, we measured a maximum hourly  $L_{eq}$  of 65 dB(A). DOT's design year projection at that location is 67 dB(A). As a reference, a doubling in traffic volume would yield a 3 db(A) increase.

5 July 1994

Additional noise monitoring at these locations, or monitoring at additional locations, can be carried out with your approval.

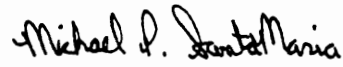
I trust this information is sufficient for your present needs. If you have any questions, please feel free to call.

Very truly yours,

LEWIS S. GOODFRIEND & ASSOCIATES



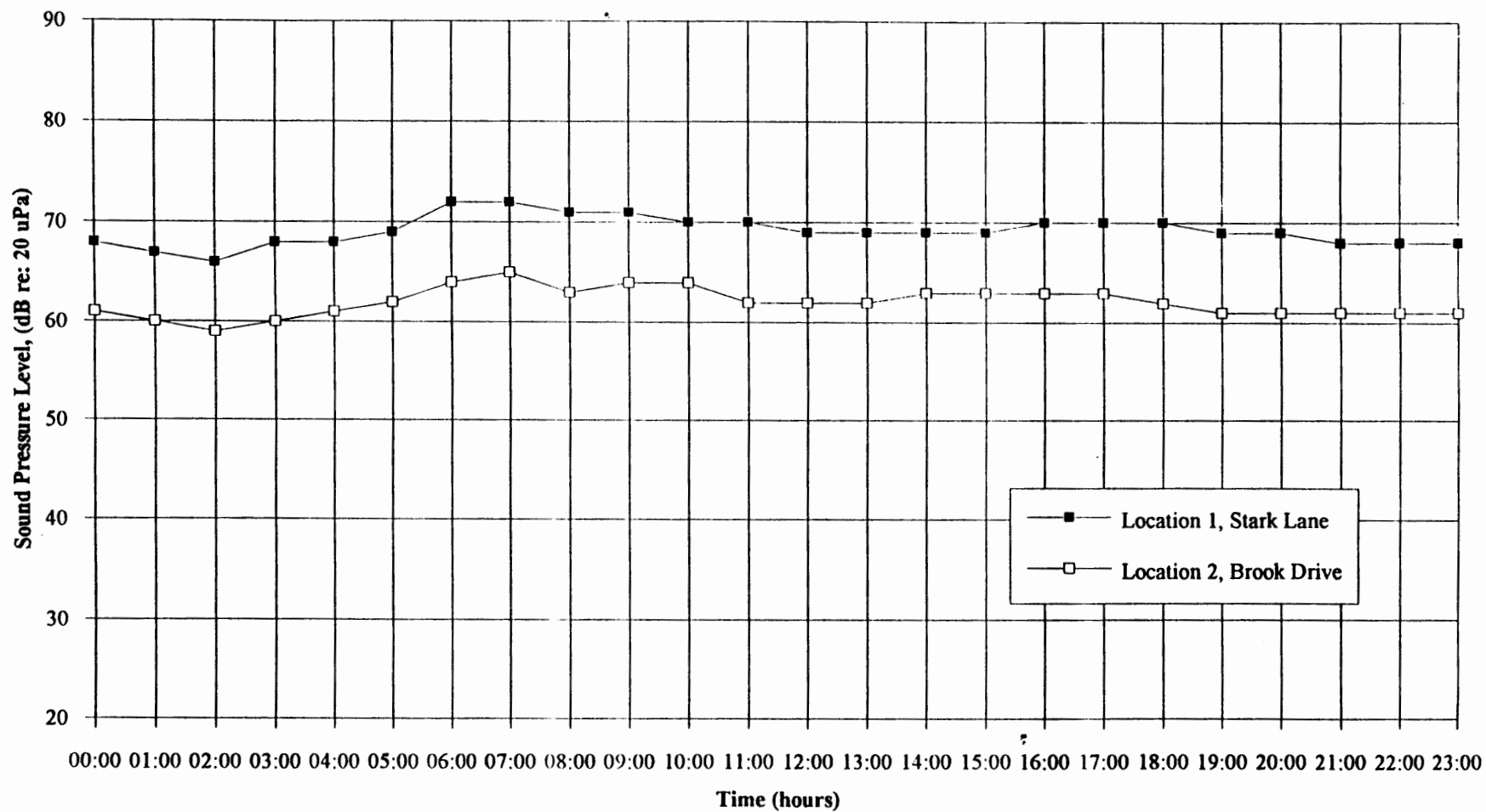
Martin Alexander  
Senior Engineer



Michael P. SantaMaria  
Staff Engineer

MA/MPS:ck  
Enclosure

Figure 1 - A-weighted Hourly Leq Statistical Sound Levels Measured Along I-287, Harding Township, New Jersey, 22-to-23 June 1994.



31X

Figure 2 - A-weighted Hourly L10 Statistical Sound Levels Measured Along I-287, Harding Township, New Jersey, 22-to-23 June 1994.

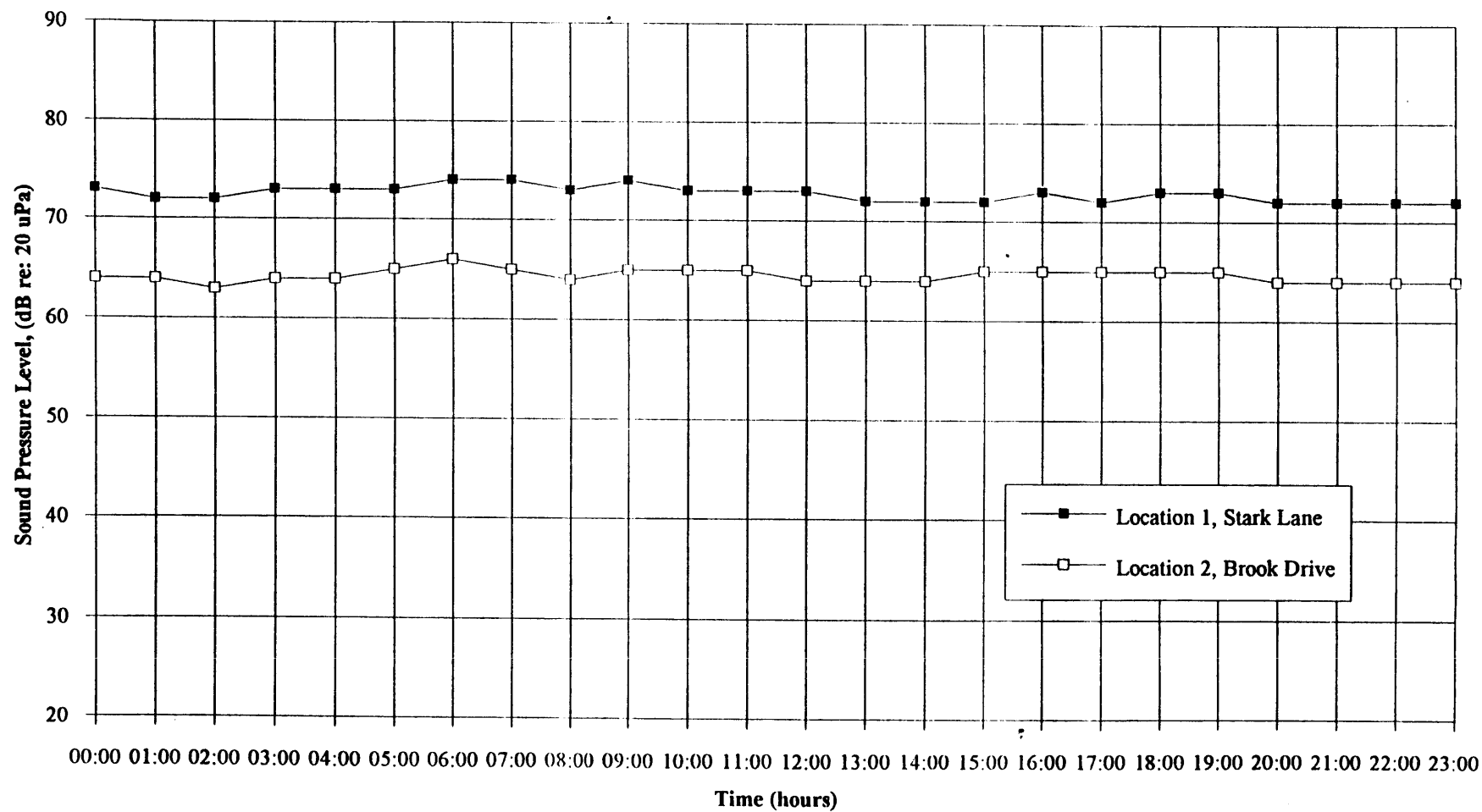


Table 1 - A-weighted Hourly L10 and Leq Statistical Sound Levels Measured  
Along I-287, Harding Township, New Jersey, 22-to-23 June 1994.

Hour	Location #1		Location #2	
	Leq(h)	L10(h)	Leq(h)	L10(h)
00:00	68	73	61	64
01:00	67	72	60	64
02:00	66	72	59	63
03:00	68	73	60	64
04:00	68	73	61	64
05:00	69	73	62	65
06:00	72	74	64	66
07:00	72	74	65	65
08:00	71	73	63	64
09:00	71	74	64	65
10:00	70	73	64	65
11:00	70	73	62	65
12:00	69	73	62	64
13:00	69	72	62	64
14:00	69	72	63	64
15:00	69	72	63	65
16:00	70	73	63	65
17:00	70	72	63	65
18:00	70	73	62	65
19:00	69	73	61	65
20:00	69	72	61	64
21:00	68	72	61	64
22:00	68	72	61	64
23:00	68	72	61	64

# Lewis S. Goodfriend & Associates

consulting engineers in acoustics

## MEMORANDUM

---

To: Richard Weidmann  
From: Martin Alexander, LSG&A *MA*  
Date: 22 July 1994  
Subject: High Noise Level Events from I-287  
LSG&A File 94042

As requested during our last meeting, I have attached the results of our analysis of high noise level events at the Gregor residence from our measurements of 22 and 23 June 1994. The Bruel & Kjaer Type 4427 Community Noise Analyzer has the capability to "capture" events which exceed a preset threshold of level and duration, and provide the maximum and average sound levels for each of the events. Note that there is no way for the analyzer to distinguish between high noise level events caused by traffic on the highway and other sources, such as a car pulling into the homeowners driveway, or someone speaking near the microphone in an elevated voice. However, given the even distribution as a function of time, we are confident that the events are principally traffic generated.

Figure 1 shows a distribution of the number of events whose level exceed 75 dB(A) as a function of time of day. Note the exceptionally large number of events between 4:00 AM and 7:00 AM, and between 9:00 AM and 10:00 AM. Note that people are generally more sensitive to noise during the early morning hours (4:00 AM to 7:00 AM) since sleep is of primary importance during this period. Table 1 is a breakdown for some key hours of the actual maximum and average levels for the measured events. Note that the maximum sound levels ranged from 76 dB(A) to 85 dB(A).



22 July 1994

These levels are in agreement with what would be expected from a truck pass-by at highway speed at a distance of 80 to 100 feet.

I hope that this information is helpful. Please call if there are any questions.

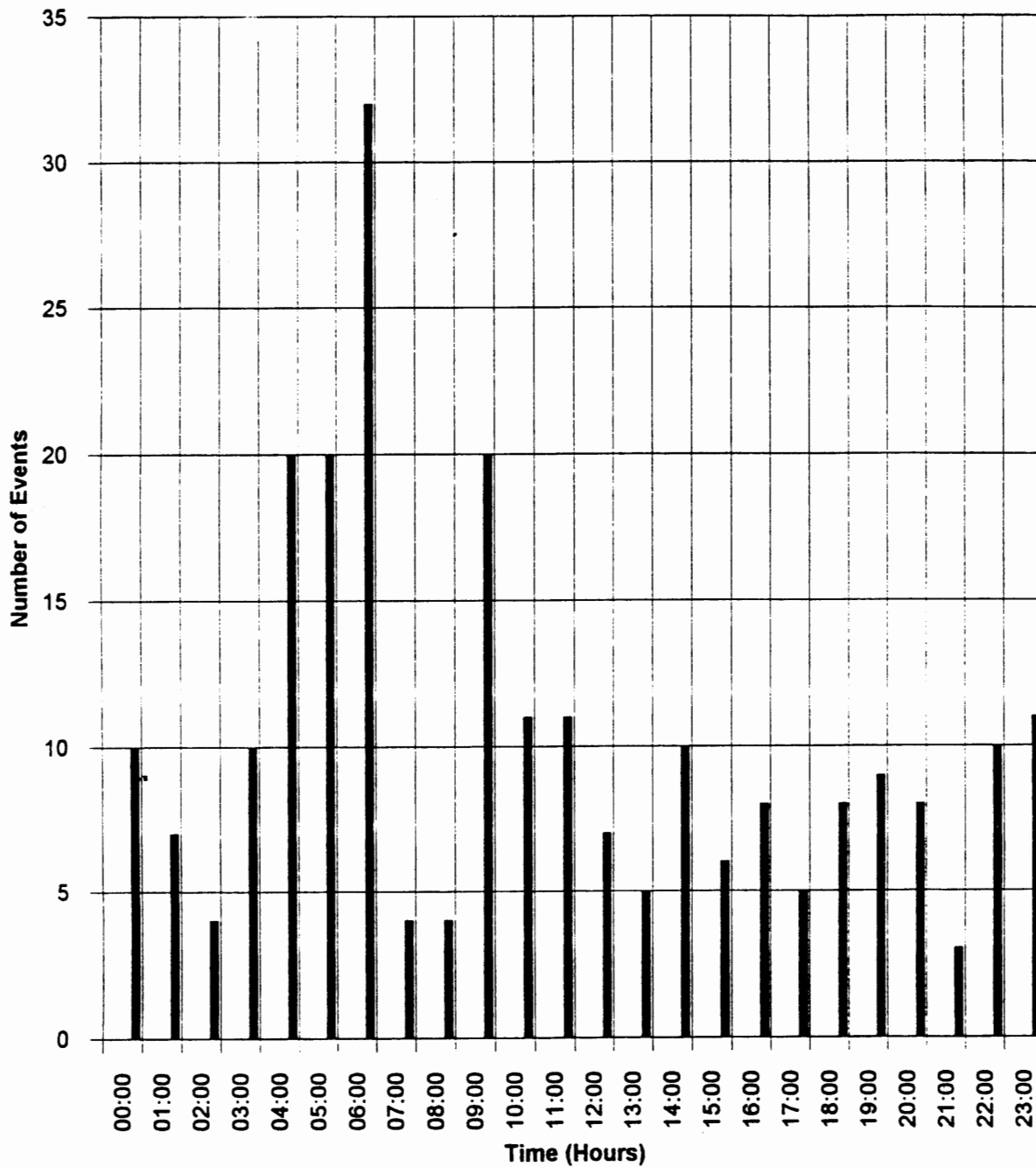
MA:cl

35X

**Table 1 - Maximum and Average A-weighted Sound Levels From Sample Hours of a 24 Hour Noise Survey, Traffic Sound Levels Above a Threshold of 75 dB(A), Measured at the Gregor Residence, Microphone Approximately 80 Feet From I-287, Harding Township, New Jersey, 22 & 23 June 1994.**

[illegible]

Figure 1 - Number of Events Over a Threshold of 75 dB(A) at the Gregor Residence, 24 Hour Noise Survey, I-287 Approximately 80 Feet From the Microphone, Harding Township, New Jersey, 22 & 23 June 1994.



