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UNITED STATES OF AMERICA

DEPARTMENT OF TRANSPORTATION

Stenographic Transcript Of

HEARINGS

IN THE MATTER OF: PUBLIC HEARING ON TRANSBUS

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U.S. DEPARTMENT OF TRANSPORTATION

PUBLIC HEARING ON TRANSBUS

Tuesday, March 15, 1977

The above-entitled matter came on for hearing, pursuant to notice, at 9:38 a.m.

BEFORE:

BROCK ADAMS, Secretary of Transportation

MORTIMER L. DOWNEY, III, Deputy Under Secretary

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PROCEEDINGS

SECRETARY ADAMS: Good morning. I thought we should start promptly so that we could make the best use of our time. I am very pleased by the response that we have this morning, and I am delighted at the turnout.

Now, the transit bus has never been a very glamorous animal, but it really is the work horse of our mass transportation system in the United States, and as our dependence on this grows, we find that it is more and more necessary that we produce a bus that has greater mobility and added comfort for more people.

We need a bus that meets the special needs of the elderly and the handicapped, and one that invites, not denies, their ridership. We need a bus that motor coach manufacturers can produce competitively and at a reasonable price.

We need a bus that cities and communities can buy in confidence and use in pride. To meet all of these goals, we need a practical federal transit bus policy and workable regulations for bus design and development.

I look to this hearing to determine what these should be. Beyond these basic questions, there are other issues to be addressed during this hearing, and these will be some of the specifics that I hope the various witnesses will address, such as, the proper floor height for a new bus; what equipment should be specified as essential or as optional to accommodate.

handicapped persons, and what additional research and development efforts, if any, are advisable.

Finally, I think we need to reach a clear understanding of what the government's role should be which includes not only work in the research and development area, but in financing the eventual production of the Transbus.

We have a very competent bus manufacturing capability in this country as well as abroad, and I believe competition as well as innovation must be encouraged. These are difficult issues to be debated and decided, but the matter must be resolved if bus production is to keep pace with demand and with our objective of improved public transportation.

I do not expect consensus today, but I can assure you a fair and impartial hearing. I do not propose to be bound by past commitments or biased by preconceived notions. Your advice and comments will be given full and careful consideration.

I regret that I cannot spend the full day with you. Mort Downey, the Department's Deputy Under Secretary, is one of my principal advisers on this subject and is experienced in transit issues in general. He will preside in my stead.

As I said at the outset, I appreciate the participation of every company, organization and individual represented here today. I believe this is an excellent means of getting public input to a very important transportation decision, and I anticipate a very productive hearing.

I might state to some of you that do not know me and may have watched with some interest the decision-making process in the Department recently, we do not allow decisions to pile up, and we do not think that study and planning for indefinite periods makes things better.

Decisions will be reached. We will proceed as expeditiously as possible. I was required in this particular instance because there had been a series of conflicting performance standards put out, a series of law suits filed, a great deal of unhappiness with those to whom the standards were directed, to simply say we will allow all three of the existing bus designs to be used on an interim basis.

That will continue until at least May 27th and it may continue thereafter. I can assure you I will reach a decision on what should be the bus of the future in terms of its specifications by May 27th and we will move from there.

As the President says, and as all of us believe, we may make mistakes in this. None of us is perfect, but I think it is essential for all parties involved that we, one, make decisions; second, that we make them at openly arrived at meetings such as this one; that we make them promptly, and thereafter we implement them. So, that is what we are in the process of doing.

We are trying to be as fair as possible to all of the groups that are involved. As I said at the beginning of my

remarks, I deeply appreciate the attendance of all of you here in what is a difficult matter, but not insoluble, and that we shall persevere and we shall move ahead.

Now, I am going to turn the proceedings over to Mort and Mort, I wish you well in them, and my decision will be based upon the information that will be elicited from all of you as well as the printed documents and the public information that has been submitted to the Department on this issue.

Thank you very much for being here this morning, and, Mort, it is in your good hands.

MR. DOWNEY: Thank you, Mr. Secretary.

As the Secretary indicated, I will be the presiding officer for this hearing. With me this morning are Bill Kutzke from the General Counsel's Office, George Pastor from UMTA, and Dick Klem from the Office of the Assistant Secretary for Policy.

At the table to my left are Connie Abrams of the General Counsel's Office, and Bob Batchelder of UMTA: they are at the table at my left and will manage the timing and other procedura aspects of the hearing. Any procedural questions should be directed to them.

I am anxious to get the hearing started, but I would like to spend just a moment reviewing the ground rules. Copies of the agenda have been made available to you as you came in the room this morning.

They indicate the order in which speakers will testify and the amount of time allotted to each speaker. Each speaker has previously been advised of the amount of time he or she will have including any sub-allotments that he or she wishes to make. If I ask questions of the speakers, the amount of time spent asking and answering the questions will not be subtracted from that speaker's allotted time. These are on my time.

Since I expect there will be questions, this means that the published agenda will not be strictly followed in terms of when presentations will begin. Speakers should therefore be alert as to when they are being called or are likely to be called.

When all but a minute of a speaker's allotted time is used up, a white light will be flashed in front of him and on this table. At the end of the remaining minute, a red light will be flashed and the speaker will be expected to terminate his or her remarks.

As you know, this proceeding is being recorded and transcripts will be prepared. Therefore, as you begin your testimony, please introduce yourself and the organization on whose behalf you appear.

Outside the room is a message table for calls which any of you may receive. Please check with the person at that table so that you will not miss any calls which come in for you. Finally, you will recall that in the Federal Register announcement

of this hearing, we indicated that written presentations will be accepted until April 1st from persons who are unable to testify today, or who wish to supplement their testimony.

On the distributed agenda you will find the address to which such material should be sent. I believe our first speaker is Mr. Robert Truxell of General Motors, and following Mr. Truxell will be Mr. Moss of AM General.

Mr. Truxell is recognized for 30 minutes.

STATEMENT OF MR. ROBERT TRUXELL,
VICE PRESIDENT, GENERAL MOTORS

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MR. TRUXELL: Thank you, Mr. Downey. My name is Robert W. Truxell. I am a Vice President of General Motors and General Manager of GMC Truck and Coach Division. With me at the table are Edward R. Stokel, our Division Director of Public Transportation, and Frederick W. Brady, Jr., chief engineer for coaches.

We appreciate this opportunity for discussion of the Transbus program and advanced bus designs. General Motors has a long history of commitment to improve public transportation. Our goal has been increased safety and comfort for all passengers including the elderly and handicapped.

Typical examples of GM's contributions to better transit include automatic transmissions; a kneeling device for easier boarding; the smoother ride of air suspension; sensitive door edges to prevent closure on passengers; special stairwell

lighting; grab rails and stanchions placed more helpfully, and a long list of other advances.

In this tradition, we launched a comprehensive program in 1964 to develop an entirely new bus design. The major element of that program was significantly greater accessibility, comfort and safety for all bus riders, with particular emphasis on the elderly and handicapped.

GM's RTX-bus design of 1968 evolved from that R&D program. The RTX was revolutionary and added major new features to improve public transportation. It was the first totally new bus design in many years. With the RTX, GM originated the low floor design.

The RTX program predated statutory requirements concerning accessibility of public transportation to disabled and elderly persons. Moreover, GM initiated the RTX program on its own and without the aid of federal funding.