DATE	DAY OF WEEK	START OF SAMPLE PERIOD	EXISTING NOISE LEVELS (dBA)				VEHICLE COUNTS (P.E.)	DATA INHIBITED % OF SAMPLE PERIOD	NUMBER OF INHIBITS	REMARKS
			L <sub>eq</sub>	L <sub>10</sub>	L <sub>50</sub>	L <sub>90</sub>				
8/22/89	Tuesday	14:00	69	72	66	60		0	0	The microphone is 73 feet from the Route I-287 Travelled way
		15:00	70	73	68	61		0	0	
		16:00	69	72	69	63		0	0	
		17:00	70	72	69	64		0	0	
		18:00	69	72	68	62		0	0	
		19:00	68	71	65	61		0	0	
		20:00	67	70	65	61		0	0	
		21:00	67	70	64	61		0	0	
		22:00	66	70	63	60		0	0	
		23:00	66	69	62	59		0	0	
8/23/89	Wednesday	00:00	66	70	61	58		0	0	
		01:00	64	67	59	57		0	0	
		02:00	66	69	59	56		0	0	
		03:00	65	69	57	53		0	0	
		04:00	66	69	57	51		0	0	
		05:00	68	72	61	53		0	0	
		06:00	71	74	69	61		0	0	
		07:00	71	73	70	67		0	0	
		08:00	71	73	70	66		0	0	
		09:00	70	74	69	62		0	0	
		10:00	69	73	67	61		0	0	
		11:00	69	73	67	60		0	0	
		12:00	69	72	67	60		0	0	
		13:00	69	72	66	59		0	0	

TRAFFIC COUNTS AND SPEEDS

MISC.	HEAVY TRUCKS	MEDIUM TRUCKS	CARS	DATE	START OF SAMPLE PERIOD	CARS	MEDIUM TRUCKS	HEAVY TRUCKS	MISC.
	AVERAGE SPEED (MPH)	AVERAGE SPEED (MPH)	AVERAGE SPEED (MPH)			AVERAGE SPEED (MPH)	AVERAGE SPEED (MPH)	AVERAGE SPEED (MPH)	

38X

Lewis S. Goodfriend & Associates  
CONSULTING ENGINEERS IN ACOUSTICS

301 East Hanover Avenue  
Morristown, New Jersey 07960-4077  
201/540-8811 • FAX 201 540 0391

2 September 1994

Mr. Richard Wiedmann  
Township Administrator  
Post Office Box 666  
New Vernon, New Jersey 07976

Re: Harding Township I-287 Noise Measurements  
LSG&A File 94042

Dear Mr. Wiedmann:

Lewis S. Goodfriend & Associates has conducted a second set of 24-hour sound pressure level measurements at three residences in Harding Township. Due to inclement weather and equipment malfunction, we have only completed two sets of measurements to date. We expect to have the measurements at the third location completed by the second week of September.

The 24-hour measurements were performed at the following locations:

- Location 1 - The Weinstein residence on Baxter Farm Drive. The microphone was located even with the edge of the house facing the highway, 50 feet from the house and approximately 1000 feet from I-287.
- Location 2 - The Wild residence on Tiger Lily Lane. The microphone was located even with the edge of the house facing the highway, 50 feet from the house and approximately 50 feet from I-287.
- Location 3 - The Forbes residence on Stark Drive. The microphone was located even with the edge of the house facing the highway, 30 feet from the house and approximately 45 feet from I-287.

2 September 1994

Meteorological conditions during the measurements were: temperatures in excess of 70°F., wind speeds less than 5 mph, and clear skies.

Table 1 lists the hourly  $L_{eq}$  and  $L_{10}$  statistical noise levels for both completed measurement locations. Of special note is the Tiger Lily Lane data. Here, the sound levels show little temporal variation. The  $L_{10}$  is between 71 and 74 dB(A) for the entire 24-hour measurement period. This result is similar to the results obtained at the Gregor residence. Also note, that the Baxter Farm Road data indicates substantially lower sound levels, although again, fairly constant in level over the 24-hour period. Levels at this location are still controlled by traffic on Route 202 and I-287.

We will submit an addenda when we complete the additional measurements. Please call should you have any questions.

Very truly yours,

LEWIS S. GOODFRIEND & ASSOCIATES



Martin Alexander, P.E.  
Senior Engineer

MA:ck  
Enclosure

40X

Table 1 - A-Weighted Hourly  $L_{10}$  and  $L_{eq}$  Statistical Sound Pressure Levels Measured Along Route I-287, Township of Harding, New Jersey, 24-to-25 and 29-to-30 August 1994.

<u>Hour</u>	<u>Location 1</u>		<u>Location 2</u>	
	<u><math>L_{eq}(h)</math></u>	<u><math>L_{10}(h)</math></u>	<u><math>L_{eq}(h)</math></u>	<u><math>L_{10}(h)</math></u>
0000	55	56	67	71
0100	54	55	66	71
0200	54	55	67	72
0300	55	56	68	72
0400	53	56	68	73
0500	56	56	69	74
0600	55	55	71	74
0700	55	55	72	73
0800	55	56	71	73
0900	55	56	71	74
1000	53	55	70	73
1100	55	55	71	73
1200	56	57	70	73
1300	56	57	69	72
1400	55	58	69	72
1500	56	57	70	73
1600	56	54	70	73
1700	54	55	71	73
1800	55	56	71	73
1900	54	55	70	73
2000	56	56	68	72
2100	54	56	68	72
2200	56	57	68	72
2300	55	56	68	72

**Lewis S. Goodfriend & Associates**  
CONSULTING ENGINEERS IN ACOUSTICS

301 East Hanover Avenue  
Morristown, New Jersey 07960-4077  
201/540-8811 • FAX 201 540 0391

13 September 1994

Mr. Richard Wiedmann  
Township Administrator  
Township of Harding  
Post Office Box 666  
New Vernon, New Jersey 07976

Re: Harding Township I-287 Noise Measurements  
LSG&A File 94042

Dear Mr. Wiedmann:

This report updates and replaces our report dated 2 September 1994, and provides additional measurement results of Route I-287. Lewis S. Goodfriend & Associates has completed a second set of 24-hour sound pressure level measurements at three residences in Harding Township.

Measurements were performed at the following locations:

Location 1 - The Weinstein residence on Baxter Farm Drive. The microphone was located even with the edge of the house facing the highway, approximately 1000 feet from the closest edge of Route I-287, and 50 feet from the back of the house. Hourly statistical sound levels were measured at this location.

Location 2 - The Wild residence on Tiger Lily Lane. The microphone was located even with the edge of the house facing the highway, approximately 50 feet from the closest edge of Route I-287, and 50 feet from the front of the house. Hourly statistical sound levels were completed at this location.

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Location 3 - The Forbes residence on Stark Drive. The microphone was located even with the edge of the house facing the highway, approximately 100 feet from the closest edge of Route I-287, and 30 feet from the back of the house. This location is close to the rest area on I-287. Event logging was performed at this location.

Location 4 - The Forbes residence on Stark Drive. The microphone was located even with the edge of the house facing the highway, 65 feet from the closest edge of Route I-287, and 40 feet from the front of the house. This location is closest to the highway at this residence. Hourly statistical sound levels were measured.

Meteorological conditions were acceptable for acoustical measurements. During set-up of the equipment, daytime temperatures were in excess of 70°F, wind speeds were less than 5 mph, and the skies were clear.

Table 1 lists the hourly  $L_{eq}$  and  $L_{10}$  statistical noise levels at Locations 1, 2 and 4. Note that, the sound levels show little variation over time. At Location 2, for example, the  $L_{10}$  is between 71 and 74 dB(A) for the entire 24-hour measurement period. This result is similar to the results obtained at the Gregor residence. Also note, that the Baxter Farm Road data indicates substantially lower sound levels, although again, fairly constant in level over the 24-hour period. Sound levels at this location are a result of traffic on Route 202, I-287, and insect noise.

13 September 1994

Figure 1 shows the number of events occurring at Location 3 that exceed 70 dB(A) for a duration of at least 2 seconds.

Should you have any questions regarding this information, please call.

Very truly yours,

LEWIS S. GOODFRIEND & ASSOCIATES

A handwritten signature in cursive script, appearing to read "Martin Alexander, P.E.", with a small flourish at the end.

Martin Alexander, P.E.  
Senior Engineer

MA:ck  
Enclosure

44X

Table 1 - A-Weighted Hourly L10 and Leq Statistical Sound Levels Measured  
Along Route I-287, Township of Harding, New Jersey, 1994.

Hour	Location #1		Location #2		Location #4	
	24-to-25 August		29-to-30 August		7-to-8 September	
	Leq(h)	L10(h)	Leq(h)	L10(h)	Leq(h)	L10(h)
00:00	55	56	67	71	65	70
01:00	54	55	66	71	65	70
02:00	54	55	67	72	65	70
03:00	55	56	68	72	65	69
04:00	53	56	68	73	65	70
05:00	56	56	69	74	66	70
06:00	55	55	71	74	67	71
07:00	55	55	72	73	69	71
08:00	55	56	71	73	68	70
09:00	55	56	71	74	69	71
10:00	53	55	70	73	68	71
11:00	55	55	71	73	68	71
12:00	56	57	70	73	68	71
13:00	56	57	69	72	67	70
14:00	55	58	69	72	68	71
15:00	56	57	70	73	67	70
16:00	56	54	70	73	68	70
17:00	54	55	71	73	69	71
18:00	55	56	71	73	68	71
19:00	54	55	70	72	68	70
20:00	56	56	68	72	67	70
21:00	54	56	68	72	66	70
22:00	56	57	68	72	67	70
23:00	55	56	68	72	65	69

Mr. Richard Wiedmann

-3-

13 September 1994

Figure 1 shows the number of events occurring at Location 3 that exceed 70 dB(A) for a duration of at least 2 seconds.

Should you have any questions regarding this information, please call.

Very truly yours,

LEWIS S. GOODFRIEND & ASSOCIATES



Martin Alexander, P.E.  
Senior Engineer

MA:ck  
Enclosure

46X

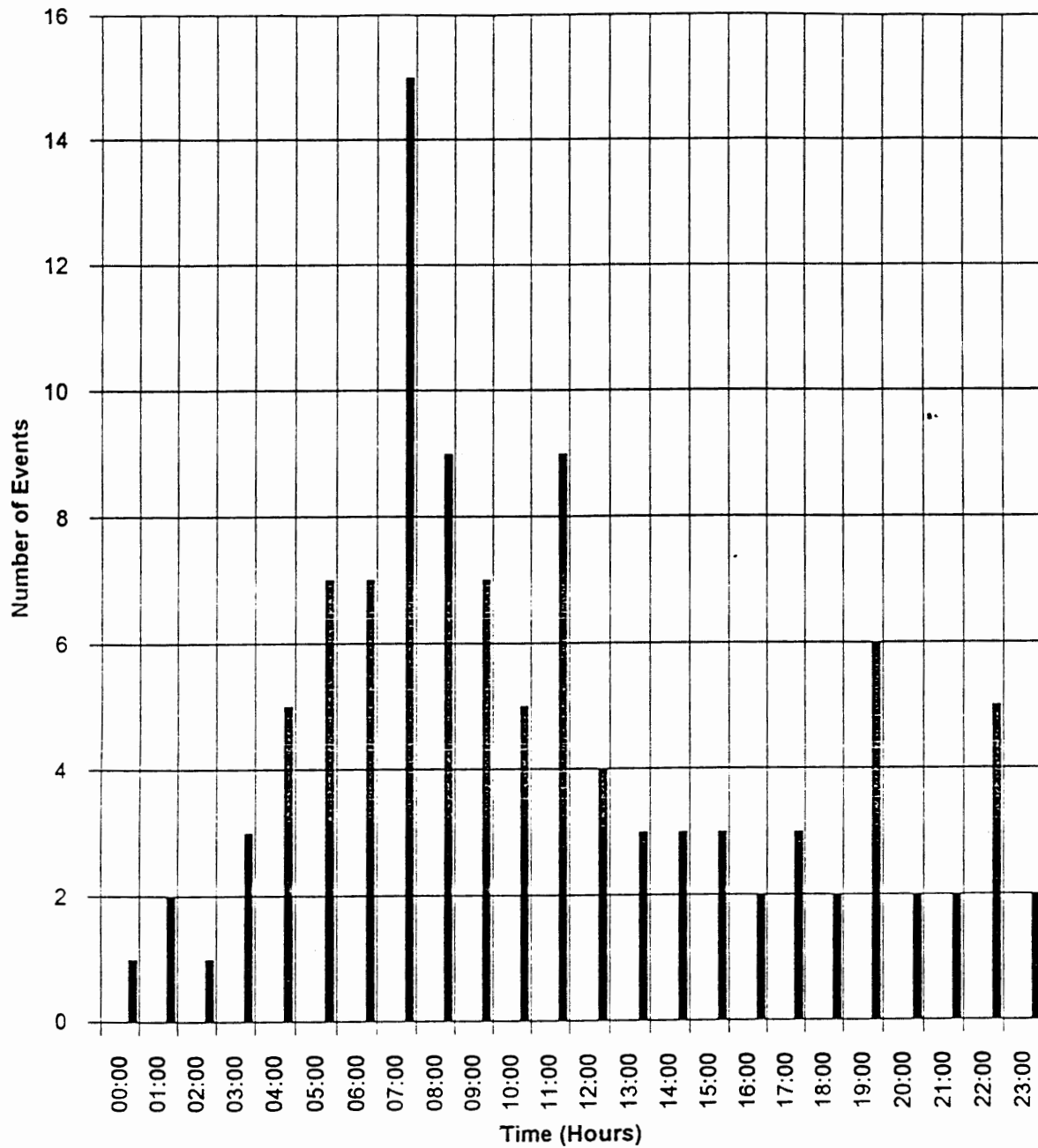


Figure 1 - Number of Events Over a Threshold of 70 dB(A) for a Duration of 2 Seconds at Location 3, During the 24-Hour Noise Survey, Microphone Positioned 100 Feet from Edge of Closest Lane of Route I-287, Township of Harding, New Jersey, 9 and 10 August 1994.

47X

# **HIGHWAY TRAFFIC NOISE IN THE UNITED STATES PROBLEM AND RESPONSE**

**BY**

**U.S. DEPARTMENT OF TRANSPORTATION  
FEDERAL HIGHWAY ADMINISTRATION  
OFFICE OF ENVIRONMENT AND PLANNING  
NOISE AND AIR QUALITY BRANCH  
WASHINGTON, D.C.**

**AUGUST 1994**

48X

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## INTRODUCTION

Noise, defined as unwanted or excessive sound, is an undesirable by-product of our modern way of life. It can be annoying, can interfere with sleep, work, or recreation, and in extremes may cause physical and psychological damage. While noise emanates from many different sources, transportation noise is perhaps the most pervasive and difficult source to avoid in society today. Highway traffic noise is a major contributor to overall transportation noise. A broad-based effort is needed to control transportation noise. This effort must achieve the goals of personal privacy and environmental quality while continuing the flow of needed transportation services for a quality society.

### Purpose

This report has been developed to provide information about the problem of highway traffic noise and the United States' response to that problem. This report summarizes 1) the general nature of the problem, 2) the response of the Federal Highway Administration (FHWA) to the problem, and 3) highway noise barriers constructed or planned. Before discussing these items, however, a general discussion of the Federal-aid highway program is included to assist the reader.

### The Highway System

Most (95 percent) roads and streets in the United States are under the jurisdiction of State and local governments. The Federal jurisdiction is mainly limited to National Parks, National Forests, and other government-owned land. Generally in these areas, there are no permanent residents and, therefore, no noise problem of any extent.

Ownership of the roads in the United States is shown in Table 1.

Table 1  
Road Ownership in the United States - 1992

<u>Owner</u>	<u>Linear Kilometers *</u>	<u>Percent Of All Roads</u>
Federal	294	5
State	1,291	20
Local	4,708	75

\* Rounded to the nearest thousand

The Federal-aid highway program is a federally assisted, State administered grant program which provides Federal funds to State and local governments to construct and improve highways. For over two decades, the program was directed primarily toward the construction and improvement of four Federal-aid systems (designated routes upon which Federal funds could be used) - Interstate, Primary, Secondary, and Urban - which constituted about 1.4 million kilometers of the 6.3 million kilometers of roads in the United States.

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) set the course for future roles of federal, state, and local government in maintaining the country's highways, bridges, and mass transit facilities, and in strengthening highway safety programs. The ISTEA called for linking "...all forms of transportation in a unified, interconnected manner...economically efficient and environmentally sound...[to] move people and goods in an energy efficient manner." The ISTEA restructured the Federal-aid highway program and established two Federal-aid systems - the National Highway System (NHS) and the Interstate System, which is a component of the NHS. The revised Federal-aid program includes about 1.5 million kilometers of the 6.3 million kilometers of roads in the United States. As can be seen in Table 2, urban roadways currently comprise a small portion of total roadways yet carry a large portion of all highway travel.

Table 2  
Classification of Roads by Functional System - 1992

<u>System</u>	<u>Linear Kilometers *</u>	<u>Percent of All Roads</u>	<u>Percent of Vehicle Kilometers Traveled</u>
Urban	1,266	20.1	60.6
Rural	<u>5,027</u>	<u>79.9</u>	<u>39.4</u>
TOTAL	6,293	100.0	100.0

\* Rounded to nearest thousand

#### The Federal/State Relationship

The FHWA is the designated Federal government agency for administering the Federal-aid highway program. The FHWA mission is to aid States in providing safe and efficient surface transportation for the movement of people and goods by all modes. The FHWA is responsible for providing guidance to State highway agencies and metropolitan planning agencies (MPOs) and for reimbursing the States and MPOs for the Federal share of projects. The States, in cooperation with MPOs, initiate, plan, design, construct, operate, and maintain the highways on the Federal-aid systems.

#### Federal Participation in the Cost of Projects

With a few exceptions, the FHWA does not pay for the entire cost of the projects it funds. Federal funds are normally "matched" with State and/or local government funds to account for the necessary dollars to complete the project. The Federal share is specified in legislation. Interstate System projects are typically funded 90 percent Federal and 10 percent State, but most other types of projects are funded at a slightly lower Federal share (80 percent).

## THREE-PART APPROACH TO NOISE ABATEMENT

Effective control of the undesirable effects of highway traffic noise requires that land use near highways be controlled, that vehicles themselves be quieted, and that mitigation of noise be undertaken on individual highway projects.

The first component is traditionally an area of local responsibility. The other components are the joint responsibility of private industry and of Federal, State, and local governments.

### Land Use Planning and Control

The Federal Government has essentially no authority to regulate land use planning or the land development process. The FHWA and other Federal agencies encourage State and local governments to practice land use planning and control in the vicinity of highways. The Federal Government advocates that local governments use their power to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized.

Some State and local governments have enacted legislative statutes for land use planning and control. As an example, the State of California has legislation on highway noise and compatible land use development. This State legislation requires local governments to consider the adverse environmental effects of noise in their land development process. In addition, the law gives local governments broad powers to pass ordinances relating to the use of land, including among other things, the location, size, and use of buildings and open space.

Although other States and local governments have similar laws, the entire issue of land use is extremely complicated with a vast array of competing considerations entering into any actual land use control decisions. For this reason, it is nearly impossible to measure the progress of using land use to control the effects of noise.

### Source Control

The Noise Control Act of 1972 gives the Federal Environmental Protection Agency (EPA) the authority to establish noise regulations to control major sources of noise, including transportation vehicles and construction equipment. In addition, this legislation requires EPA to issue noise emission standards for motor vehicles used in Interstate commerce (vehicles used to transport commodities across State boundaries) and requires the FHWA Office of Motor Carrier Safety (OMCS) to enforce these noise emission standards.

The EPA has established regulations which set emission level standards for newly manufactured medium and heavy trucks that have a gross vehicle weight rating (GVWR) of more than 4,525 kilograms and are capable of operating on a highway or street. Table 3 shows the maximum noise emission levels allowed by the EPA noise regulations for these vehicles.

**Table 3**  
**Maximum Noise Emission Levels**  
**as Required by EPA for Newly Manufactured Trucks**  
**with GVWR Over 4,525 Kilograms**

Effective Date	Maximum Noise Level 15 Meters from Centerline of Travel*
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January 1, 1988	80 dBA
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\* Using the Society of Automotive Engineers, Inc. (SAE), test procedure for acceleration under 56 kph

For existing (in-use) medium and heavy trucks with a GVWR of more than 4,525 kilograms, the Federal government has authority to regulate the noise emission levels only for those that are engaged in interstate commerce. Regulation of all other in-use vehicles must be done by State or local governments. The EPA emission level standards for in-use medium and heavy trucks engaged in interstate commerce are shown in Table 4 and are enforced by the FHWA OMCS.

**Table 4**  
**Maximum Noise Emission Levels**  
**as Required by EPA for In-Use Medium and Heavy Trucks**  
**with GVWR Over 4,525 Kilograms Engaged in Interstate Commerce**

Effective Date	Speed	Maximum Noise Level 15 Meters from Centerline of Travel
January 8, 1986	< 56 kph	83 dBA
January 8, 1986	> 56 kph	87 dBA
January 8, 1986	Stationary	85 dBA

### Highway Project Noise Mitigation

The National Environmental Policy Act (NEPA) of 1969 provides broad authority and responsibility for evaluating and mitigating adverse environmental effects including highway traffic noise. The NEPA directs the Federal government to use all practical means and measures to promote the general welfare and foster a healthy environment.

A more important Federal legislation which specifically involves abatement of highway traffic noise is the Federal-Aid Highway Act of 1970. This law mandates FHWA to develop noise standards for mitigating highway traffic noise.

The law requires promulgation of traffic noise-level criteria for various land use activities. The law further provides that FHWA not approve the plans and specifications for a federally aided highway project unless the project includes adequate noise abatement measures to comply with the standards. The FHWA has developed and implemented regulations for the mitigation of highway traffic noise in federally-aided highway projects.

The FHWA regulations for mitigation of highway traffic noise in the planning and design of federally aided highways are contained in Title 23 of the United States Code of Federal Regulations Part 772 (attached). The regulations require the following during the planning and design of a highway project: identification of traffic noise impacts; examination of potential mitigation measures; the incorporation of reasonable and feasible noise mitigation measures into the highway project; and coordination with local officials to provide helpful information on compatible land use planning and control. The regulations contain noise abatement criteria which represent the upper limit of acceptable highway traffic noise for different types of land uses and human activities. The regulations do not require that the abatement criteria be met in every instance. Rather, they require that every reasonable and feasible effort be made to provide noise mitigation when the criteria are approached or exceeded. Compliance with the noise regulations is a prerequisite for the granting of Federal-aid highway funds for construction or reconstruction of a highway.

## FHWA NOISE ABATEMENT PROCEDURES

The FHWA noise abatement procedures are codified in the Code of Federal Regulations (23 CFR 772). The procedures are described in the following sections.

### Noise Descriptors

Noise descriptors are used to describe the time-varying nature of noise. The L10 and Leq noise descriptors are used in the abatement procedures. The former is the noise level exceeded 10% of the time in the noisiest hour of the day. The latter is the constant, average sound level, which over a period of time contains the same amount of sound energy as the varying levels of the traffic noise. The L10 is a statistical descriptor that is easy for most people to determine and understand. While the Leq descriptor is harder for inexperienced people to understand, it has the advantages over L10 of being more reliable for low-volume roadways and of permitting noise levels from different sources to be added directly to one another for inclusion in noise analyses. Leq for typical traffic conditions is usually about 3 dBA less than L10 for the same conditions.

### Impact Criteria

A noise impact occurs when either of the following conditions exist:

- (1) The projected noise levels approach or exceed the noise abatement criteria (NAC) shown in Table 5, or
- (2) The projected noise levels substantially increase over the existing noise levels in an area.

**Table 5**  
**Noise Abatement Criteria (NAC)**  
**Hourly A-Weighted Sound Level - decibels (dBA)\***

<u>Activity Category</u>	<u>Leq(h)</u>	<u>L10(h)</u>	<u>Description of Activity Category</u>
A	57 (Exterior)	60 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	70 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	75 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	--	--	Undeveloped lands.
E	52 (Interior)	55 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

\* Either L10(h) or Leq(h) (but not both) may be used on a project.

There is no mandated definition for what constitutes a substantial increase over existing noise levels in an area. Most State highway agencies use either a 10 dBA increase or a 15 dBA increase in noise levels to define a "substantial increase" in existing noise levels. Several State highway agencies use a sliding scale to define substantial increase. The sliding scale combines the increase in noise levels with the absolute values of the noise levels, allowing for a greater increase at lower absolute levels before a substantial increase occurs.

#### Existing Activities

The location of existing activities in the vicinity of various study alternatives for a highway project are identified by individual land uses, or by broad categories of land use for which a single NAC level may apply. In some cases, lands that are undeveloped at the time of the project may be known to be under consideration for development in the future. If this is the case and definite commitments have been made to develop the land, then these lands are treated as developed and the highway noise impacts assessed accordingly. Primary consideration for highway traffic noise analysis is normally given to exterior areas where frequent human use occurs.

#### Type I/ Type II Projects

The FHWA regulation makes a distinction between projects for which noise abatement is considered as a feature in a new or expanded highway and those for which noise abatement is considered as a retrofit feature on an existing highway. The former are defined as Type I projects, the latter as Type II. For Type I projects, the consideration of noise abatement as part of the highway construction project is mandatory if Federal-aid funds are to be used and if a traffic noise impact is expected to occur. Type II projects are, however, completely voluntary on the part of the individual States, and funds for such projects compete with all the other construction needs of the States.

#### Noise Analysis

Analysis of the traffic noise impacts expected from construction of a highway involves a number of technical steps. The traffic noise analysis includes the following for each alternative under detailed study:

- (1) identification of existing activities, developed lands, and undeveloped lands for which development is planned, designed and programmed, which may be affected by traffic noise from the highway;
- (2) prediction of traffic noise levels;
- (3) determination of existing noise levels;
- (4) determination of traffic noise impacts; and
- (5) examination and evaluation of alternative noise abatement measures for reducing or eliminating the noise impacts.



If potential traffic noise impacts are identified, noise abatement is considered and implemented if it is found to be both reasonable and feasible. The views of the impacted residents are a major consideration in reaching a decision on the reasonableness of abatement measures to be provided. When noise abatement measures are being considered, every reasonable effort is made to obtain substantial noise reductions. Substantial noise reductions have been defined by State highway agencies to typically range from 5 to 10 dBA.

#### Federal Participation

Federal funds may be used for noise abatement measures where:

- (1) a traffic noise impact has been identified,
- (2) the noise abatement measures will reduce the traffic noise impact, and
- (3) the overall noise abatement benefits are determined to outweigh the overall adverse social, economic, and environmental effects and the costs of the noise abatement measures.

The Federal share of the abatement costs is at the same participating ratio as for the system on which the project is located.

#### Noise Abatement

If noise impacts are identified, various noise abatement measures are considered to mitigate the adverse impacts. Noise barriers are the mitigation measure that is most often associated with the concept of noise abatement. For this reason a special section on noise barriers, which begins on page 12, has been included in this report to discuss this subject in more detail.

Other possible noise abatement measures include traffic management measures, creating buffer zones, planting vegetation, installing noise insulation in buildings, and relocating the highway.

Traffic management measures can sometimes reduce noise problems. For example, if acceptable alternative truck routes are available, trucks can be prohibited from certain streets and roads, or they can be permitted to use certain streets and roads only during daylight hours. Traffic lights can be changed to smooth out the flow of traffic and to eliminate the need for frequent stops and starts. Speed limits can be reduced; however, about a 32 kilometer-per-hour reduction in speed is necessary for a noticeable decrease in noise levels.

Buffer zones are undeveloped, open spaces which border a highway. Buffer zones are created when a highway agency purchases land, or development rights, in addition to the normal right-of-way, so that future dwellings cannot be constructed close to the highway. This prevents the possibility of constructing dwellings that would otherwise experience an excessive noise level from nearby highway traffic. An additional benefit of buffer zones is that they often improve the roadside appearance. However, because of the tremendous amount of land that must be purchased and because in many cases dwellings already border existing roads, creating buffer zones is often not possible. Although Federal-aid highway funds may be used on a highway project to create buffer zones, this measure has not been used very often.

Vegetation, if it is high enough, wide enough, and dense enough that it cannot be seen over or through, can decrease highway traffic noise. A 61-meter width of dense vegetation can reduce noise by 10 decibels, which cuts in half the loudness of traffic noise. It is not feasible, however, to plant enough vegetation along a road to achieve such reductions. If vegetation already exists, it can be saved to maintain a psychological relief, if not an actual lessening of traffic noise levels. If vegetation does not exist, it can be planted for psychological relief.

Insulating buildings can greatly reduce highway traffic noise, especially when windows are sealed and cracks and other openings are filled. Sometimes noise-absorbing material can be placed in the walls of new buildings during construction. However, insulation can be costly because air conditioning is usually necessary once the windows are sealed. Federal-aid highway funds may be used for noise insulation of public-use or non-profit institutional structures. Such funds may also be used for noise insulation of residences and other private-use buildings where noise impacts are especially severe, and where no other abatement is possible. Very few private-use buildings have been noise insulated with Federal-aid highway funds. The majority of Federal-aid highway funds used for noise insulation has been spent to noise insulate schools. In many parts of the country, highway agencies do not have the authority to insulate buildings; thus, in those States insulation cannot be included as part of a highway project.

A noise attenuation measure that should always be considered is the possibility of altering the highway location to avoid those land use areas which have been determined to have a potential noise impact. Since sound intensity decays with distance from the source, increased distance between the noise source and receiver may reduce the noise impact. It may also be possible to obtain attenuation by depressing the roadway slightly to produce a break in the line of sight from the source to the receiver. Potential noise reduction should be considered with the many other factors that influence the selection of roadway alignment. Since there are very few new highways being built in the United States, the choice of changing the alignment or depressing the roadway is usually not available.

### Coordination With Local Officials

The FHWA noise regulation requires coordination with local officials whose jurisdictions are affected. The primary purpose of this coordination is to promote compatibility between land development and highways.

Highway agencies furnish the following information to appropriate local officials:

- (1) Estimated future traffic noise levels at various distances from the highway improvement.
- (2) Locations where local communities should protect future land development from becoming incompatible with anticipated highway traffic noise levels.

### Traffic Noise Prediction

The FHWA has developed a model to accurately predict future highway traffic noise levels. State highway agencies either use the FHWA model for highway traffic noise analysis or a model based upon the same methodology as that contained in the FHWA model.

The FHWA has also developed national averages of vehicle emission levels to be used in the FHWA prediction model. State highway agencies either use the national average levels or measure their own levels based upon FHWA measurement procedures.

### Construction Noise

Highway construction noise is not a major issue in the United States. This noise is often viewed by the public as being short term and a necessary price for growth and improvement. Highway construction noise should generally be addressed in a qualitative rather than quantitative manner that is commensurate with the scope of the highway project. Construction noise levels may be predicted, if warranted. If potential construction noise impacts are identified, a common sense approach should be utilized to incorporate appropriate abatement measures into the highway project.

## NOISE BARRIERS CONSTRUCTED OR PLANNED

Noise barriers are 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. Earth berms have a very natural appearance and are usually attractive. However, an earth berm can require quite a lot of land if it is very high. Walls take less space. They are usually limited to eight meters in height because of structural and aesthetic reasons. Noise walls can be built out of wood, stucco, concrete, masonry, metal, and other materials. Many attempts are being made to construct noise barriers that are visually pleasing and that blend with their surroundings.

### Noise Barriers Constructed

The Federal-aid highway program has always been based on a strong State-Federal partnership. At the core of that partnership is a philosophy of trust and flexibility, and a belief that the States are in the best position to make investment decisions that are based on the needs and priorities of their citizens. The FHWA noise regulations give each SHA flexibility in determining the reasonableness and feasibility of noise abatement and, thus, in balancing the benefits of noise abatement against the overall adverse social, economic, and environmental effects and costs of the noise abatement measures. The SHA must base its determination on the interest of the overall public good, keeping in mind all the elements of the highway program (need, funding, environmental impacts, public involvement, etc.). Congress affirmed and extended the philosophy of partnership, trust, and flexibility in the enactment of ISTEA.

The flexibility in noise abatement decisionmaking is reflected by data indicating that some States have built many noise barriers and some have built none. From 1970 to 1992, forty State highway agencies (SHAs) and the Commonwealth of Puerto Rico have constructed over 1,486 linear kilometers of barriers at a cost of over \$816 million (\$875 million in 1992 dollars). Ten States and the District of Columbia have not constructed noise barriers to date. Table 6 shows total noise barrier lengths by material type. Table 7 lists the ten States that have constructed the most noise barriers, in terms of length and cost. The cost data in Table 7 give a general indication of trends. However, the data should not be used for exact comparisons, since precise, uniform individual barrier costs are very difficult to obtain. Table 8 lists the ten States that have not constructed noise barriers to date.

**Table 6**  
**Total Noise Barrier Length by Material Type**  
**(1970-1992)**

<b>Single Material Barriers</b>		<b>Combination Barriers</b>	
<u>Material</u>	<u>Length in Linear Kilometers</u>	<u>Material</u>	<u>Length in Linear Kilometers</u>
Concrete/Precast	431.4	Berm/Wood	52.8
Block	373.6	Berm/Concrete	37.3
Berm Only	84.3	Wood/Concrete	27.2
Wood/Post & Plank	80.6	Berm/Metal	23.6
Wood/Unspecified	80.7	Concrete/Brick	21.9
Concrete/Unspecified	61.0	Berm/Block	13.1
Metal/Unspecified	49.1	Concrete/Block	12.4
Wood/Glue Laminated	47.1	Wood/Metal	11.9
Brick	16.6	Metal/Concrete	11.6
Other	14.3	Wood/Block	7.2
		Berm/Wood/Concrete	5.0
		Berm/Wood/Metal	4.8
		Other	19.2
<b>Total</b>	<b>1,238.7</b>	<b>Total</b>	<b>248.0</b>

**Table 7**  
**Noise Barrier Construction By State**  
**(Greatest by linear kilometers and cost)**  
**(1970-1992)**

<u>Linear Kilometers</u>		<u>Actual Cost (Millions)</u>		<u>1992 Dollars (Millions)</u>	
California*	391.0	California*	\$180.0	California*	\$200.4
New Jersey	93.4	New Jersey	114.9	New Jersey	114.1
Minnesota	91.6	Maryland	61.5	Maryland	62.4
Colorado	77.4	Pennsylvania	61.1	Pennsylvania	61.1
New York	72.6	New York	52.4	Virginia	55.3
Virginia	71.1	Virginia	48.9	New York	52.8
Pennsylvania	69.0	Michigan	35.6	Minnesota	46.7
Oregon	60.7	Minnesota	32.6	Michigan	38.6
Michigan	57.6	Florida	30.8	Florida	30.9
Maryland	47.1	Connecticut	22.2	Connecticut	23.4
<b>10-State Total</b>	<b>1,031.5</b>		<b>\$608.0</b>		<b>\$685.7</b>

\* California did not provide post 1989 data.