RTX features included a low 22 inch floor; a kneeling system developed by GM to lower the floor another three inches; a fold-down step for easier boarding; a Braille busstop reader and tapping strip for the blind; and provisions for accommodating a wheelchair lift or ramp.

Other innovations included a gas turbine engine; an experimental automatic transmission; and an experimental braking system, the use of two rear axles to attain the stationary 22 inch floor height required an entirely new braking system.

The RTX was the first advanced design low floor bus and a forerunner of Transbus Furthermore, this laboratory on wheels met or exceeded virtually all of the major passenger-oriented design criteria proposed by the National Academy of Engineering.

GM was initially enthusiastic about the many new ideas incorporated in this experimental vehicle. However, subsequent testing and evaluation by experienced transit operators disclosed operating problems.

For example, the low floor required several unproven experimental systems and conponents, including axles, wheels, tires, brakes, and running gear. This meant questionable reliability.

There was also a significant weight penalty; anticipated maintenance costs were extremely high, and a greater number of parts, many of them critical, was required. In addition, seating capacity was greatly reduced. All of these difficulties were an outgrowth of the 22 inch floor height.

Because of these problems with the RTX, GM went back to the drawing boards and proofing grounds. Further development led to the RTS bus prototype of 1974, and later to the 1975 version of the RTS-2. It is this vehicle which is ready for production today.

Meanwhile, in 1971, UMTA initiated its own Transbus experimental design program. Transbus incorporated many of the

features originally developed by GM for the earlier RTX. GM was an active participant in the Transbus program. It is a valuable research project and we endorse its goals.

In fact, we have been pursuing the same goals for more than a decade. Transbus had six priority goals: speed to minimize journey-time; passenger comfort and safety; aesthetic appeal both inside and out; environmental adaptability; maintainability and reliability; economy from a life-cycle point of view.

Like the RTX, Transbus prototypes from all three manufacturers met the initial four goals, but fell short of the final two critical priority goals. Transit authorities questioned the maintainability, operational reliability and life-cycle economy of certain Transbus features. These difficulties related primarily to their low floor.

GM recognized it would require a long period of time to solve the engineering problems created by the RTX and Transbus floor height. However, by 1973, it had become apparent to GM that cities and transit operators urgently desired an advanced bus reflecting the practical state of the art and attainable within a reasonable time.

Accordingly, GM decided to build an advanced design bus, the RTS-2, which could be produced in a relatively short period, and which incorporated the workable innovations of RTX and Transbus while eliminating the quality and maintenance problems inherent in these prototypes.

The RTS is truly an advanced bus design. It incorporate the unique RTX and Transbus features which are feasible for operation today. It offers maximum accessibility for all bus riders, especially the elderly and handicapped, now feasible within the limits of current technology, operating practicality and cost effectiveness.

This all new bus design features a new, smoother riding independent front suspension; corrosion resistant stainless steel body construction; and rivet-free, graffiti-resistant exterior panels which are readily removable for quick repair.

Advances of great importance to the handicapped include the kneeling feature, which permits the RTS to be lowered about five inches for easier boarding; wall-mounted seats for unobstructed floors to prevent tripping; and a wheelchair lift. The lift is planned for RTS production installation beginning in February, 1978.

There has been a great confusion regarding desirable floor height. For example, the initial Transbus specifications called for a 17-inch floor. Subsequent Transbus policy stated 23 inches or lower in 1975 and 22 inches in 1976.

The RTS stationary floor height is now 32 inches. The kneeling feature developed by GM reduces it another five inches for an effective height of 27 inches. At this stage of bus technology, a substantial penalty in operating costs and efficiency would result from mandated further floor height

reductions before manufacturers are able to do so without compromising other major design elements.

On the other hand it would be counterproductive to restrict transit systems to current design buses with a 34-to-35 inch floor height while making them wait for necessary technological breakthroughs in tires, brakes, axles, and suspensions.

The present RTS effective 27 inch floor height is based on the realism of today's state of the art and practical tradeoffs. It offers the best of two worlds: It is high enough for necessary road clearance and maximum seating, and it is as low as we can get today for maximum passenger accessibility.

In all significant respects, except floor height, the RTS meets the Transbus goals. We are committed to making effective floor heights even lower. Today's RTS is not a static design; in fact, we have an intensive development program underway to reduce the effective floor height by another three inches down to 24 inches by next February.

This development, however,will require reasonable modifications to current Transbus and advanced design bus specifications. This is consistent with the goals of Transbus It is also consistent with our own commitment to provide technically feasible advanced design features while avoiding the problems defined by experienced transit authorities who evaluated the RTX and Transbus.

We are also researching the feasibility of a 22 inch

effective floor height for the RTS. A 22 inch effective floor height would require the development of new, small tires, which are presently unproven.

To sum up, the RTS now incorporates the best features of the original RTX and Transbus. We are committed to continued improvements consistent with the goals of Transbus. We believe the RTS offers significant advancements over any bus in service today.

We hope advanced designs offered by any manufacturer can compete in the marketplace, which has long awaited the introduction of new bus designs.

Turning to the new procurement procedures for advanced designed buses recently promulgated by the Secretary, we believe they are a significant step toward the Urban Mass Transportation Act's goal of providing improved public transportation.

The new procedure, we believe, rightly moves away from the lowest initial price serving as a sole basis of awards. We believe the price-only policy tended to hold vehicle quality and product innovation down to the lowest common denominator.

Under the new procedures, awards can now be made to the bus supplier offering the best overall value for the public dollar. This will permit recognition of the value of the superior new features available in advanced design buses.

The award basis of the new procedure, fairly implemented, would be consistent with the spirit of fairness and economy

underlying the federal procurement regulations. This will assist transit systems in obtaining more accessible and cost-effective buses to serve the riding public.

We must, however, express reservation concerning the provision for UMTA to establish the value of price offsets for state and local transit authorities to use in determining the lowest adjusted bid price.

As we have previously stated, we do not believe Congress intended the Urban Mass Transportation Act to deprive state and local governments of their legal rights, and, indeed, responsibility for making procurement determinations including the award of contracts.

Value evaluations vary from city to city reflecting different local operating conditions. Neither Washington officials nor any other as far removed from the scene can possibly have the necessary experience with local transit operations.

More importantly, if decisions on evaluation of equipment are to be sound, the authority for making such decisions should be with those who have continued responsibility for operating the vehicles, and who must pay the piper if mistakes are made.

This view is reinforced by the Uniform Administrative Requirements for Grant-in-Aid to State and Local Governments. These guidelines provide that the grantee is the responsible

authority for settlement and satisfaction of all contractural and administrative issues rising out of procurements, including source evaluation.

Accordingly, we recommend the procurement procedure be amended to return evaluation determinations to state and local transit authorities.

Finally, there must be some guarantee that the recently announced procurement procedure will remain in effect for a substantial period of time. If a decision to mandate an effective floor height lower than 24 inches were made on May 27th, the resources spent in producing advanced design buses would be largely wasted. Provision by DOT of some assurance of continuing ability to market currently existing advanced design buses is essential.

Let us now turn to the specific questions raised in the February 4 statement. Question A, should the Secretary, one, request, or two, encourage the use of Transbus specifications for all new transit buses purchased after a set date? We believe the Secretary should develop and encourage the use of functional performance goals.

This will permit manufacturers to work independently of as well as within the design concept of the Transbus program. In our view, the public will be served by better buses sooner by permitting each manufacturer to work within the framework of free competition.

The incentive for creative effort and innovation promises to produce a greater diversity of approaches than does the freezing of all manufacturers to a single government mandated design which absolutely forecloses competition.

As a matter of both general principal and practical engineering, mandating specific fixed designs should be avoided whenever possible. This is especially true in a case like Transbus where many of the Transbus prototype components are still experimental. They have not been adequately tested, nor are they available as safe, reliable production components. Moreover, standards that specify a particular design discourage innovation.

Question B: If Transbus is required, what should be the effective date of that requirement? We have already noted that we are opposed to mandating Transbus and that continuing provisions should be made for marketing current, advanced design buses so long as there is a market demand.

Nevertheless, if Transbus' effective floor height lower than 24 inches should be mandated, the effective date must await determination that such floor height is feasible and should allow ample lead time for implementation. Finally, any such mandate should not --

MR. DOWNEY: Do you know a specific time in mind even within some range of --

MR. TRUXELL: Yes. I would like to go on to say, you

know, we do not believe that the mandate should be accomplished in increments. In other words, it should not go from first to 24 inches stationary floor height, or effective floor height, I mean, and then on to 22 inch effective floor height.

We feel that there should be one specification and there should be adequate lead time to obtain whichever spec is chosen. In the case of the 24 inch effective floor height, I have stated that we could be ready with that bus for production in February 1978. To go on to 22 inches effective floor height would require an additional year. In either case, we ought to do that in one step to avoid repetitive retooling.

Question B-2: If Transbus is required, what should be the floor height? The floor height should be set at that level which offers easier access to all passengers without jeopardizing the integrity of overall vehicle design or operation, given the existing state of the art.

The controversy over floor height lies entirely in practical tradeoffs. As noted, the RTS will have an effective 24 inch floor next February. Every inch under that is extremely expensive. In deciding to go another inch or two under 24 inches, the marginal increased accessibility must be weighed against serious penalties.

For example, costs would be substantially increased, and there could be reductions in economical transit service under all operating conditions. Question B-3 --

MR. DOWNEY: Before you go off floor height, could I ask another question? All of your data that you are presenting is in terms of effective floor height?

MR. TRUXELL: That is correct.

MR. DOWNEY: Always including a kneeling feature?

MR. TRUXELL: Right. Our effective 22 inch floor would be a stationary 27 inch floor with a 5 inch kneel.

MR. DOWNEY: Do you have any experience to date with the use of a kneeling feature and whether this, in fact, is a practical way of achieving an effective floor height?

MR. TRUXELL: Yes, we have very much test experience on this feature.

MR. DOWNEY: Operating experience -- actual revenue service.

MR. TRUXELL: Fred is our chief engineer of coaches, and he might like to comment on that.

MR. BRADY: Yes, what we call our current bus, which is the bus which is out in the marketplace today has kneeling features on, and many cities in the United States, and we have experience with those. Plus we have experience on our --

MR. DOWNEY: Favorable experience or --

MR. BRADY: Yes, favorable experience.

MR. DOWNEY: Both from a technical and an operational viewpoint?

MR. BRADY: The advantages that -- everybody's first

step -- this is from the streetway to the bus -- is generally in the 13 to 14 inch area. This is required to have clearance at the front of your bus. The thing that kneeling does is it kneels that first step to 8 inches, which is important as far as riser height for the elderly to get aboard.

MR. TRUXELL: We found this to be very desirable too, in obtaining grant clearances and the clearance over obstructions. Question B-3: If Transbus is required what equipment at what locations should be specified or optional to assist non-ambulatory and semi-ambulatory passengers?

We believe it would be beneficial to the handicapped or DOT to sponsor research and to improve design of stationary roadway and platform interfaces with buses. Many authorities are convinced the elderly and handicapped suffer more from inadequate facilities outside the bus than from deficiencies in the vehicles themselves.

As previously noted, we plan to offer a wheelchair lift at the rear door within one year. We believe the location of the wheelchair lift should not be mandated but left as an option with the grantee.

Question B-4: If Transbus is required, what further research and development efforts, if any, are necessary? We have previously discussed the unsolved engineering problems stemming from floor heights under 24 inches. Solving these problems will require research and development by each competitor.

Question B-5: If Transbus is required, what should be the federal role, including financing, in bringing Transbus into production in accomplishing these objectives? Our position is that each manufacturer should be responsible for taking the Transbus design from the drawing board to the marketplace. In our view, the public would be served by better buses sooner by permitting each manufacturer to continue to work within the framework of free competition.

We also believe that the federal role regarding the transportation of the handicapped could be expanded to include encouragement of research and development related specifically to the supporting aspects of bus transportation systems.

For example, we believe that the mode of travel by the handicapped, especially those in wheelchairs, from their home to the nearest bus stop requires further testing and developing. Once a handicapped passenger arrives at his designated bus stop, we believe additional information could be made available to the waiting passenger, which would help the mobility of the handicapped.

Electronic data advising passengers of the next bus, its destination, the number of available seats, including whether or not the bus is equipped to handle wheelchair passengers could be programmed into a communication system located at various key bus stops.

This, and similar forms of computerized information

systems, would greatly aid the mobility of the handicapped. Finally, passenger and driver security justify substantial expenditures.

Question C: If the Secretary determines only to encourage rather than require Transbus what should be the federal role in accomplishing that role?

Further efforts should be made to identify the needs of transportation disadvantaged.

The Federal Government could do much to identify those needs through sponsorship of joint meetings of representatives of handicapped manufacturers, UMTA, APTA, and other transit operators.

By investing $27 million in Transbus to date, the government has encouraged many new features. As a practical matter, most of the Transbus goals have been achieved. We do not believe there is any solid basis for mandating Transbus nor do we believe it would serve the public interest.

This concludes our statement; we appreciate the opportunity to present our views and reaffirm our support of Transbus goals to improve transportation for all citizens. We are prepared now to answer any questions regarding our testimony.

MR. DOWNEY: We have a few additional questions, just to fill out the record. You had addressed the potential availa-bility of floor heights down to 22 inches in a time frame, and then beyond that said that it is an open issue. Is that a

statement that you would have no forecast at this time as to when it could be made available?

MR. TRUXELL: The floor heights beyond the 22 inch -- effective 22 inch?

MR. DOWNEY: Yes.

MR. TRUXELL: No, I would not have a very dependable estimate.

MR. DOWNEY: Another question. One of the issues of some controversy is the effectiveness both from a technical and an operational sense of an on-board ramp in connection with the bus. Do you have any comments on that subject?

MR. TRUXELL: Yes. Even if we were to assume that we could get a stationary floor height of 17 inches, and even assuming we could have a kneeling feature of an additional five inches so that we would have an effective floor height of, let us say, 12 inches, we feel that as you move through, say, a 6 inch high curb, you still have a six inch change in elevations to negotiate, and that would mean a 6 foot ramp.

We feel that 1-inch and 12-inches is as steep as we dare go, and we think with all of those design problems associated with getting that kind of a system that we would still prefer a wheelchair lift. Now, my chief engineer, Fred Brady, may have additional comments in that regard.

MR. BRADY: One of the problems that we see with a ramp is that when a curb is not available, then the lift would

be 1 and 6 for 2 inches and 12, and the maximum length that we can get is 6 feet, so that is where those numbers come from.