**Table 8**  
**States That Have Not Constructed Noise Barriers to Date**

Alabama	Kansas	North Dakota	Wyoming
Hawaii	Mississippi	Rhode Island	
Idaho	Montana	South Dakota	

### Effectiveness

Noise barriers can be quite effective in reducing noise for receptors within approximately 61 meters of a highway. Table 9 summarizes barrier attenuation.

Table 9  
Barrier Attenuation

<u>Reduction in Sound Level</u>	<u>Reduction in Acoustic Energy</u>	<u>Degree of Difficulty To Obtain Reduction</u>
5 dBA	70%	Simple
10 dBA	90%	Attainable
15 dBA	97%	Very Difficult
20 dBA	99%	Nearly Impossible

Barriers do have limitations. For a noise barrier to work, it must be high enough and long enough to block the view of a road. Noise barriers do very little good for homes on a hillside overlooking a road or for buildings which rise above the barrier. Openings in noise walls for driveway connections or intersecting streets greatly reduce the effectiveness of barriers. In some areas, homes are scattered too far apart to permit noise barriers to be built at a reasonable cost.

### Public Perception

Overall, public reaction to highway noise barriers appears to be positive. There is, however, a wide diversity of specific reactions to barriers. Residents adjacent to barriers have stated that conversations in households are easier, sleeping conditions are better, a more relaxing environment is created, windows are opened more often, and yards are used more in the summer. Perceived non-noise benefits include increased privacy, cleaner air, improved view and sense of ruralness, and healthier lawns and shrubs. Negative reactions have included a restriction of view, a feeling of confinement, a loss of air circulation, a loss of sunlight and lighting, and poor maintenance of the barrier. Most residents near a barrier seem to feel that barriers effectively reduce traffic noise and that the benefits of barriers outweigh the disadvantages of the barriers.

### Research Efforts

Over the last two decades, much work has been done within the highway program to develop the basic tools necessary to analyze the impacts of highway traffic noise. Efforts have focused on the establishment of criteria for considering highway traffic noise, the measurement and prediction of noise levels, and the development and evaluation of feasible measures to abate highway traffic noise. Today, research efforts are continuing to assure that analysis tools reflect the current state-of-the-art in highway traffic noise, while meeting the program needs of State highway agencies.

Highway traffic noise research has been guided and continues to be guided by representatives of State highway agencies, other State government agencies, local government agencies, Federal agencies, and the academic and private sectors. An important part of this cooperative effort is the work of the Transportation Research Board Committee on Transportation-Related Noise and Vibration, which has been instrumental in identifying and prioritizing research needs. Another important part of this effort is the research work that individual States conduct within their own highway programs.

Future research efforts will strive to produce more cost effective solutions and efficient allocation of resources to deal with the problems of highway traffic noise. Emphasis is anticipated in the areas of traffic noise prediction and abatement analysis.

## SUMMARY

The United States has undertaken a program which utilizes a three-part approach to the abatement of highway traffic noise. Noise-compatible development through effective land use planning and control is traditionally an area of local responsibility. Source control or control of noise emissions from the vehicles themselves is a joint responsibility of private industry and of Federal, State, and local governments. The FHWA has established noise standards for different types of land use activities adjacent to highways. These standards require that for certain types of federally-aided highway projects, States must conduct noise analyses to identify potential highway traffic noise impacts. If impacts are identified, noise abatement measures must be considered and implemented if determined to be both reasonable and feasible. Among the various types of possible abatement measures, the construction of noise barriers is most commonly used.

## 23 CFR PART 772 - PROCEDURES FOR ABATEMENT OF HIGHWAY TRAFFIC NOISE AND CONSTRUCTION NOISE

Sec.

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Table 1 - Noise Abatement Criteria

Appendix A - National Reference Energy Mean Emission Levels as a Function of Speed

Authority: 23 U.S.C. 109(h), 109(i); 42 U.S.C. 4331, 4332; 49 CFR 1.48(b).

Source: 47 FR 29654, July 8, 1982; 47 FR 33956, Aug. 5, 1982, unless otherwise noted.

### Sec. 772.1 Purpose.

To provide procedures for noise studies and noise abatement measures to help protect the public health and welfare, to supply noise abatement criteria, and to establish requirements for information to be given to local officials for use in the planning and design of highways approved pursuant to Title 23, United States Code (U.S.C.).

### Sec. 772.3 Noise Standards.

The highway traffic noise prediction requirements, noise analyses, noise abatement criteria, and requirements for informing local officials in this regulation constitute the noise standards mandated by 23 U.S.C. 109(i). All highway projects which are developed in conformance with this regulation shall be deemed to be in conformance with the Federal Highway Administration (FHWA) noise standards.

### Sec. 772.5 Definitions.

(a) Design year. The future year used to estimate the probable traffic volume for which a highway is designed. A time, 10 to 20 years, from the start of construction is usually used.

(b) Existing noise levels. The noise, resulting from the natural and mechanical sources and human activity, considered to be usually present in a particular area.

(c)  $L_{10}$ . The sound level that is exceeded 10 percent of the time (the 90th percentile) for the period under consideration.

(d)  $L_{10}(h)$ . The hourly value of  $L_{10}$ .

(e)  $L_{eq}$ . The equivalent steady-state sound level which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same time period.

(f)  $L_{eq}(h)$ . The hourly value of  $L_{eq}$ .

66X



(g) Traffic noise impacts. Impacts which occur when the predicted traffic noise levels approach or exceed the noise abatement criteria (Table 1), or when the predicted traffic noise levels substantially exceed the existing noise levels.

(h) Type I projects. A proposed Federal or Federal-aid highway project for the construction of a highway on new location or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes.

(i) Type II projects. A proposed Federal or Federal-aid highway project for noise abatement on an existing highway.

#### Sec. 772.7 Applicability.

(a) Type I projects. This regulation applies to all Type I projects unless it is specifically indicated that a section applies only to Type II projects.

(b) Type II projects. The development and implementation of Type II projects are not mandatory requirements of 23 U.S.C. 109(i) and are, therefore, not required by this regulation. When Type II projects are proposed for Federal-aid highway participation at the option of the highway agency, the provisions of Subsec. 772.9(c), 772.13, and 772.19 of this regulation shall apply.

#### Sec. 772.9 Analysis of Traffic Noise Impacts and Abatement Measures.

(a) The highway agency shall determine and analyze expected traffic noise impacts and alternative noise abatement measures to mitigate these impacts, giving weight to the benefits and cost of abatement, and to the overall social, economic and environmental effects.

(b) The traffic noise analysis shall include the following for each alternative under detailed study:

- (1) Identification of existing activities, developed lands, and undeveloped lands for which development is planned, designed and programmed, which may be affected by noise from the highway;
- (2) Prediction of traffic noise levels;
- (3) Determination of existing noise levels;
- (4) Determination of traffic noise impacts; and
- (5) Examination and evaluation of alternative noise abatement measures for reducing or eliminating the noise impacts.

(c) Highway agencies proposing to use Federal-aid highway funds for Type II projects shall perform a noise analysis of sufficient scope to provide information needed to make the determination required by Sec. 772.13(a) of this chapter.

#### Sec. 772.11 Noise Abatement.

(a) In determining and abating traffic noise impacts, primary consideration is to be given to exterior areas. Abatement will usually be necessary only where frequent human use occurs and a lowered noise level would be of benefit.

(b) In those situations where there are no exterior activities to be affected by the traffic noise, or where the exterior activities are far from or physically shielded from the roadway in a manner that prevents an impact on exterior activities, the interior criterion shall be used as the basis of determining noise impacts.

(c) If a noise impact is identified, the abatement measures listed in Sec. 772.13(c) of this chapter must be considered.

(d) When noise abatement measures are being considered, every reasonable effort shall be made to obtain substantial noise reductions.

(e) Before adoption of a final environmental impact statement or finding of no significant impact, the highway agency shall identify:

(1) Noise abatement measures which are reasonable and feasible and which are likely to be incorporated in the project, and

(2) Noise impacts for which no apparent solution is available.

(f) The views of the impacted residents will be a major consideration in reaching a decision on the reasonableness of abatement measures to be provided.

(g) The plans and specifications will not be approved by FHWA unless those noise abatement measures which are reasonable and feasible are incorporated into the plans and specifications to reduce or eliminate the noise impact on existing activities, developed lands, or undeveloped lands for which development is planned, designed, and programmed.

#### Sec. 772.13 Federal Participation.

(a) Federal funds may be used for noise abatement measures where:

(1) A traffic noise impact has been identified,

(2) The noise abatement measures will reduce the traffic noise impact, and

(3) The overall noise abatement benefits are determined to outweigh the overall adverse social, economic, and environmental effects and the costs of the noise abatement measures.

(b) For Type II projects, noise abatement measures will not normally be approved for those activities and land uses which come into existence after May 14, 1976. However, noise abatement measures may be approved for activities and land uses which come into existence after May 14, 1976, provided local authorities have taken measures to exercise land use control over the remaining undeveloped lands adjacent to highways in the local jurisdiction to prevent further development of incompatible activities.

(c) The noise abatement measures listed below may be incorporated in Type I and Type II projects to reduce traffic noise impacts. The costs of such measures may be included in Federal-aid participating project costs with the Federal share being the same as that for the system on which the project is located, except that Interstate construction funds may only participate in Type I projects.

(1) Traffic management measures (e.g., traffic control devices and signing for prohibition of certain vehicle types, time-use restrictions for certain vehicle types, modified speed limits, and exclusive land designations).

- (2) Alteration of horizontal and vertical alignments.
- (3) Acquisition of property rights (either in fee or lesser interest) for construction of noise barriers.
- (4) Construction of noise barriers (including landscaping for aesthetic purposes) whether within or outside the highway right-of-way. Interstate construction funds may not participate in landscaping.
- (5) Acquisition of real property or interests therein (predominantly unimproved property) to serve as a buffer zone to preempt development which would be adversely impacted by traffic noise. This measure may be included in Type I projects only.
- (6) Noise insulation of public use or nonprofit institutional structures.

(d) There may be situations where (1) severe traffic noise impacts exist or are expected, and (2) the abatement measures listed above are physically infeasible or economically unreasonable. In these instances, noise abatement measures other than those listed in Sec. 772.13(c) of this chapter may be proposed for Types I and II projects by the highway agency and approved by the Regional Federal Highway Administrator on a case-by-case basis when the conditions of Sec. 772.13(a) of this chapter have been met.

#### **Sec. 772.15 Information for Local Officials.**

In an effort to prevent future traffic noise impacts on currently undeveloped lands, highway agencies shall inform local officials within whose jurisdiction the highway project is located of the following:

- (a) The best estimation of future noise levels (for various distances from the highway improvement) for both developed and undeveloped lands or properties in the immediate vicinity of the project,
- (b) Information that may be useful to local communities to protect future land development from becoming incompatible with anticipated highway noise levels, and
- (c) Eligibility for Federal-aid participation for Type II projects as described in Sec. 772.13(b) of this chapter.

#### **Sec. 772.17 Traffic Noise Prediction.**

(a) Any traffic noise prediction method is approved for use in any noise analysis required by this regulation if it generally meets the following two conditions:

- (1) The methodology is consistent with the methodology in the FHWA Highway Traffic Noise Prediction Model (Report No. FHWA-RD-77-108)\*

\* These documents are available for inspection and copying as prescribed in 49 CFR Part 7, Appendix D.

- (2) The prediction method uses noise emission levels obtained from one of the following:

- (i) National Reference Energy Mean Emission Levels as a Function of Speed (Appendix A).

(ii) Determination of reference energy mean emission levels in Sound Procedures for Measuring Highway Noise: Final Report, DP-45-1R. \*

(b) In predicting noise levels and assessing noise impacts, traffic characteristics which will yield the worst hourly traffic noise impact on a regular basis for the design year shall be used.

Sec. 772.19 Construction Noise.

The following general steps are to be performed for all Types I and II projects:

(a) Identify land uses or activities which may be affected by noise from construction of the project. The identification is to be performed during the project development studies.

(b) Determine the measures which are needed in the plans and specifications to minimize or eliminate adverse construction noise impacts to the community. This determination shall include a weighing of the benefits achieved and the overall adverse social, economic and environmental effects and the costs of the abatement measures.

(c) Incorporate the needed abatement measures in the plans and specifications.

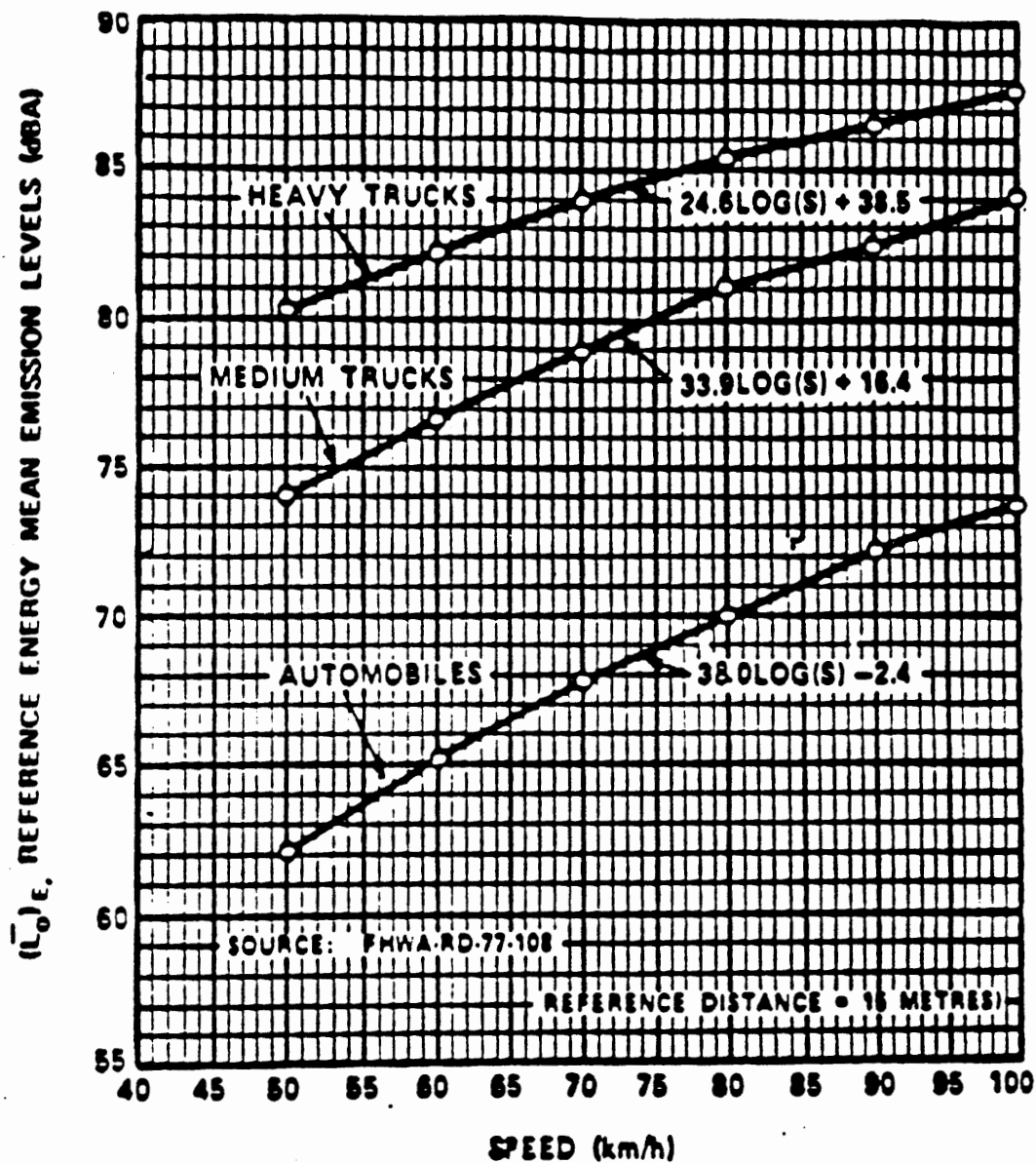
TABLE 1

Noise Abatement Criteria (NAC)  
Hourly A-Weighted Sound Level in Decibels (dBA)\*

Activity Category	$L_{eq}(h)$	$L_{10}(h)$	Description of Activity Category
A	57 (Exterior)	60 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	70 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	75 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	--	--	Undeveloped lands.
E	52 (Interior)	55 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

\* Either  $L_{eq}(h)$  or  $L_{10}(h)$  (but not both) may be used on a project.

## APPENDIX A



### LEGEND:

1. AUTOMOBILES: ALL VEHICLES WITH TWO AXLES AND FOUR WHEELS.
2. MEDIUM TRUCKS: ALL VEHICLES WITH TWO AXLES AND SIX WHEELS.
3. HEAVY TRUCKS: ALL VEHICLES WITH THREE OR MORE AXLES.

**National Reference Energy Mean Emission  
Levels as a Function of Speed**

be returned to a condition which is at least as good as that which existed prior to the project; and

(v) There must be documented agreement of the appropriate Federal, State, or local officials having jurisdiction over the resource regarding the above conditions.

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#### § 771.137 International actions.

(a) The requirements of this part apply to:

(1) Administration actions significantly affecting the environment of a foreign nation not participating in the action or not otherwise involved in the action.

(2) Administration actions outside the U.S., its territories, and possessions which significantly affect natural resources of global importance designated for protection by the President or by international agreement.

(b) If communication with a foreign government concerning environmental studies or documentation is anticipated, the Administration shall coordinate such communication with the Department of State through the Office of the Secretary of Transportation.

### PART 772—PROCEDURES FOR ABATEMENT OF HIGHWAY TRAFFIC NOISE AND CONSTRUCTION NOISE

Sec.

772.1 Purpose.

772.3 Noise standards.

772.5 Definitions.

772.7 Applicability.

772.9 Analysis of traffic noise impacts and abatement measures.

772.11 Noise abatement.

772.13 Federal participation.

772.15 Information for local officials.

772.17 Traffic noise prediction.

772.19 Construction noise.

TABLE 1 TO PART 772—NOISE ABATEMENT CRITERIA

APPENDIX A TO PART 772—NATIONAL REFERENCE ENERGY MEAN EMISSION LEVELS AS A FUNCTION OF SPEED

AUTHORITY: 23 U.S.C. 109(h), 109(i); 42 U.S.C. 4331, 4332; 49 CFR 1.48(b).

SOURCE: 47 FR 29654, July 8, 1982; 47 FR 33956, Aug. 5, 1982, unless otherwise noted.

### 23 CFR Ch. I (4-1-93 Edition)

#### § 772.1 Purpose.

To provide procedures for noise studies and noise abatement measures to help protect the public health and welfare, to supply noise abatement criteria, and to establish requirements for information to be given to local officials for use in the planning and design of highways approved pursuant to title 23, U.S.C.

#### § 772.3 Noise standards.

The highway traffic noise prediction requirements, noise analyses, noise abatement criteria, and requirements for informing local officials in this regulation constitute the noise standards mandated by 23 U.S.C. 109(i). All highway projects which are developed in conformance with this regulation shall be deemed to be in conformance with the Federal Highway Administration (FHWA) noise standards.

#### § 772.5 Definitions.

(a) *Design year.* The future year used to estimate the probable traffic volume for which a highway is designed. A time, 10 to 20 years, from the start of construction is usually used.

(b) *Existing noise levels.* The noise, resulting from the natural and mechanical sources and human activity, considered to be usually present in a particular area.

(c)  *$L_{10}$ .* The sound level that is exceeded 10 percent of the time (the 90th percentile) for the period under consideration.

(d)  *$L_{10}(h)$ .* The hourly value of  $L_{10}$ .

(e)  *$Leq$* —the equivalent steady-state sound level which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same time period.

(f)  *$Leq(h)$ .* The hourly value of  $Leq$ .

(g) *Traffic noise impacts.* Impacts which occur when the predicted traffic noise levels approach or exceed the noise abatement criteria (Table 1), or when the predicted traffic noise levels substantially exceed the existing noise levels.

(h) *Type I projects.* A proposed Federal or Federal-aid highway project for the construction of a highway on new location or the physical alteration

### Federal Highway Administration, DOT

of an existing highway which significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes.

(i) *Type II projects.* A proposed Federal or Federal-aid highway project for noise abatement on an existing highway.

#### § 772.7 Applicability.

(a) *Type I projects.* This regulation applies to all Type I projects unless it is specifically indicated that a section applies only to Type II projects.

(b) *Type II projects.* The development and implementation of Type II projects are not mandatory requirements of 23 U.S.C. 109(i) and are, therefore, not required by this regulation. When Type II projects are proposed for Federal-aid highway participation at the option of the highway agency, the provisions of §§ 772.9(c), 772.13, and 772.19 of this regulation shall apply.

#### § 772.9 Analysis of traffic noise impacts and abatement measures.

(a) The highway agency shall determine and analyze expected traffic noise impacts and alternative noise abatement measures to mitigate these impacts, giving weight to the benefits and cost of abatement, and to the overall social, economic and environmental effects.

(b) The traffic noise analysis shall include the following for each alternative under detailed study:

(1) Identification of existing activities, developed lands, and undeveloped lands for which development is planned, designed and programmed, which may be affected by noise from the highway;

(2) Prediction of traffic noise levels;

(3) Determination of existing noise levels;

(4) Determination of traffic noise impacts; and

(5) Examination and evaluation of alternative noise abatement measures for reducing or eliminating the noise impacts.

(c) Highway agencies proposing to use Federal-aid highway funds for Type II projects shall perform a noise analysis of sufficient scope to provide information needed to make the deter-

mination required by § 772.13(a) of this chapter.

#### § 772.11 Noise abatement.

(a) In determining and abating traffic noise impacts, primary consideration is to be given to exterior areas. Abatement will usually be necessary only where frequent human use occurs and a lowered noise level would be of benefit.

(b) In those situations where there are no exterior activities to be affected by the traffic noise, or where the exterior activities are far from or physically shielded from the roadway in a manner that prevents an impact on exterior activities, the interior criterion shall be used as the basis of determining noise impacts.

(c) If a noise impact is identified, the abatement measures listed in § 772.13(c) of this chapter must be considered.

(d) When noise abatement measures are being considered, every reasonable effort shall be made to obtain substantial noise reductions.

(e) Before adoption of a final environmental impact statement or finding of no significant impact, the highway agency shall identify:

(1) Noise abatement measures which are reasonable and feasible and which are likely to be incorporated in the project, and

(2) Noise impacts for which no apparent solution is available.

(f) The views of the impacted residents will be a major consideration in reaching a decision on the reasonableness of abatement measures to be provided.

(g) The plans and specifications will not be approved by FHWA unless those noise abatement measures which are reasonable and feasible are incorporated into the plans and specifications to reduce or eliminate the noise impact on existing activities, developed lands, or undeveloped lands for which development is planned, designed, and programmed.

#### § 772.13 Federal participation.

(a) Federal funds may be used for noise abatement measures where:

(1) A traffic noise impact has been identified,

(2) The noise abatement measures will reduce the traffic noise impact, and

(3) The overall noise abatement benefits are determined to outweigh the overall adverse social, economic, and environmental effects and the costs of the noise abatement measures.

(b) For Type II projects, noise abatement measures will not normally be approved for those activities and land uses which come into existence after May 14, 1976. However, noise abatement measures may be approved for activities and land uses which come into existence after May 14, 1976, provided local authorities have taken measures to exercise land use control over the remaining undeveloped lands adjacent to highways in the local jurisdiction to prevent further development of incompatible activities.

(c) The noise abatement measures listed below may be incorporated in Type I and Type II projects to reduce traffic noise impacts. The costs of such measures may be included in Federal-aid participating project costs with the Federal share being the same as that for the system on which the project is located, except that Interstate construction funds may only participate in Type I projects.

(1) Traffic management measures (e.g., traffic control devices and signing for prohibition of certain vehicle types, time-use restrictions for certain vehicle types, modified speed limits, and exclusive land designations).

(2) Alteration of horizontal and vertical alignments.

(3) Acquisition of property rights (either in fee or lesser interest) for construction of noise barriers.

(4) Construction of noise barriers (including landscaping for esthetic purposes) whether within or outside the highway right-of-way. Interstate construction funds may not participate in landscaping.

(5) Acquisition of real property or interests therein (predominantly unimproved property) to serve as a buffer zone to preempt development which would be adversely impacted by traffic noise. This measure may be included in Type I projects only.

(6) Noise insulation of public use or nonprofit institutional structures.

(d) There may be situations where (1) severe traffic noise impacts exist or are expected, and (2) the abatement measures listed above are physically infeasible or economically unreasonable. In these instances, noise abatement measures other than those listed in § 772.13(c) of this chapter may be proposed for Types I and II projects by the highway agency and approved by the Regional Federal Highway Administrator on a case-by-case basis when the conditions of § 772.13(a) of this chapter have been met.

#### § 772.15 Information for local officials.

In an effort to prevent future traffic noise impacts on currently undeveloped lands, highway agencies shall inform local officials within whose jurisdiction the highway project is located of the following:

(a) The best estimation of future noise levels (for various distances from the highway improvement) for both developed and undeveloped lands or properties in the immediate vicinity of the project.

(b) Information that may be useful to local communities to protect future land development from becoming incompatible with anticipated highway noise levels, and

(c) Eligibility for Federal-aid participation for Type II projects as described in § 772.13(b) of this chapter.

#### § 772.17 Traffic noise prediction.

(a) Any traffic noise prediction method is approved for use in any noise analysis required by this regulation if it generally meets the following two conditions:

(1) The methodology is consistent with the methodology in the FHWA Highway Traffic Noise Prediction Model (Report No. FHWA-RD-77-108).\*

(2) The prediction method uses noise emission levels obtained from one of the following:

\*These documents are available for inspection and copying as prescribed in 49 CFR part 7, appendix D.

(i) National Reference Energy Mean Emission Levels as a Function of Speed (appendix A).

(ii) Determination of reference energy mean emission levels in Sound Procedures for Measuring Highway Noise: Final Report, DP-45-1R.\*

(b) In predicting noise levels and assessing noise impacts, traffic characteristics which will yield the worst hourly traffic noise impact on a regular basis for the design year shall be used.

#### § 772.19 Construction noise.

The following general steps are to be performed for all Types I and II projects:

(a) Identify land uses or activities which may be affected by noise from construction of the project. The identification is to be performed during the project development studies.

(b) Determine the measures which are needed in the plans and specifications to minimize or eliminate adverse construction noise impacts to the community. This determination shall include a weighing of the benefits achieved and the overall adverse social, economic and environmental effects and the costs of the abatement measures.

(c) Incorporate the needed abatement measures in the plans and specifications.

TABLE 1—NOISE ABATEMENT CRITERIA  
(Hourly A-Weighted Sound Level—decibels (dBA)<sup>1</sup>)

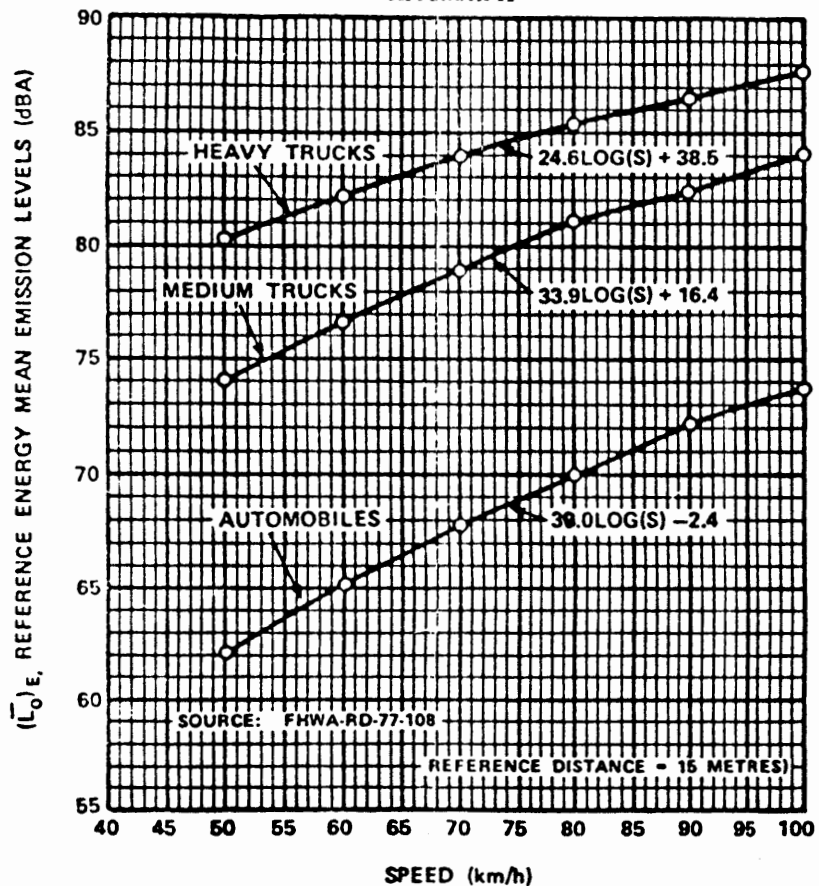
Activity Category	Leq(h)	L <sub>dn</sub> (h)	Description of activity category
A	57 (Exterior)	80 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (Exterior)	70 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (Exterior)	75 (Exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D			Undeveloped lands.
E	52 (Interior)	55 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

<sup>1</sup> Either L<sub>dn</sub>(h) or Leq(h) (but not both) may be used on a project.

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APPENDIX A



LEGEND:

1. AUTOMOBILES: ALL VEHICLES WITH TWO AXLES AND FOUR WHEELS.
2. MEDIUM TRUCKS: ALL VEHICLES WITH TWO AXLES AND SIX WHEELS.
3. HEAVY TRUCKS: ALL VEHICLES WITH THREE OR MORE AXLES.

**National Reference Energy Mean Emission Levels as a Function of Speed**



Even Frank Wilson, the State Transportation Commissioner has stated that his department is reexamining this costly and controversial project.

In addition to helping provide our minimum daily requirement of eyesores, long stretches of wall(s) can:

1. Enhance eye fatigue and promote unsafe driving.
2. Help trap air pollution on the roadways creating another form of unsafe, unhealthy driving.
3. Inhibit the normal melting of snow and ice, adding to hazardous road conditions in winter.
4. Lay the groundwork for the much anticipated -" falling wall zone".

There are probably many more side effects that can be discovered with added research.

A new game has been created, courtesy of these walls, that is popular among many families in the course of their highway drives. With subtle variations the gist of the game is "spotting the walls that appear the most useless". A scale of 1-10 is often used; for example, a wall protecting a cemetery might be worth 10 points to its discoverer or a wall on top of another 30-foot wall (i.e. on Route 78 in Summit) might garner another 10 points. It is amazing how fast the points can pile up. Rumor has it Parker Brothers is interested in marketing their version by Christmas. The sad part is - this game has no winners.

After a few fascinating brainstorming sessions with friends regarding these walls, we determined that as long as they are up they may as well serve other functions, or at least be as

unobtrusive, as possible. Consider the following:

1. Make them retractable - they go underground when traffic is light.
2. Make them out of transparent materials.
3. Construct some so they can be used with ramps to accommodate a growing contingent of skateboarders.
4. Built-in restrooms.
5. Built-in ladders for scenic overlooks.
6. Rent billboard space to offset costs.
7. Construct some pivot walls creating instant roadblocks for state troopers, etc.

Last but not least - -

While all this pontificating and reevaluating of the walls is in progress, one thing is urgent; an immediate moratorium on all new wall construction. Unlike many other mistakes made by our government, these cannot be thrown in the circular file or sold at the next state garage sale. I have a deep seated fear that the only thing more expensive than building these monsters will be the inevitable tearing down of many of them. Again, let us at least prevent the cost of dismantling new monsters by halting any further wall construction until a thorough reevaluation of the whole program is completed, with comprehensive citizen input, i.e. as we are attempting to do here.

Jeffrey R. Mark  
23 Tallmadge Ave.  
Chatham, N. J. 07928  
201-635-6181

New Jersey State Library

77X

**DATE:** September 28, 1994

**TO:** Alex DeCroce, Chairman of the Assembly Transportation &  
Communications Committee

**FROM:** George E. Mikula  
47 Townsend Drive  
Florham Park, N.J. 07932

**SUBJECT:** Miscellaneous Correspondence regarding Route 24 Sound Barrier

GEORGE E. MIKULA

47 Townsend Drive  
Florham Park, New Jersey 07932

May 20, 1993

Mr. Thomas B. Carbone  
Bureau of Environmental Analysis  
DOT CN600  
1035 Parkway Avenue  
Trenton, New Jersey 08625

Dear Mr. Carbone:

I am a long-term resident of Florham Park residing in close proximity to the new Route 24.

Having supported the highway extension for years, both privately and publicly, having spent twelve years on the Borough Council, I am terribly disappointed on how its opening has effected our lives.

I have delayed communicating with you in the hope that spring/summer foliage would eliminate/mitigate some of the problems and indeed it has. The gasoline odor when prevailing winds blow west to east is hardly detectable, while in the winter, it is highly noticeable and obnoxious.