In trying these ramps on tests, we find that, number one, you must be able to lean forward or you tip over backwards, and traction becomes a problem under wet conditions or under different conditions, and I would like to call for a slide, if I may, to show this problem.

MR. DOWNEY: By the way, could we have the slides for the record?

MR. TRUXELL: Yes, absolutely.

MR. BRADY: I would like Slide A, please. This -- we made a wood ramp, and this would be a ramp from a bus that is six foot long, and if we had a 17 inch floor, and we could kneel that to 12 inches and then we had a six inch curb, so everything has to be right. You have to have a 17 inch floor, a kneel and a curb. You can get what the architecturals recommend as a maximum, which is a 1 and 12. You can negotiate this ramp.

Now may I have Slide A-2, please? This now shows what happens when you do not have a curb. You have to lean forward; it takes a lot of stength in your arms to negotiate it. In other words, the person must be strong, and if it is slippery, the wheels will slip going up this ramp, plus if there were other passengers boarding, you would have to stop and hold your-self in that position.

We see this as very impractical. In other words, entry to the bus would only be in the ideal situation, which would be good weather conditions and a curb, would it work. That is all on the slide, please.

MR. DOWNEY: In your statement you had some comments regarding the current or interim procurement policy, which is really not the subject of this hearing, but I would like to ask your views on what procurement policy should be in place at some future date if a more restrictive -- if an approved bus is available. Should it continue to be the type of adjusted low bid procedure that you described?

MR. TRUXELL: Yes, we are in favor of that; however, as I commented in the statement that we would be in favor of the local authorities determining the cost effectiveness of the various features, depending on their operational modes and geographical location.

MR. DOWNEY: You also described certain components, particularly tires, that are at this point a handicap to improved design. Are there others? What is GM doing to bring those about, and should there be a further federal role in bringing about particular components?

MR. TRUXELL: Well, the tire we view as the most major challenge. There is one promising source, but as you can understand, the operators would be compelled to turn over their entire inventory.

We are able to accomplish the 24 inch effective floor height with the existing tires. The 22 inch would require the new single source tire, and as I mentioned, if we change the specifications and two increments, it would necessitate retooling twice. We would retool the under structure to go to 24 inch effective height, and then we would retool it again to go to 22 inches.

MR. DOWNEY: You indicated in your statement that a very large portion of your existing investment would be, in effect, wasted if additional -- if changes in specifications were made. Do you have any --

MR. TRUXELL: Yes -- Fred, again, I would like to call on you, but I think you ought to touch on the rear axles and the brakes.

MR. BRADY: If we had to go below to a stationary floor height of 22 inches like the RTX or the Transbus then we get into new axles; they must be tandem in design. We must get into new brakes. Our structure changes because now it becomes lower, and this generally means added weight to get the same stiffness and strength.

We have to take a look at passengers because now because of the additional axles, they protrude up into the passenger compartment in eliminating seats. So basically, everything underneath is like starting over again, and those things would have to be developed.

MR. DOWNEY: Would the clearances be the same with your 24 inch or your 22 inch?

MR. BRADY: In the Transbus program, our Transbus was 23 inches and we were able to keep the same clearance with our Transbus and kneel to about 18 inches when the Transbus spec was 17. Other manufacturers aimed at the 17 and they did not hold their floor heights underneath. So, it is difficult.

MR. TRUXELL: Fred, would you identify yourself again, please?

MR. BRADY: My name is Fred Brady, Chief Engineer of GMC Truck & Coach.

MR. TRUXELL: I might add, Fred Brady's comments pertain to a stationary 22 inch floor, not all those problems would be encountered with a 27 inch floor that kneels five inches.

MR. DOWNEY: I guess the one last question I would have is whether you have any suggestions for the record in a general range as to what the cost per bus would be of the various options that we have talked about, if you were to produce the bus that you are now marketing, or what the cost increase per bus capital cost would be to increase to a lower floor height?

MR. TRUXELL: Of course, initially we are trying to get into production with a 32 inch floor, and it kneels, of course, five inches to 27 inches. To go the first step, that

is, to a 29 inch floor kneeling 5 inches to an effective floor height of 24 inches would be, price-wise, it would be very nominal. We would have some retooling costs, but the next step would be substantially more costly.

MR. DOWNEY: Not so really the cost to you but -- the cost per bus --

MR. TRUXELL: Well, the tooling bill will be spread over the volume, and I would judge that would have maybe a two per-cent effect.

MR. DOWNEY: Thank you.

MR. TRUXELL: Thank you.

MS. ABRAMS: Before I call our next witness, I would like to point out an error that has been pointed out to me on the agenda so that you can plan accordingly. The agenda shows the American Public Transit Association being recognized at 11:35 for only 15 minutes. That is incorrect, and I regret the error. After it is called, it will be recognized for 30 minutes. Subsequent speakers should plan accordingly.

The next speaker will be Cruse Moss of AM General. Mr. Moss will be followed by Mr. Bernard of the Flxible Division of Rohr Industries. Mr. Moss is recognized for 30 minutes.

STATEMENT OF MR. CRUSE W. MOSS,
VICE PRESIDENT, AM GENERAL

MR. MOSS: Mr. Secretary, I am Cruse W. Moss; I am

president of AM General COrporation, and I am joined today by Mr. Currie, Mr. James Currie, Vice President of AM General, and Mr. Tom Poirier, who is General Manager of our Transit Division.

I would like to first state that AM General favors Transbus. As your independent experts have found, Transbus can be realized. Transbus is required by statute; it is the only bus that can truly satisfy the needs of the elderly and the handicapped.

AM General is committed to Transbus. We wish to serve as a resource for the realization of Transbus. As we stated in our February 24th, 1977 statement to Secretary Adams, we are prepared to embark upon an accelerated program leading to Transbus production.

Our willingness to do so, however, was expressly premised upon the maintenance of a viable and competitive bus manufacturing industry in the interim. For obvious and understandable reasons, AM General is not prepared, or willing to proceed with the investment in effort for the bus of the future if it is to be excluded from the market for over two years in the interim period.

Regrettably, the policy announced by the Department of Transportation on March 8th will not maintain a viable and competitive bus manufacturing industry in the interim. As a result, we fear that our ability to provide the market with Transbus has been severely jeopardized.

Some 11 months ago I participated in hearings convened to address issues substantially identical to those under consideration here today. At that time we wholeheartedly endorsed the Transbus program.

In view of the successful five year effort that had gone before, we questioned the necessity of conducting any sort of public referendum as to the continuance of Transbus to its long announced and logical conclusion, that is, the adoption of a mandatory Transbus specification with an adjusted floor height of 18 inches to serve as the basis for supplier competition under UMTA's established low bid policy.

We continue to endorse such a mandate as the only method of both assuring competition in satisfaction of the amendment and also providing the public, including the elderly and the handicapped, with mass transportation services that are truly responsive to their needs.

AM General's response to specific questions posed in the notice of these hearings reflects its commitment to the Transbus program as consistently described in federal policy statements from 1971 through early 1976.

First, Transbus must be mandated. With respect to this issue, there can be no debate, for the universal accessibility achievable through Transbus and only through Transbus is required by law.