The noise, however, has not abated. The morning and evening commuter hours are terrible. One cannot have a normal conversation in the backyard or on a screened in porch. Indeed, with all doors and double paned windows closed, the noise is obvious in most rooms of the house throughout the year. In fact when large trucks are accelerating up the long incline travelling Eastbound, windows have "shuddered".

I have no idea of what anyone can do at this stage, however I would really appreciate hearing from you as to some course of action, either on the part of the State, County, Town or myself. Perhaps, I might interest you in a cup of coffee some morning or late afternoon to experience it with me.

Looking forward to hearing from you.

Yours very truly,



George E. Mikula

GEM:sal

79X



IN REPLY PLEASE REFER TO

**State of New Jersey**  
**DEPARTMENT OF TRANSPORTATION**

**ROUTE 24 FREEWAY**  
**SECTION 10F & 11J**

THOMAS M. DOWNS  
COMMISSIONER

1035 PARKWAY AVENUE  
CN 600  
TRENTON, NEW JERSEY 08625

July 20, 1993

George E. Mikula  
47 Townsend Drive  
Florham Park, New Jersey 07932

Dear Mr. Mikula:

Your May 20, 1993 letter to Mr. Tom Carbone has been referred to me for a response. In your letter you raised a concern over traffic noise levels and air quality at your home from the recently opened Route 24 Freeway.

With regards to your air quality concerns, in the determination of exhaust emission, attention is generally focused on Carbon Monoxide (CO) levels. CO emission problems are usually associated with the traffic ques at signalized intersections and not with normally free flowing highways like Route 24 Freeway.

With the opening of Route 24 Freeway, the Department did project an increase in noise levels for the Townsend Drive neighborhood and a noise barrier was included into the project to attenuate traffic noise levels. Noise barriers cannot completely eliminate traffic noise but are designed to reduce traffic noise to a more tolerable level. The Department must consider the feasibility, cost and benefit of all noise barriers included as part of a highway construction project. The barrier for the Townsend Drive neighborhood was designed as a cost effective means of reducing the traffic noise levels from Route 24 and eliminating noise impacts.

The Department has already planned to conduct noise monitoring in Mid 1994 at several locations adjacent to Route 24 Freeway and it should be possible to expand our monitoring to include the Townsend Drive area. This monitoring effort would determine the current noise

PAGE TWO

levels in the Townsend Drive neighborhood and these levels can be compared with those projected in the Final Noise Study.

In closing, I do appreciate your concerns. Although the actual noise levels may not have increased substantially, the character of the neighborhood environment has changed.

Sincerely,

*Edward Tomzenti*  
*for*

Domenick Billera  
Project Engineer  
Bureau of Environmental Analysis

GEORGE E. MIKULA  
47 Townsend Drive  
Florham Park, New Jersey 07932

August 25, 1993

Mr. Domenick Billera, Project Engineer  
Bureau of Environmental Analysis  
State of N.J. Dept. of Transportation  
1035 Parkway Avenue  
CN 600  
Trenton, N.J. 08625

Dear Mr. Billera:

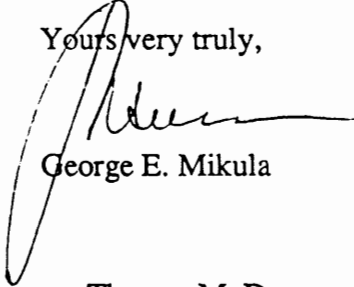
Thank you for your letter of July 20, 1993 in response to my letter of May 20, 1993 addressed to Mr. Thomas B. Carbone.

I would indeed appreciate the Department's expansion of the noise monitoring early 1994 to include the Townsend Drive neighborhood. I suspect the new levels will exceed those projected in the Final Noise Study.

Your closing comment that "the actual noise levels may not have increased substantially..." is 100% incorrect and I think that will be proven.

Thank you for your help.

Yours very truly,



George E. Mikula

cc: Thomas M. Downs  
Thomas B. Carbone  
Alex DeCroce

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IN REPLY PLEASE REFER TO

**State of New Jersey**  
**DEPARTMENT OF TRANSPORTATION**

**ROUTE 24 FREEWAY**  
**SECTION 10F & 11J**

THOMAS M. DOWNS  
COMMISSIONER

1035 PARKWAY AVENUE  
CN 600  
TRENTON, NEW JERSEY 08625

**SEPTEMBER 14, 1993**

George E. Mikula  
47 Townsend Drive  
Florham Park, New Jersey 07932

Dear Mr. Mikula:

Your letter of August 25, 1993 requested additional noise monitoring for Route 24 at the Townsend Drive neighborhood. In response to your request, the Department will schedule monitoring at Townsend Drive for the early part of 1994.

Sincerely,

*Domenick Billera*

Domenick Billera  
Project Engineer  
Bureau of Environmental Analysis



SEPTEMBER 1994

WE THE RESIDENTS OF ROCKAWAY TOWNSHIP DO HEREBY PETITION THAT A PROPERLY DESIGNED SOUND BARRIER BE CONSTRUCTED IN A REASONABLE TIME PERIOD PHYSICALLY BEGINNING AT THE MOUNT HOPE ROAD OVERPASS AND EXTENDING IN A WESTERLY DIRECTION ADJACENT TO THE MUNICIPAL COMPLEX FOR THE DISTANCE OF AT LEAST 1,000 FEET OR THAT WHICH IS DEEMED APPROPRIATE IN ORDER TO BUFFER THE EXISTING AMPLIFIED NOISE LEVEL. THIS REQUEST IS SIMPLY FOR AN EXTENSION OF THE EXISTING BARRIER WHICH ENDS ON THE EAST SIDE OF THE MOUNT HOPE OVERPASS AND EXPOSES THE FOLLOWING CONCERNED HOMEOWNERS TO NOISE LEVELS WHICH ADVERSELY AFFECT THE PEACEFUL AND QUIET ENJOYMENT OF THEIR HOMES DUE TO THE SOUND REFLECTIONS OFF THE WALL ON THE OPPOSITE SIDE OF ROUTE 80 AND THE RESULTING ECHOING THAT FLOWS THRU THE UNPROTECTED AREA. ALSO, PLEASE NOTE THAT THIS A PROBLEM WHICH IS NOW WORSE THAN BEFORE THE CONSTRUCTION OF ANY SOUND BARRIERS ALONG ROUTE 80 AND IS NOW EXTENDING THE NOISE POLLUTION TO A GREATER DISTANCE FROM THE SOURCE. COLLECTIVELY, WE APPRECIATE YOUR CONCERN AND ANY EFFORTS THAT CAN BE MADE IN ORDER TO EFFECTIVELY CORRECT THIS MAN-MADE PROBLEM. ALSO, IT IS IN OUR BEST INTERESTS TO RECEIVE AN OFFICIAL RESPONSE TO THE QUESTION OF WHETHER THE EXISTING WALLS WERE CONSTRUCTED IMPROPERLY WHEREAS THEY ARE INSTALLED BACKWARDS DUE TO AN EMBARRASSING OVERSIGHT OR NEGLIGENT ENGINEERING. THE SMOOTH DIRTY SIDE FACE ROUTE 80 AND REFLECT THE SOUND (NOISE) WHILE THE ROUGH SIDE WHICH IS DESIGNED TO ABSORB OR DAMPEN THE SOUND ARE FACING THE WOODS. THIS IS SIGNIFICANTLY ADDING TO OUR PROBLEM NOT TO MENTION THE FACT THAT THE SMOOTH LIGHT SIDE IS AN INVITATION FOR GRAFFITI WHILE THE ROUGH DARK BROWN SIDE IS A DETERRENT. WE APPRECIATE YOUR CONCERN AND RESPONSE TO THIS PETITION.

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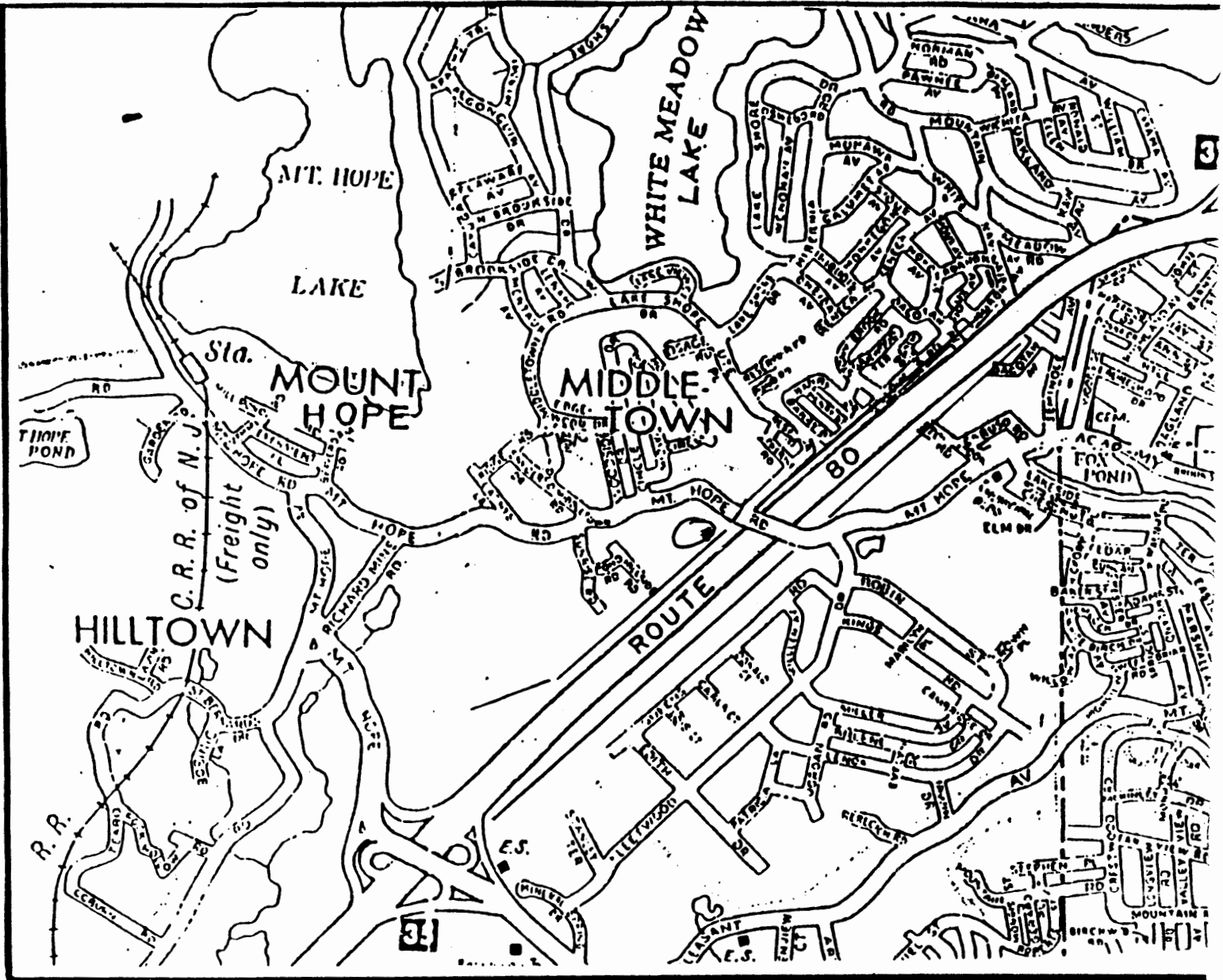
NAME(print)	SIGNATURE	ADDRESS	TELEPHONE
George J. Mikula Jr	George J. Mikula Jr	88 Mount Hope Rd	625-5595
George J. Mikula III	Child	"	"
Luba Mikula	Luba Mikula	88 Mount Hope Rd	"
Elizabeth Stekula	Elizabeth Stekula	79 Mt Hope Rd	627-4678
MARY HORVATH	Mary Horvath	60 Mt. Hope Rd,	627-9352
Susan Schleicher	Susan Schleicher	1 Hunting Meadow Ct	627-4800
John E. Schleicher, Jr.	John E. Schleicher Jr.	1 Hunting Meadow Ct	627-4809
Kylie Schleicher	child	"	"
Andrew Schleicher	child	"	"
Lisa Anderson	Lisa Anderson	3 Huntg Meadow Ct.	UL
Lindsay "	child	"	"
Bobby "	child	"	"
D. Baribean	Baribean	9 Hunting Meadow Ct.	"
M. Baribean	Margaret Baribean	9 Hunting Meadow Ct.	"
Tony Bassetti	Tony Bassetti	8 Hunting Meadow Ct.	"
Lois Bassetti	Lois Bassetti	"	"
Tony "	child	"	"
Paul "	child	"	"
Lucy HARM	Lucy Harm	"	"
R.J. COLANTONI	R.J. Colantoni	6 HUNTING MEADOW CT	"
Marianne Colantoni	Marianne Colantoni	"	"
Barbara Colantoni	Barbara Colantoni	"	"
STEPHEN COLANTONI	Stephen Colantoni	"	"
JOSEPH COLANTONI	CHILD	"	"
MARK COLANTONI	CHILD	"	"
Judy Suckno	Judy Suckno	4 Hunting Meadow Ct.	"
Lee Suckno	"	"	"
Adam Suckno	child	"	"
Samantha Suckno	"	"	"

NAME (print)SIGNATUREADDRESSTELEPHONE

Vanessa Albarese	Vanessa Albarese	4 Hunting Meadow Ct	
Kathleen Brink	Kathleen Brink	66 Mt. Hope Road	
DAVID BRINK	David Brink	66 Mt. Hope Road	
DAVID ANTHONY BRINK	David A Brink	66 Mt. Hope Road	
William J Stopa	William J Stopa	77 Mt Hope Road	
Lollie Stopa	Lollie Stopa	77 Mt Hope Road	
Jonathan Stopa	Jonathan Stopa	77 Mt Hope Road	
Charles Sestak	Charles Sestak	92 Mt Hope Rd.	
Andrea Sestak	SANDRA SESTAK	92 MT. HOPE RD	627-9291
Thomas J Weaver Jr.	Thomas J Weaver Jr.	71 Mt. Hope Rd.	627-9448
Carolyn Weaver	Carolyn Weaver	71 Mt. Hope Rd	627-9448
Thomas Weaver Sr	Thomas Weaver Sr	71 Mt. Hope Rd	627-9448
Anita Uniasz	Anita Uniasz	70 Mt Hope Rd	627-7569
Stanley Uniasz	Stanley Uniasz	70 Mt. Hope Rd.	627-7569
Alysha Uniasz	Alysha Uniasz	70 Mt. Hope Rd.	627-7569
Alyson Uniasz	Alyson Uniasz	70 Mt. Hope Rd	627-7569
Kelly Uniasz	Kelly Uniasz	70 Mt Hope Rd	627-7569
Coral McMahon	Coral McMahon	100 Mt. Hope Rd	627-5459
William McMahon	William McMahon	" "	" "
Terence P. McMahon	Terence P. McMahon	" "	" "
Quincy Thompson	Quincy Thompson	102 MT. HOPE RD.	627-2274
Bill Thompson	Bill Thompson	" "	" "
Neddie Eaton	Neddie Eaton	" "	" "
William Eaton	William Eaton	" "	" "
FRANK Zulli	FRANK Zulli	7 Hunting Meadow Ct.	
Alicia Zulli	Alicia Zulli	✓	✓
Ryan Zulli	Ryan Zulli	✓	✓
Melissa Zulli	Melissa Zulli	✓	✓

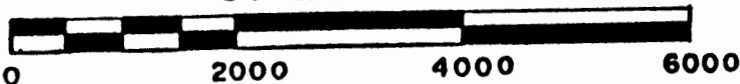
86X

NAME(print)	SIGNATURE	ADDRESS	TELEPHONE
Virginia Bissig	Virginia Bissig	5 Hunting Meadow Ct	
Dennis Bissig	Dennis Bissig	" "	
ROBERT S. GALIOLA	Robert S. Galiola	90 MT. HOPE RD ROCKAWAY NJ	
Luis A. Rodriguez	Luis A. Rodriguez	86 mt. Hope Rd.	
Guissell Rodriguez	Guissell Rodriguez	86 mt. Hope Rd.	
Luis Rodriguez	Child	" "	
Daniel Rodriguez	Child	" "	
Ardis Rodriguez	Child	" "	
Jim Turkowsky	Jim Turkowsky	68 MT Hope Rd Rockaway NJ	
SAB Turkowsky	Susan Turkowsky	" " " "	
KAREN Turkowsky	Child	" " " "	
LISA Turkowsky	Child	" " " "	



## KEY MAP

SCALE 1" = 2000'



Blue = existing wall

Red = needed wall

to dampen vibrations  
to mud effect.

Black = Rochaway Muni Complex - Limb Factory, Police, Offices

60'

INSPECTION PORT  
4" DIA. PERF. P.V.C. SCHED 20  
WITH SCREW PLUGS, 1" DIA.  
CORNER EXTENDING DOWN TO  
THE LEVEL OF INFILTRATION.

FINISHED GRADE

88X

980

Amy E. Melick  
The Assembly Transportation and Communications  
Committee  
CN 068  
Trenton, N.J. 08625

Dear Ms. Melick:

I am writing this letter with regards to the highway noise we are experiencing in our town.

I have been a Riverdale resident for the past 36 years and live on a quiet dead end street. The noise from the trucks combined with the noise from the Riverdale quarry have resulted in many "sleepless" nights.

I am sure my fellow town residents share the same feelings.

I appreciate the convenience of Route 287, however the highway noise pollution I can do without!

I hope that you will consider this appeal for noise barriers and that this request will not be taken lightly, or end up in someone's "round"

53 Beechwood Road  
Florham Park, NJ 07931  
September 23, 1994

Mr. Alex DeCroce, Chairman  
Assembly Transportation  
and Communications Committee  
101 Gibraltar Drive, Suite 2-D  
Morris Plains, NJ 07950

Dear Mr. DeCroce:

We are unable to attend the meeting regarding noise barriers to be held this evening at the Municipal Building of Florham Park.

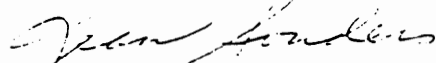
We do, however, wish to make known our dissatisfaction with the noise barrier currently installed. We feel that the wall should have been extended to our side at least even with the opposite side. Having a wall on the far side of the road and not on the opposite is causing "bounce back" noise in our area.

For DOT to say their testing shows a level of noise only slightly higher than before the opening of the road is preposterous. We expected that once the highway opened we would get used to the hum of traffic. What we are experiencing is a constant roar. We are unable to sleep with the windows open or to hold a conversation in the backyard without shouting. An energy adviser from PSE&G (who lives in Jersey City) commented to my neighbors lovely backyard (she lives at 67), but remarked that it was a shame it is spoiled by the loud noise coming from Route 24.


We recently had a relative visiting overnight who got up out of bed to see if anyone was injured in the "accident." Of course, to someone not familiar with the sound of the off-loaded trucks going over the bridge, it would sound like a car accident.

We hope that you will do everything possible to see that the current noise barrier is extended.

Very truly yours,



Jean Souders



Robert Souders

90X

136 Rosedale Avenue  
Madison, N.J. 07940  
September 28, 1994

Assemblyman C. Lee DeChoe  
Chairman Assembly Transportation  
and Communications Committee

Re: Support of Noise  
Barriers

Sir:

I have resided at 136 Rosedale Ave since June, 1950. My home is two blocks south of the Greenwood Avenue bridge over the new RT 24 in Madison.

Noise barriers were not originally erected on the Madison side on the stretch from the overpass to behind the soccer field and the Madison Pool because there is a wooded strip of land between our homes and the highway.

However, all the trees in this strip are deciduous so for 6 months of the year, they afford no noise protection.

Also, the traffic level noise has steadily increased in the past year. All day it is a constant hum of traffic which accelerates during the rush hours. But from midnight to 4 AM, heavy trucks go through and the windows on my house rattle from the vibration. Sleep is fitful.

I would add my plea to favor the erection of noise barriers on the Madison side.

Sincerely yours.

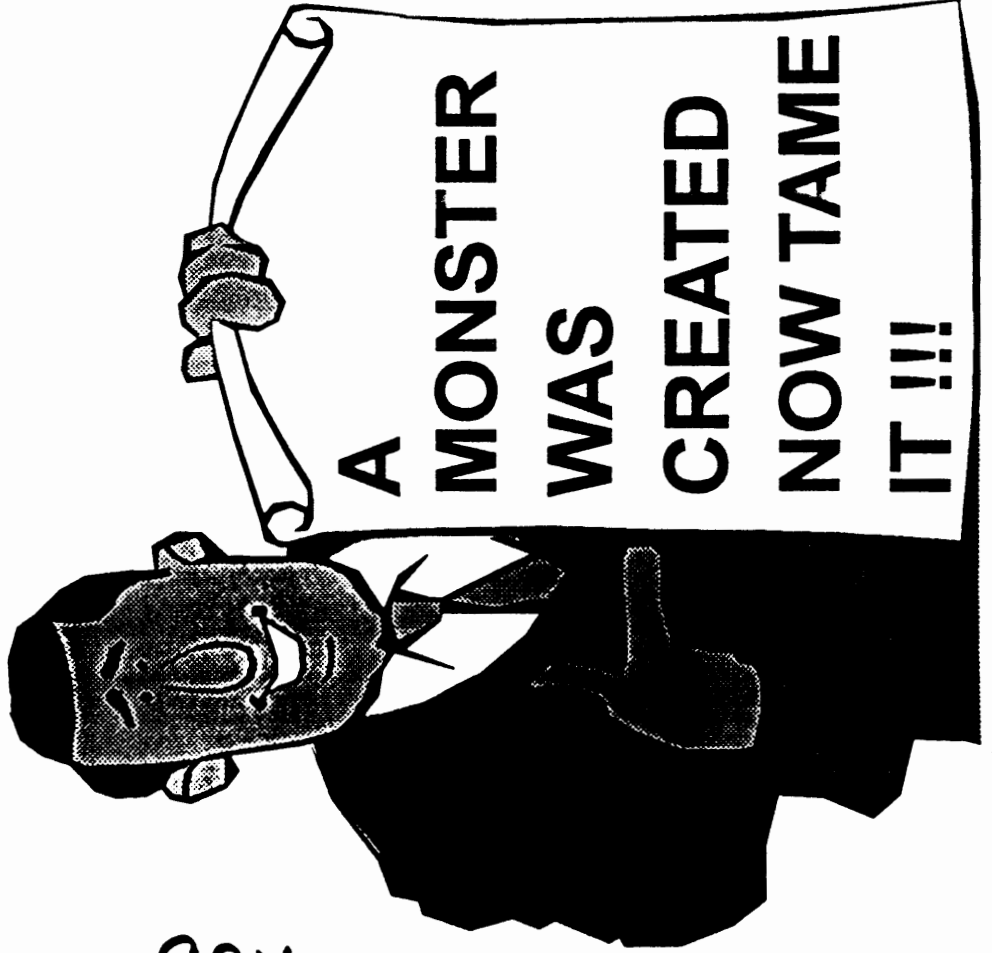
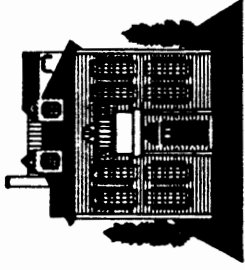
Peterson E. Dow



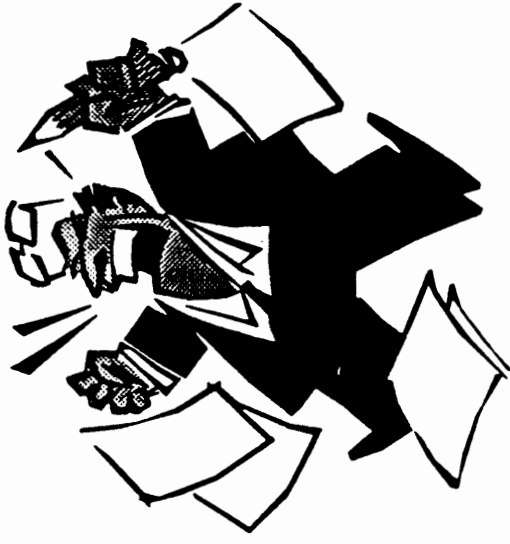
# HELP !!! PETITION

PRECONSTRUCTION TESTING ??

REDUCE TAXES !!

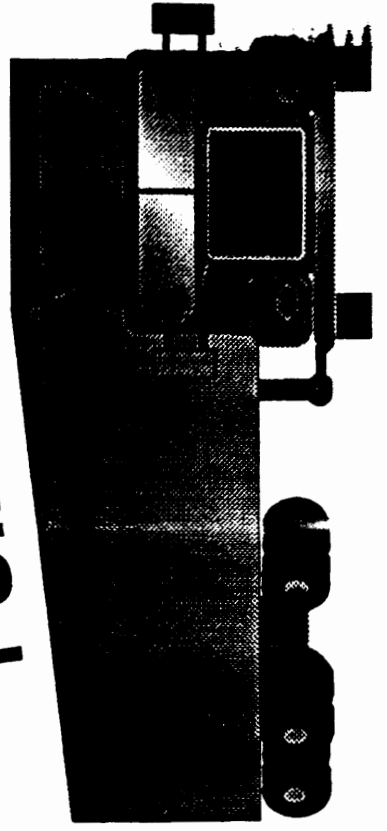


A  
MONSTER  
WAS  
CREATED  
NOW TAME  
IT !!!



NOISE !!!

FUMES !!!



TO: Mayor Dale Anderson,  
The Department of Transportation

*\*This represents the people  
who were home, when this was  
walked around the neighborhood*

As a community, the information we were provided on the level of noise which would be produced by Route 24 was incorrect and misleading.

Before the road was opened, we had asked for sound barriers and we were assured it was not necessary. We feel that DOT should have known what the noise level would be since this should have been part of their job knowledge, but obviously their projections were incorrect.

We cannot open our windows or take a walk outside without hearing the roar of the constant trucks and cars day and night. Even walking down Townsend Drive one has to always look around thinking that a car is heading their way only to realize it's the Route 24 noise. We also feel the value and selling ability of our homes has decreased because of this highway.

At this point, it is necessary to stand together and demand that something be done to eliminate the constant noise as soon as possible. More barriers should be installed properly (higher walls) all along Townsend Drive and other streets that are affected, so we can try to recapture some of the serenity that we once had.

We must also contend with Airport traffic noise and the new Gas Pipeline (Texas Eastern) dangers. How often is this pipeline checked and what affect does the Route 24 heavy traffic have on it (if any pipe movement, etc. from the vibrations since this pipe is right near the highway and our back yards).

With all the above, we feel that our taxes should reflect the situation we are currently in.

<i>Linda &amp; Alan Wargo</i>	<i>11 Townsend Drive</i>
<i>Miss Gantley</i>	<i>16 TOWNSEND DRIVE</i>
<i>Chuck Anderson</i>	<i>21 Townsend Drive</i>
<i>J. C. F. Baker</i>	<i>141 TOWNSEND DRIVE</i>
<i>Brothy M. McChinley</i>	<i>9 Townsend Drive</i>
<i>Theresa Ann Peluso</i>	<i>13 Townsend Dr.</i>
<i>Gene C. Poffler</i>	<i>3 Townsend Dr., Ft. PK</i>
<i>J. Poffler</i>	<i>6 Townsend Dr.</i>
<i>Barbara L. Cramer</i>	<i>10 Townsend Drive</i>
<i>Donna O. Reddy</i>	<i>10 Townsend Drive</i>
<i>Margaret Cramer</i>	<i>10 Townsend Drive</i>
<i>Carol Arends</i>	<i>17 Townsend Dr.</i>
<i>Kandolph J. Arends</i>	<i>17 Townsend Dr.</i>
<i>Heborah and Kevin Bradley</i>	<i>15 Townsend Drive</i>

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The Department of Transportation

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Marciano & Howard Imhoff	26 Townsend Dr.
Karin A. Luke	28 Townsend Dr.
Beatrice Backus	28 Townsend Dr.
Frederick H. Nauman	18 TOWNSEND DR.
Alma Pancharas	1 Old Mill Rd.
John Fleming	2 Old Mill Rd.
Charles R. Andrews	1 KENWOOD LANE
Harry Strand	4 Kenwood Lane
Ray & Connie Debus	3 Kenwood Lane
April + Don Salom	29 Townsend Dr.
Edith Hoffman	34 Townsend Dr.
Karin Klavel	38 Townsend Dr.
Joseph R. Ritz	43 Townsend Dr.
Elizabeth Ritz	43 Townsend Dr.

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The Department of Transportation

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*George E. Mikula*

47

*George E. Mikula*

47

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*Tara Walsh 5 Kenwood Ln. Apt. PK*  
*Steve & Annemarie Landishman 8 Kenwood Lane 7P*

TO: Mayor Dale Anderson,  
The Department of Transportation

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With all the above, we feel that our taxes should reflect the situation we are currently in.

Mrs. Mary Dwyer 4 Old Mill Rd.



*Township of*  
*Pequannock*  
530 NEWARK-POMPTON TURNPIKE  
POMPTON PLAINS, N.J. 07444

(201) 835-5700

September 28, 1994

The Honorable Alex DeCroce, Chairman  
Assembly Transportation and  
Communications Committee  
101 Gibraltar Drive, Suite 2-D  
Morris Plains, NJ 07950

Dear Assemblyman DeCroce:

My name is W. Jay Wanczyk, Assistant Township Manager for the Township of Pequannock, and I am submitting this testimony concerning highway noise barriers on behalf of the governing body.

The Township of Pequannock has a long history of concern on the I-287 project from its inception. Initially, the Township instituted suit in an effort to de-designate the highway construction funds towards other regional transportation projects, or failing in that effort, reroute the highway along existing rights-of-way. As the project moved forward and an alignment was formalized, the Township re-focused its efforts towards mitigation of what it was believed to be two of the highways most objectionable impacts - storm water quality and management and noise.

The Township's concern that highway surface storm water runoff would originally be directed directly into our well-field aquifer was addressed during design by the rerouting and piping of storm water to a point significantly downstream of the delineated recharge area.

The concern regarding noise was initially addressed by a DOT Noise Study which recommended noise barriers along the highway's eastern boundary through the Township as well as the Borough of Kinnelon which overlooks the entire Pompton Valley and the Township. The one exception was that there would be no noise barrier constructed over the Mountain Avenue overpass as it was communicated that the technology did not exist at that time to construct such a barrier. The report also stated that the highway alignment was slightly shifted to the west in some areas to permit the construction of the sound barriers.

In a letter dated July 13, 1987, Jack Freidenrich, Assistant Commissioner, Engineering and Operations, New Jersey Department of Transportation, indicated that the report was finalized with respect to the Department's noise mitigation and proposal. In addition, he stated that the mitigation

98X

The Honorable Alex DeCroce  
September 28, 1994

proposal was approved by the Federal Highway Administration and was incorporated into the design plans. At that point, the Township was satisfied that its noise mitigation concerns were largely addressed, with the exception of the lack of a barrier on the Mountain Avenue overpass, which the Township was led to believe was not possible.

The Township was somewhat dismayed to later learn, during the active construction process, that an additional 410+ feet of noise barrier was eliminated from a location immediately north of the Mountain Avenue Bridge, thus leaving almost 1/6 of a mile of the highway without a noise barrier. Following this realization, the Township and at least one adjacent resident began a series of correspondence with NJDOT the result being that the issue is still unresolved and with the highway now in operation for almost one year.

At first, NJDOT responded that a gabion wall could not be constructed north of Mountain Avenue because of right-of-way constraints involving what is termed an historic property and that a noise barrier at this location was determined not to be cost effective. First, the Township was not insisting that a gabion sound barrier be constructed at that immediate location. In fact, it was understood that a concrete wall type of barrier and not a gabion, was planned for that spot which would fit in the available space (remember that the DOT Noise Study reflected that the highway alignment was shifted to allow construction of the noise barriers). Second, there does not seem to be a particular reason which would make this barrier, immediately above homes on Mountain Avenue, not cost-effective while adjacent barriers immediately above fields and woodlands, cost-effective.

A later correspondence from NJDOT expanded its concerns for the barn and seemed to reach the somewhat curious conclusion that the barn was best protected by not having the sound barrier constructed within the right-of-way, well behind and above the barn and adjacent house. In this same letter, NJDOT did not address the resultant noise impacts of the Township neighborhoods immediately below this now missing sound barrier.

Well before alignment and design of the highway, a portion of the Township, immediately below where the highway was ultimately aligned, was zoned for construction of over 600 multi-family housing units, both town houses and apartments. This was one of the Township's two remaining large vacant tracts which was later incorporated into a "builder's remedy" development to meet a significant portion of the municipality's Mt. Laurel Housing Obligation. Construction of this development, now known as The Glens, roughly coincided with construction of I-287.



The Honorable Alex DeCroce  
September 28, 1994

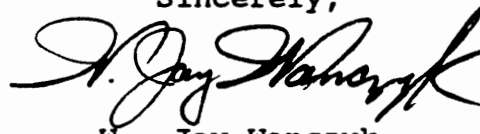
The subsequent opening of I-287 with unmitigated noise reflected through the almost one-sixth of a mile opening has led to a grass-roots effort to communicate the need for construction of the missing noise barrier segment. A recent petition, a copy of which is attached, indicates that residents of Mountain Avenue, The Glens and Keech Briar Lane are greatly affected by the lack of a barrier and are seeking relief.