The universal accessibility achievable through the

low-floor, wide door, ramped access Transbus will not be realized in the near future if Transbus is merely "encouraged." There is, at present, too much investment in tooling and designs that cannot be transferred to Transbus to believe that suppliers would willingly and expeditiously move the Transbus if the government will continue to defray 80 percent of the price of interim vehicles that have not yet been amortized. To merely encourage Transbus is to kill it.

The nature of the mandate, moreover, must provide for competition on an objective basis. Any Transbus that satisfies the federally endorsed performance specifications must be eligible to compete with contract award under the standard low bid policy.

The predictability necessary for informed business decisions necessitates this. AM General cannot afford the investment necessary for the production of Transbus if it is to be prejudiced by exclusionary options or by the subjective evaluation processes that characterized last year's Houston experience.

Second, we believe that the transition of Transbus should be as prompt as possible. As we stated in our letter to the Secretary dated February llth, 1977, we are prepared, given a mandate, to proceed to Transbus production upon the 28 month lead time to bid schedule.

Little need be said to support Transbus per se. Five

years of development, engineering and testing at the hands of independent experts have proven, as evidenced by the overwhelmingly favorable program reports filed by these independent experts, that Transbus can be a reality.

The heart of Transbus is accessibility, which is provided by its low-floor, wide door, ramped access characteristics. It is these features which distinguish Transbus from their current design buses and from the so-called advanced design buses.

Now, opponents of Transbus and advocates of endeavored to confuse the question of bus floor heights. Let me seek to clarify the situation. Transbus has a normal operating floor height of 22 inches from the ground.

Equipped with a kneeling device, it can kneel to an 18 inch height to take on and discharge passengers. Current design buses, including one of the ADB buses, have a floor height in the range of 33 inches.

One of the so-called advanced design buses which has not yet been produced would have a normal operating floor height of 29 inches, and would kneel the 24 inch height to take on and discharge passengers.

The difference between one of the ADB 24 inch floor heights and the 18 inch low floor is extremely important in the relative availability of these buses to the elderly and the handicapped.

Transbus is, moreover, equipped with an optional ramp which can slide out of the floor at the front door providing a ramp incline on which semi-ambulatory passengers can walk without the necessity of climbing any steps, and upon which non-ambulatory passengers in wheelchairs can have direct access-ibility to the bus. The ADB does not have this capability.

The wide door, 44 inches at the front with a clear opening of 38 inches, provides access in a manner not available through either the current design bus or the ADB. As a sub-sidiary note, we find the option of providing a wide door for wheelchair access at the rear of the bus to be both operation-ally and psychologically unworkable.

The advanced design bus, therefore, has no real advantage over current design buses so far as a statutory required accessibility is concerned. The Transbus mandate, therefore, should encompass the low-floor, wide front door, and ramp of a Transbus performance specification tentatively promulgated more than a year ago.

As Flxible stated at last year's Transbus hearings, we see no reason to delay proceeding with the program to provide the very best for the American public riders rather than to stop at any halfway point.

With respect to further research and development efforts, it is our view that little additional work is required. On January 20th, 1976, UMTA announced that it was ready to

issue the Transbus performance specification, which had been prepared by Booz -Allen in cooperation with APTA and the other bus manufacturers. We see no difficulty in complying with this specification within the lead time and the bid schedule we propose

There is not now any serious impediment to issuing a specification promptly. In addition, UMTA and members of industry have been working for the past two years on the preparation of a uniform set of contract terms and conditions, which can be used by transit authorities in the purchase of buses.

Final comments from all segments of industry were provided within the last two weeks. These contract provisions should be ready for publication and use by UMTA and the transit authorities well before grants for Transbus will be processed by UMTA.

In your notice, you also inquired as to the role which the Federal Government should play in bringing Transbus into production. It is our belief that the Federal Government should play a primary role in maintaining uniform requirements for a Transbus vehicle, including specifications and contract provisions.

By doing so, competition can be maintained in a low bid policy which UMTA following in the past can again produce the lowest price for the highest quality vehicle. So long as the Federal Government is paying 80 percent of the purchase

price of buses, it will be paying 80 percent of all the manufacturers' investments in tooling of buses since all tooling is amortized and written off in the price of the bus.

Whether this 80 percent is paid for in the beginning of the program or over the life of the Transbus purchase should not change the position of the Federal Government. It would not change our position that Transbus should be mandated. We would suggest, however, that the program would be greatly expedited if the Federal Government would assist in starting production of Transbus and reimburse suppliers at the beginning of the program for all or a portion of the tooling which will be necessary to commence production of Transbus.

The position that we take today, and the position that we took on May 5th, 1976, is consistent with federal Transbus policy as publicly communicated by UMTA in a series of announcements from 1971 to July 27th, 1976.

This public policy assured the marketplace of both progress and competition. It provided suppliers with consistent, understandable guidelines as to the future direction that their transit bus investment should take. Such guidelines are necessary where the investment capacity of suppliers is so markedly different.

It was upon this publicly communicated and often repeated policy that we rely and upon which our investment decisions during the last five years were made. Unfortunately,

as a result of developments within the last two years, this Transbus policy was largely discarded by the prior Administration.

Having set aside Transbus, UMTA has attempted to facilitate the introduction of a so-called interim bus in a way that would exclude AM General's product from competition. The interim bus, now labeled an advanced design bus, has been proven to be one-third more expensive than other available buses. This so-called ADB is not responsive to transit needs of the elderly and the handicapped.

The prior Administration, by permitting its admitted concern for supplier investments in interim buses to frustrate the fruition of the Transbus program, place greater stock in accommodating the profit margins of suppliers than in the transit needs of the elderly and the handicapped, the accomodation of which is statutorily mandated.

The practical effect of last year's indefinite suspension of the Transbus program is clear. First, confusion among suppliers as to the direction the federal policy would take; second, the placement of manufacturers in different competitive positions in a market where investment in lead time requirements make timely notice of federal policy change critical; and third, and perhaps most important, the frustration and delay of truly advanced transit bus developments, such as the low-floor, that are demonstrably within the state of the art.

Therefore, we applaud the Secretary's reopening of the Transbus issue. We also endorse the Secretary's public statement of the three complimentary objectives that must guide the course of federal transit bus policy that results from these hearings: First, to establish a predictable federal policy; second, to maintain a viable and competitive bus manufacturing industry; and third, to provide better and more attractive mass transportation for elderly, handicapped, and other persons.

Now, all of these objectives can be obtained, and can only be obtained through an active federal role involving reinstatement and implementation of the Transbus program as envisioned, publicized and relied upon until July 27th, 1976.

AM General recognizes that Transbus has not been without its critics. Much of the criticism, we believe, is unfounded and misdirected, as the record will bear out. Criticism of Transbus is centered largely on two aspects: cost and low-floor.

As to cost, critics have questioned the wisdom of a vehicle that will cost 10 to 25 percent more than currently available models. This criticism cannot be squared, however, with the enthusiasm with which these same critics have endorsed the federal subsidy of an ADB that, without the benefit of Transbus, has demonstrated in a Houston procurement, it exceeds by more than one-third the average cost with options of other standard sized buses.

The cost criticism, therefore, we believe is baseless. Critics of the low-floor have raised a spectre of buses being caught up on curbs or damaged as a result of pot holes or road debris. This criticism, it should be understood, is not really levelled at the low-floor feature of the bus, but rather at the allegedly inadequate ground clearance associated with the low-floor.

There are two answers to this criticism: First, the opinions expressed by independently engaged automotive experts, as a result of extensive Transbus prototype testing debunk these claims.