In endorsing this request, the Township recognizes that there is a significant cost for construction of these barriers from the Federal and State Highway Trust Funds. But it is also recognized that there is an obligation and responsibility for builders and users of that highway to mitigate the impact to the residents who are daily paying the cost of the disruption of the quality of their life by the "overwhelming magnitude of noise" from I-287. It is also recognized that some highway travelers do not like the monotonous appearance of noise barriers while traveling on the highway.

We ask that both you and they consider the quality of life of those who now are faced with the impact of the highway operating above our residents' homes and condos twenty-four hours a day, not just during their commute.

Thank you and the Committee for hearing the Township's concerns.

Sincerely,



W. Jay Wanczyk  
Assistant Township Manager

WJW/apr  
Attachment

cc: Township Council

100X

Date: March 31, 1994

From: Jan Vanderhoff  
193 Mountain Ave.  
Pompton Plains, N.J.  
07444

Subject: Mountain Ave. bridge, including 410 feet north of  
bridge noise barrier. Also existing wall north of  
bridge be revaluated for it's effectiveness.

As we all are aware of the noise barrier has been an issue for  
almost 5 years. Now with I-287 almost finished the noise is  
greatly affecting area residences. AS we understand it Mr. Ken  
Afferton, assistant Commissioner for Design and Right of Way  
with DOT is "looking into" a material for the barrier.

Seven years ago the promise of a barrier was there ( See attached ).  
Seven years later we hear "it is being looked into". We ask that  
a solution be sought to the promise of the proposed barrier, seven  
years ago, and the existing wall north of the bridge be revaluated  
for it's effectiveness.

The enclosed petition only representes the residents that I-287  
have greatly inpacted. We have found other area in town to also  
have been inpacted to some degree. The residents on the petition  
hope to have your support in this matter that is of great importance  
to us. Your support will be greatly appreciated and await to hear  
of it.

Very truly yours,

*Jan Vanderhoff*

Jan Vanderhoff and  
area residents.

cc: Comm.of DOT/ F. Wilson  
K. Afferton  
Township Manager/ T. Kane  
Town Council of Peq.  
Peq. Environmental Comm.  
Supervising Engineer/ A. Silber

101X

We the residents in the vicinity of Mountain Ave., are greatly affected by the absence of a noise barrier on the Mountain Ave. bridge and 410 feet north of the bridge. We ask that a solution be sought to the overwhelming magnitude of noise, and that the existing wall north of the bridge be reevaluated for it's effectiveness. We are asking all parties listed on the cover letter for their support.

NAME

ADDRESS

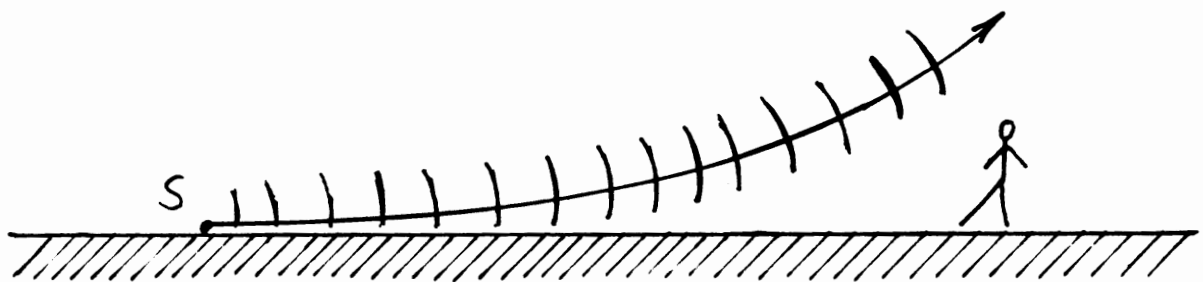
# IN FAMILY

Mr. & Mrs. Jay Vanderhoff	193 Mountain	4
Richard - Marilyn Gionda	213 Mountain	6
Ken & Joan Chapp	200 Mountain	5
James A. Harris	207 Mt Ave	1
David Kellitt	186 Mountain Ave.	2
Mr & Mrs Kapotes	3 Mountain Ridge	3
Dr & Mrs Dufon	7 Mountain Ridge	3
Mr & Mrs J. H. Filippelli	170 Mountain Ave.	2
Mr & Mrs. Roman	163 Mountain Ave	4
MR & MRS DAVE Timoney	151 MOUNTAIN AVE	4
Mrs C. Mc Cune	154 Mountain Ave	1
Harold Belger	134 Mountain Ave.	1
Robert Wilson	134 Mountain Ave	1
Esperanza C. Arevalo	144 Mountain Ave	6
Cheryl O. Landolt	183 Mountain Ave -	5
John Landolt	183 Mountain Ave	
MR & MRS E. STEPHEN PERCY	150 MOUNTAIN AVE.	2
Mr & Mrs Louis Piccoli	180 Mountain Ave	2
Mr & Mrs L. J. Amico	203 Mountain Ave	2
Sue Remus	203 Mountain Ave	1
Luan J. J. J. J.	101 13th St & 4th Ave.	1
Richard F. F.	231 Mountain Ave	5

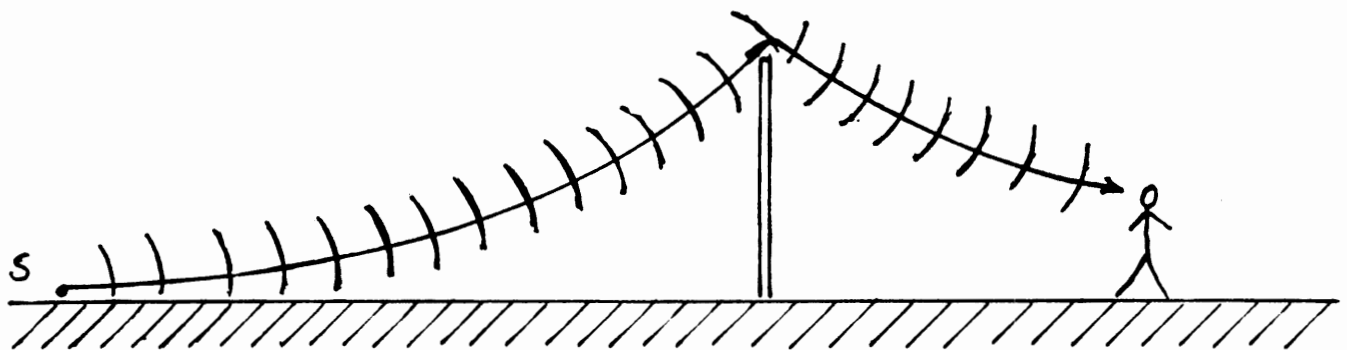
<u>NAME</u>	<u>ADDRESS</u>	<u># IN FAMILY</u>
12/11 K P N N	4004 Tudor Dr. P.P.	2
GERARD AMETI	4101 TUDOR DRIVE	1
TOM ACKERHOCK	4102 Tudor Dr.	2
Vince Pasquino	4103 Tudor Dr.	4
ANN DEANS	4203 TUDOR DRIVE	2
John Joyce	4205 TUDOR DRIVE	2
MAETRA BROPHY	4204 TUDOR DRIVE	1
MC E. M. C. G. T. T.	4201 TUDOR DR.	2
W. E. T. T.	3901 TUDOR DR	2
H. K. D. G.	4301 Tudor DRIVE	2
W. E. T. T.	4401 Tudor Drive	2
John B. Johnson	4402 Tudor Drive	2
Jessie B. Johnson	5 Mountain Ridge	2
Ruth B. Johnson	5 MOUNTAIN RIDGE	1
S. B. K. T.	4000 Tudor drive	2
10 S. K. H. W. G.	4000 Tudor Drive	2
J. T. T. T.	4303 Tudor Drive	13
S. B. T. T.	4305 Tudor Drive	2
Betsy T. T.	4403 TUCKER DRIVE	1
M. T. T. T.	4404 Tudor Drive	2
Sylvia Chai	6 Keech-Briar Ln. Pompton P.	9
Frank T. T. T.	10 Keech Briar Ln " "	2
Joanne M. T. T. T.	12 Keech Briar Lane " "	2
Karen T. T. T.	14 Keech Briar Lane " "	6
L. T. T. T.	14 Keech Briar Lane " "	-
J. T. T. T.	" " "	-
Suzie Mack	16 Keech Briar Lane	4

103X

"IN THE NORMAL STATE OF THE ATMOSPHERE A RAY, WHICH STARTS HORIZONTALLY, TURNS GRADUALLY UPWARDS, AND AT A SUFFICIENT DISTANCE PASSES OVER THE HEAD OF AN OBSERVER WHOSE STATION IS AT THE SAME LEVEL AS THE SOURCE."



"IF BOTH THE OBSERVER AND THE SOURCE BE ON THE SURFACE,  
THERE IS NO DIRECT RAY, AND THE SOUND IS HEARD, IF AT  
ALL, BY MEANS OF DIFFRACTION."



ASSEMBLYMAN WILLIAM J. PASCRELL, JR.  
PUBLIC HEARING ON SOUND BARRIERS  
ASSEMBLY TRANSPORTATION AND COMMUNICATIONS COMMITTEE  
SEPTEMBER 28, 1994

THANK YOU MR. CHAIRMAN AND MEMBERS OF THE ASSEMBLY TRANSPORTATION AND COMMUNICATIONS COMMITTEES FOR ALLOWING ME THE OPPORTUNITY TO ADDRESS THIS PUBLIC HEARING. SOUND BARRIERS ARE AN IMPORTANT ISSUE TO MANY RESIDENTS OF THE STATE INCLUDING THOSE WHO LIVE IN PASSAIC COUNTY. PUBLIC HEARINGS SUCH AS THIS PROVIDE A MUCH NEEDED FORUM FOR CITIZENS TO AIR THEIR CONCERNS ON THE ISSUE OF NOISE REDUCTION. I HAVE LONG BEEN AN ADVOCATE OF THE USE OF SOUND BARRIERS AS A WAY TO REDUCE RESIDENTIAL EXPOSURE TO HIGHWAY TRAFFIC NOISE.

SEVERAL YEARS AGO, I INTRODUCED A RESOLUTION CALLING ON THE DEPARTMENT OF TRANSPORTATION TO INVESTIGATE THE POSSIBILITY OF PLACING SOUND BARRIERS ALONG RT. 80. I KNOW THAT THE DEPARTMENT HAS WORKED DILIGENTLY ON ALL THE NECESSARY PROCEDURES THAT NEED TO BE COMPLETED BEFORE SOUND BARRIERS CAN BE INSTALLED. I HOPE THAT THE DEPARTMENT CAN EXPEDITE THIS PROCESS SO THAT PASSAIC COUNTY RESIDENTS ARE ALLEVIATED OF THE HIGHWAY NOISE FROM RT. 80.

THE ROUTE 80 PROJECT PRESENTS A CLEAR EXAMPLE OF THE NEED FOR NOISE REDUCTION IN URBAN AS WELL AS SUBURBAN REGIONS. WE MUST NOT PLACE ALL OF THESE SOUND BARRIERS IN SUBURBAN DISTRICTS. THE CITIZENS OF PATERSON ARE AFFECTED BY THE NOISE FROM ROUTE 80 AS MUCH AS THOSE PEOPLE LIVING IN SUBURBAN AREAS. FOR EXAMPLE, THE RESIDENTS OF THE DEAN MCNULTY BUILDING LIVE CLOSE ENOUGH TO ROUTE 80 THAT THEY CAN VIRTUALLY PASS SUGAR TO MOTORISTS. THEY HAVE AS MUCH RIGHT TO REDUCED HIGHWAY NOISE AS MORE AFFLUENT STATE RESIDENTS. THE BENEFITS OF NOISE REDUCTIONS SHOULD BE SHARED BY ALL NEW JERSEY RESIDENTS. ULTIMATELY, WE ALL HELP FUND THE PROGRAM, WE ALL SHOULD BENEFIT FROM IT.

AGAIN, THANK YOU MR. CHAIRMAN AND MEMBERS OF THE TRANSPORTATION COMMITTEE FOR ALLOWING ME TO TESTIFY ON THIS SUBJECT. I HOPE THAT THIS HEARING MARKS THE BEGINNING OF A NEW DRIVE TO BUILD SOUND BARRIERS IN ALL AREAS OF THE STATE. THIS PROGRAM HAS PROVIDED GREAT BENEFITS TO NEW JERSEY RESIDENTS.

# Jacqueline Kruger

Dear Mr. De Croon:

Those properties along Brooklake Road (EVEN House Numbers) from the NEW RT. 24 to the MADISON LINE ARE ON EVEN/LEVEL GRADE WITH THE ROADWAY. MANY OF THE TREES HAVE BEEN CLEARED TO CONSTRUCT THE TRI-BOROUGH ROAD AND BRIDGE. ALSO, MUCH OF THE LAND IS CLEARED FOR THE PSE&G AND TEXAS GAS LINE EASEMENTS. THE NOISE IN OUR <sup>REAR</sup> YARDS IS EXCESSIVE FROM THE NEW RT. 24 AND THE NOISE IN OUR FRONT YARDS IS EXCESSIVE FROM THE INCREASED TRUCK USE AND GENERAL TRAFFIC SINCE THE OPENING OF THE HIGHWAY.

WE WOULD LIKE SOME RELIEF OF THE NOISE BY INSTALLING SOUND BARRIERS MOUNDING AND/OR A TREE BUFFER ALONG RT. 24 FROM THE TRI-BOROUGH BRIDGE TO BROOKLAKE RD. THIS WILL GIVE US BACK OUR REAR YARD BACK-Q'S. AS FOR THE NOISE ON BROOKLAKE RD., WE HAVE REQUESTED A TRAFFIC INVESTIGATION BE DONE TO SUPPORT A speed reduction to 25 MPH TO BE CONSISTENT WITH THE BORO OF MADISON AND WITH THAT stretch OF BROOKLAKE FROM RIDGEBURY TO CATHEDRAL. THIS WILL GIVE US BACK THE SENSE OF LIVING IN A RESIDENTIAL ZONE.

PLEASE EXPLAIN WHY SO MUCH CONSIDERATION IS GIVEN TO THE MOTORIST RATHER THAN THE SAFETY OF THE RESIDENTS ALONG THE ROADWAY. PLEASE RESPOND.

SINCERELY, J. Kruger



# Raymond E. Liguori

My home is adjacent to I-287. I live there with my wife and 3 children, ages 7, 5 and 2. Each night my 2 year old is awakened by the sound of a truck barreling down the highway. He in turn wakes the rest of us up. Every night.

The volume of traffic has increased significantly since I-287 was connected to ~~I-287~~ the portion of I-287 that leads to New York.

We are currently exposed to two northbound lanes. If the expansion is completed, the median strip of trees (7200 feet) will be destroyed and we will be exposed to 6 lanes of traffic (3 North & 3 South). This is completely unacceptable.

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STEVEN REED

As a Chatham resident living behind the Minisink Club, I have obtained a petition of neighbors who join me in requesting the 1/4 mile extension of sound barriers along the east bound Rt 24 beginning by the Minisink Club to the JFK Pkwy exit.

The highway noise is very loud and continuous. We are forced to keep our windows closed. Trucks going over bumps sound like thunder. This is unacceptable.  
Thank you. *Steve Reed*

Donna Sharpe

I live next to an existing  
Sound barrier on Rt. 286 East

I am concerned with "post-  
Construction" studies (if any  
are done!)

Karen J. Walsh

My family & neighbors suffer from the Highway Noise intrusion from I 287. It directly affects the quality of life. We need better noise abatement measures there proposing to move an existing sound barrier 10 feet closer than already located. The traffic mostly heavy truck traffic which 80-85 DBA, has greatly increased since the opening ~~on~~ of the link (Maback) to the N.Y. State Thruway. The truck noise is offensive and disturbs the normal sleep patterns. It is detrimental to our health. The Federal Regs. do not consider the disturbance to people's sleep, they only base the criteria on speech <sup>intelligibility</sup> ~~intelligible~~ <sup>interference</sup> ~~interruption~~ on a ground level basis. This <sup>noise</sup> ~~need~~ <sup>is</sup> ~~be~~ <sup>change</sup> ~~change~~

Matthew D. Walsh

I live on land I'll be in in a new road to  
Route 297 just below the South Street exit.  
The DOT is planning to move the wall 10 feet  
closer to my home & the homes in my neigh-  
hood. I would like to ask that if you  
are going to move the wall that you increase  
the height of the wall like the DOT has  
done in Parsippany where the wall is about  
10 feet higher. I would also like to know why  
the level 67 dBA for residences is higher <sup>than</sup> the ~~level~~ level  
for Wild life preserve ~~is~~ is at ~~57~~ 57 dBA.  
I would also like to state that the DOT  
did a study and that I was at 64 dBA and that  
when they move the wall closer it will be  
higher.