Second, critics of the low-floor have nonetheless forcefully attempted to obtain a federal stamp of approval for an ADB that without the low-floor advantage of Transbus provides actual less ground clearance than Transbus. Complaints with respect to the low-floor can only be regarded as dubious.

We submit that a federal determination with respect to the viability of Transbus should not be based upon the complaints of those suppliers who have a vested interest in the amortization of investments that cannot be adapted to Transbus.

Your Transbus decisions should be made upon the advice and opinion of those independent experts in your service who can approach and who have approached the Transbus issue impartially, objectively, and without a personal financial stake in the outcome.

We have been prejudiced by the concern demonstrated by the prior Administration in setting aside Transbus for the Transbus frustrating investments of certain suppliers. It was abundantly clear to all who read UMTA's policy announcements from 1971 on, that an interim investment that could not be adapted to the Transbus specification could not be amortized.

For a supplier to have made such an investment in the face of that public policy and subsequently petitioning the cognizant agency to reverse that policy in order to protect a Transbus frustrating investment represents the height of presumption.

For UMTA to have accommodated that request was unconscionable, and it has exhibited a complete disregard for those who, lacking the resources to gamble on their ability to coerce the government into an accommodation, must of necessity rely, or did rely, on a consistently enunciated public policy.

We have repeatedly advised the Department of Transportation and UMTA or our support for and commitment to Transbus. Our investment decisions have been made in reliance upon the publicly enunciated Transbus policy. We are the only supplier, that in response to the Department's request for comments on February 24th, 1977, committed itself to the production of Transbus vehicles.

We also stated, however, that our commitment to the Transbus program was necessarily related to our ability to

remain a viable supplier in the marketplace, pending the Transbus mandate. We cannot afford a two year or longer hiatus in revenue producing activities.

For AM General to be relegated the role of an engineering enterprise pending Transbus will terminate the function of the company as a supplier of standard sized buses. AM General had hoped that the Department of Transportation would understand these legitimate concerns.

Although the Secretary's March 8th, 1977 policy expresses the view that it will not competitively harm any manufacturer already pledged to the production of Transbus, the policy appears to leave AM General in an intolerable position.

It would appear to subsidize the exclusion of AM General from the market in the pre-Tranbus interim. The policy forces AM General to reconsider its present in the Transbus market.

The March 8th, 1977 policy, in our opinion, disregards the reality of the marketplace. This is not a market in which supply and demand are freely operative. There is, quite frankly, a deep pocket or a rich uncle that renders price relatively insignificant to the properties.

Federal subsidy of ADB purchases will result in effective allocation of this market in favor of ADBs without any competitive test of their value.

As Flxible stated in its recent taped conference with DOT, Flxible anticipates that 95 percent of the interim procurements to be subsidized by UMTA will be for the more expensive ADBs. The March 8th policy thus would appear to lead inevitably to a two supplier market.

AM General offered meaningful alternates for the interim, alternates that would fulfill the Secretary's objectives. Unfortunately, these were not adopted. We proposed head-to-head, value-for-value competition between the so-called current and advanced design buses.

Rejection of this proposal disregards the amendment. Rejection of the proposal may be explained by the fact that the ADB, a high-floor bus with the same engine and running gear as the AM Metropolitan model is a gold-plated vehicle with marginal improvements which cannot begin to justify the price differential that has been demonstrated will be incurred. Our proposal for value-for-value competition was discarded without explanation.

We believe that if value competition between current and advanced design buses is rejected, then both should be supported by federal grants. Accordingly, we also propose a mixed fleet approach to the utilization of federal subsidies. This was rejected on the ground that it would frustrate new market entry and involve too great a federal role. We cannot comprehend this response.

As to potential new suppliers, the mixed fleet approach creates barriers to entry no greater than those erected by the March 8th policy. As to the extent of federal involvement, the government subsidy of 80 percent of the price, particularly in view of the Brademas Amendment, imposes an attendant, affirmative duty to assure that competition is not sacrificed in the process.

A federally subsidized market that becomes the captive of interim investment is unlikely to see that progress promised beyond the interim until those investments have been fully amortized.

The March 8th policy leaves AM General its commitment in principal to Transbus notwithstanding, in an untenable position having relied upon and been faithful to the Transbus policy as consistently communicated in public.

We are confronted with effective exclusion from the market by federal subsidy of a more expensive but unproven product. As I have noted, and as I have repeatedly advised the Secretary, AM General's ability to proceed with Transbus has been predicated upon the reasonable expectation that our existing product would continue to be eligible to compete for the interim standard size bus market. We cannot sustain an investment of the magnitude required to implement Transbus production in the face of the significant market foreclosure effected by the March 8th, 1977 policy.

Transbus is both desirable and achievable. Moreover, its production is required by a series of statutes designed to benefit the elderly and the handicapped, but without a mandate for the low-floor, there will be no Transbus.

There is at present a vested supplier interest in preserving and recouping investments that run counter to Transbus. AM General, having conformed its investment decisions to the Transbus policy, suffers from no such disability.

Without the presence of a third competitor committed to bringing Transbus to rapid reality, there will be no incentive for the market even in the face of a mandate to provide the consumer with Transbus in the reasonable future. We urge not to let federal policy become a captive, once again, of the supplier investments for which the prior Administration has expressed such undue concern.

In conclusion, AM General firmly believes that you should mandate Transbus. The taxpayers have already spent $27 million on Transbus. It is the best available bus for the general public, including the elderly and the handicapped.

We would like to produce Transbus. Our ability to do so, which is a function of federal policy in the interim, is today an open question. I wish to thank you and your associates for extending me the opportunity to present our views, and we hope that this will prove to be a meaningful forum, and we feel sure that a way can be found to utilize AM General as a resource

for the realization of Transbus.

Thank you.

MR. DOWNEY: Could I ask a couple of questions?

MR. MOSS: Certainly.

MR. DOWNEY: Going back to your comments about the ramp, which is, of course, one of the distinguishing features here, could you, again, spell out for the record the height of your floor, the length of the ramp, and the slope of that ramp, and whether, in fact, it is tested and accessible to people in wheelchairs?

MR. MOSS: Well, the work we did in conjunction with the ramp, the floor height question, the revised suspension concerning the low-floor was done under the auspices of the Transbus program, and our floor height was 22 inches kneeling to 18, net effective 18, a 4 inch kneel. The ramp specifications Tom, if you --

MR. POIRIER: Well, the ramp -- we figured that the 1 inch to 1 foot ramp, that is the general average. There are times when the 2 inch to a foot would be almost obligatory, depending on curb height. We do not feel it is an imposition or too great of an ordeal for the people.

MR. DOWNEY: Do you feel then that relying on the 2 inch to 1 foot slope is acceptable?

MR. POIRIER: I think it is acceptable, yes, sir. It is difficult, but it is acceptable.

MR. POIRIER: My name is Tom Poirier, and I am General Manager of the Transit Division, AM General.

MR. DOWNEY: Another issue that has been raised in terms of the potential availability of Transbus is the need to have certain components developed; there is a question as to whether all of the components that would go into a Transbus are available on the market.

Other subjects aside, you have said you could meet the -- within 28 months -- a time schedule for delivering of production Transbus --

MR. MOSS: Not delivery -- to bid --

MR. DOWNEY: To bid, plus six months -- what would be your source for components such as drive shaft such as tires, other things that are at least alleged to be not available?

MR. POIRIER: Well, I think that they are under development and we feel could be developed and tested within the time frame that we indicated. There has been a great deal of work done already, and we think the time frame would allow the completion of that work and complete testing for those components.

MR. DOWNEY: Are there federal incentives that would be required towards availability of those, or --

MR. POYER: As I pointed out, the investment in tooling is paid for by the Federal Government, either amortized in the price of the bus, and as I suggested, a way to possibly

expedite Transbus would be to make some of that tooling money available in the initial phases of the program, but it could be handled either way. It might be expedited if it were front-loaded, so to speak.

MR. DOWNEY: And I gather from your comments that the cost per bus, of a bus that you might be in a position to produce to a Transbus specification, you stated to be 10 to 20 percent --

MR. MOSS: I think I said 10 to 25 percent above the cost of --

MR. DOWNEY: Ten to 25 percent above the cost of the current design.

MR. MOSS: And that would be piece price increase, not necessary for the tooling of how much it would be amortized.

MR. DOWNEY: I think you covered in the statement, but we might just want to repeat it for the record, do you feel that the ramp is the only feasible means of handicapped accessibil-ity?

MR. MOSS: I think we would answer that this way: We think the most important single feature of Transbus is the low-floor, the 22 inch floor kneeling to 18. The wide 42 inch with effective 38 inch clearance front door, perhaps, is second.

The ramp is merely a device to utilize that floor height in certain instances, but, as you know, they were optionally equipped at the time the Transbus program was worked.

MR. DOWNEY: The ramp optional.

MR. MOSS: Yes. I might add, Mr. Secretary, that at the present time, we currently make available a wheelchair lift on current production, and we are currently delivering to Southern California 200 such equipped buses.

MR. DOWNEY: Just, again, to clarify the record, the ramp that we are talking about that you would suggest as a mandatory feature on Transbus, is that an on-board ramp?

MR. MOSS: Yes, it would not be a mandatory feature; it would be an option.

MR. DOWNEY: An option?

MR. MOSS: Right.

MR. DOWNEY: Thank you.

MS. ABRAMS: The next speaker will be Tom Bernard of the Division of Rohr Industries. Mr. Bernard will be followed by Colonel Joseph Lopez of Pegaso of Spain. Mr. Bernard is recognized for 30 minutes.

STATEMENT OF MR. TOM J. BERNARD,
VICE PRESIDENT & GENERAL MANAGER, ROHR-FLXIBLE

MR. BERNARD: Mr. Secretary, my name is Tom Bernard; I am Vice President of Rohr Industries and General Manager of the Flxible Company, Rohr's wholly owned bus manufacturing subsidiary. My associate at the table is Ed Kravits, Flxible's ice resident of ngineering.

I am afraid we came woefully unprepared. I did not

bring any slides or movies of our new advanced design bus, and I did not bring a whole lot of comment about the March 8th policy. I decided that it would be better if I addressed myself to the questions that were in the Federal Register.

Since the inception of the Transbus program in 1971, Rohr-Flxible has been a wholehearted supporter of the concept. We were quite proud of the performance record that our Transbus prototype achieved during the demonstration tour in selected cities across the United States.

In our role as a manufacturer and supplier to the industry, the question of yes or no on Transbus is not properly within our province to answer. Transit operators and riders can and will better advise you as to whether or not Transbus is vitally needed or justified because in their role, they are closer to the specific needs and desires of the riding public.

However, in order for you to make an intelligent decision in this matter, it is our responsibility to advise you as to the technical considerations and the time required to achieve such an objective.

Therefore, my remarks will address themselves, first, to some of the major technical points at issue, followed by some comments on specific research and development requirements, and finally, they will provide a background for a summarization which will attempt to specifically answer the questions set forth in the notice of public hearing set forth in the Federal

Register on February 16th, 1977.

As regards the technical considerations, we feel obligated to point out that current model buses, as well as our recently announced advanced design bus, the Flxible 870, can provide full accessibility insofar as the handicapped are concerned.

At this very moment, buses are being delivered to St. Louis from our Delaware, Ohio facility which provide wheelchair accessibility by means of a recently developed elevator lift device. The real question at issue becomes whether the term "fully accessible" is best expressed in terms of such a lift device in which the steps fold down to a platform which operates as an elevator, or whether it would be more desirable and worth the cost of additional research and development to develop a ramp which can be deployed more rapidly, and which will allow access to the bus without the necessity for negotiating any steps whatsoever.

Such a ramp was developed on the Transbus; it was the only one with such a ramp, and proved to be a convenient and efficient method of entry for all riders, handicapped, non-handicapped, as well as the aged and arthritic.

The use of the ramp raises other technical considerations which we believe represent the crux of this of this entire Transbus question. For once you decide that a ramp must be employed, you then have to decide what the slope angle or

ratio is that you are going to use.

The degree of slope employed will, in turn, dictate the maximum floor height of the bus which, in turn, has a dramatic impact on the overall cost and time constraints associated with such a program.

For example, on the Rohr Transbus prototype, we used the current architectural standard of the 1 and 12 slope, which you saw earlier on the General Motors slides, that is, that the ramp extended 12 inches for every inch in height. This provided reasonably easy access for everyone who needed to board the bus.

In order to accomodate the 1 and 12 ramp, we had to produce a bus with a maximum floor height of 17 inches and the ability to kneel 4 inches. The length of the ramp is restricted by bus width dimensions to approximately 5 feet. Such a bus proved to be extremely expensive because it was designed with four axles and 12 small tires; it had insufficient underbody clearance, and was deemed by most of the bus operators to be impractical in terms of operational cost.

The bus did, however, provide for full accessibility using the ramp for entry. In order to provide such a bus on a production basis, the following development efforts would still be required.

Firstly, the wheels and tires. The tires were 28 inches in diameter versus today's 42 inch tire; brakes, rear

axles and differentials, front and rear suspension systems.

Another option which we subsequently investigated involved a general floor height, or stationary floor height, of 22 inches sloping to 20 inches at the center line of the front door with a 4 inch kneel.

Use of a ramp at this floor height resulted in a ratio of 2 inches and 12; again, I think you saw it on the second slide that General Motors produced. This floor height would prove to be significantly more practical from both a first cost and an operational standpoint, but would still require the following major component developments: a 35 inch versus the current 42 inch tire; again, new axles -- this would be a three axle bus; new differentials; new front and rear suspension systems.

The above noted technical considerations make it clear that the first question which must be answered involves the maximum ramp angle or slope allowable. We do not believe that lower floors are going to be the answer to this problem. We believe that if you really want full accessibility, you must get to a ramp height. Obviously, the steeper the ramp, the higher the bus floor can be, and the less expensive it will be to develop and operate such a bus.

In view of all of these technical discussions, our recommendations would be as follows: One, initiate funded research by UMTA activity to establish the maximum ramp angle

and floor height acceptable in order to provide accessibility to the majority of the elderly and handicapped population. We are not sure anybody really knows just exactly what that ramp angle has to be.

As part of the study, statistical data should be developed by a major city which indicates what the real numbers are in terms of those riders who are currently being precluded from the use of public transportation due to physical limitations, and who would be able to use such a vehicle.

Secondly, initiate an UMTA funded research and development program directly with the underfloor component suppliers in order to establish cost and schedule for development of common componentry in the areas of axles, differentials, brakes, wheels, tires, and suspension systems.

We would like to underline the word "common." We place particular emphasis on this point, which we first suggested in May '76 hearings, because it is simply not cost effective for each bus manufacturer to develop its own unique design for such componentry. That only increases tooling and production costs due to lower volumes, which are ultimately passed along to the buyer and the Federal Government.

We do, however, believe that each bus manufacturer is capable of accommodating a structural design to accept such common componentry, if the needs of the manufacturer are considered at the outset.

Furthermore, we would recommend that there be competition in component development so that more than one supplier is available to the industry if at all possible. This approach may prove more expensive at the research and development phase, but competition at the production level should result in lower unit prices.

Concurrent with the above, we would recommend that UMTA contract with each bus manufacturer to provide two or three prototype vehicles to test these new components. Implicit in all of the above recommendations is the necessity for a continuous study of cost tradeoffs.

The goal is to introduce at the earliest possible time commercially acceptable components and buses which meet or exceed current standards of reliability. The cost to achieve this must be carefully weighed against alternative forms of service for elderly and handicapped, which the members of APTA have been experimenting with.

Finally, we believe it is imperative that this whole question be addressed in teamwork fashion. As a bus manufacturer, we are, frankly, weary of being placed in the middle between APTA, UMTA, and the representatives of the elderly and handicapped relative to bus design.

It is vital that the bus operators themselves, through their representation in APTA, contribute heavily to the program in terms of what would finally be acceptable to them. They are,

after all, our customers, and we, as manufacturers, must satisfy their requirements in order to remain viable in the industry.

Based on what we have said thus far, then, our answers to your questions as set forth in the Federal Register would be as follows: Question A, and I won't repeat the question -- everybody else has -- as previously indicated, we do not believe that we as a supplier should recommend yea or nay.

However, we must point out that merely encouraging the use of Transbus will not be effective. It is doubtful that any manufacturer will go to the expense of introducing such a configuration with the amount of real opposition that currently exists on the part of those that actually purchase the buses.

Question B: If Transbus is mandated, the answer to these questions can only come after you have developed a plan of research and development and receive commitments from the component manufacturers.

For example, one tire manufacturer is on record with us as requiring three years to develop a production version of the smaller tire previously mentioned. I believe we have fully covered what research and development efforts are required and insofar as the role of the Federal Government including financing is concerned, we believe the Federal Government need only achieve the previously recommended research development and testing activities.

Insofar as the bus design, exclusive of underfloor componentry is concerned, it would probably be an ultimate deterrent to competition for the Federal Government to finance the balance of that design.

In conclusion, we would respectfully recommend that if in the final analysis it is determined the Transbus will be mandated, some specific legislation be sought to that effect. We submit that to simply announce such an important decision in the form of a policy from UMTA is worrisome to us.

As recently as January '75, the policy was that Transbus would ultimately be mandated but that an interim bus would be funded. The July '76 policy announced the Transbus was for all intents and purposes dead but that a 24 inch effective floor heighth would be required on all buses advertised as of February 15th.

We have spent considerable time and money to conform to this policy and now are put in the position of spending more money to return to the original floor level. Now, a new policy has been promulgated and we have yet to see how it will work in practice, if it can withstand legal challenge, or how long it will last.

We respectfully submit that the record of changing policy provides an inadequate basis for rational business planning, and that the entire industry has suffered and is currently suffering from a lack of definitiveness and continuity.

We would frankly be more comfortable if a Transbus policy, which implies significant future investments for all manufacturers, were committed to law, and therefore, less likely to be altered by changing organizations and administrations.

Once again, we appreciate the opportunity to state our views. We would like to, again, point out that Rohr and Flxible will support whatever final policies of the Administration that come into effect as we have these past six years.

Thank you. That concludes my remarks.

MR. DOWNEY: Thank you.

Could I ask, as I have with the others, if a Transbus were mandated what your current estimate might be as to the cost, and also the timing as to when it might be made available?

MR. BERNARD: With regard to the cost, I have to address myself -- I do not feel that the cost of the advanced design buses, incidentally, is one-third more. I think that is simply an indication of a bid where you did not have any competition.

The cost of a Transbus -- it is very difficult for us to give you a definitive estimate of that. Again, a lot depends on the design involved. The design of our advanced design bus was built with the thought that ultimately we would have to get to a Transbus floor height.

So, the amount of tooling that we would have to do in

order to achieve a lower floor height, is relatively insignificant.

MR. DOWNEY: Can I just follow up on that?

MR. BERNARD: Yes.

MR. DOWNEY: In other words, the investment that you have made in your advanced design bus is not foregone and foreclosed by further --

MR. BERNARD: No, sir, not at all. There would be some limited tooling investment to get to a lower floor height, but our bus does not care what happens below the floor effectively. We built a Transbus from the floor up while we waited to see what you were going to do about this policy.

MR. DOWNEY: I was always -- asking a question of when --

MR. BERNARD: When -- again, that depends on the component suppliers. Obviously, if the Federal Government whomps up a real good research program with those component suppliers, then the three or four years that we have been told may be a little bit on the long side, and we would guess somewhere between two and five years.

Again, it is our feeling that as those component suppliers provide the components on a production basis, we as manufacturers should be able to incorporate them as they become available.

MR. DOWNEY: I would also ask, if a mandate were

put in place, what should be the means of procurement under such a mandate?

MR. BERNARD: Well, I would have to say that over time, and we would subscribe to the low bid philosophy -- we are willing to subscribe to any procurement philosophy that allows us to go forward in business at this time, but the low bid -- again, my belief is that if you have a performance specification, and you mandate a Transbus, you are going to gravitate toward low bid in any case.

MR. DOWNEY: Would there be something in the interim?

MR. BERNARD: Obviously,we subscribe to the currently produced policy, although we have reservations, particularly as to whether the individual properties themselves or APTA are capable of making the allocation of cost tradeoffs. The first 14 that tried it had a zero to $19,000 variance, and it seemed to me that was rather high.

MR. DOWNEY: Current policy suggests that UMTA would make those tradeoffs?

MR. BERNARD: Yes, and we would subscribe to that.

MR. DOWNEY: Thank you.

MR. BERNARD: Thank you.

MS. ABRAMS: The next speaker will be Colonel Joseph Lopez of Pegaso of Spain; Colonel Lopez is scheduled to be followed by the Honorable Michael Blouin, Congressman from the

Second District of Iowa. Colonel Lopez is recognized for 20 minutes.

STATEMENT OF JOSEPH N. LOPEZ,
MANUFACTURER'S REPRESENTATIVE, PEGASO OF SPAIN

MR. LOPEZ: Good morning, Mr. Secretary. I would just like to turn this around to face the public --

MR. DOWNEY: Excuse me. The hearing is for us and not for the public.

MR. LOPEZ: Okay. Excuse me. I thought it was a public hearing.

MR. DOWNEY: Primarily for us. I would like to see you.

MR. LOPEZ: I am not going away; I am going to face all.

We are Pegaso of Spain; for those of you who do not know us, we are the largest bus manufacturer in this room. We made 3000 buses last year, all deisel. We made 28,000 vehicles in all last year.

We have 12,000 employees; eight plants. We export to countries worldwide. We export to every major country except the United States. This -- we do not have slides, but we do have some of the ideas of the total range of our production.

We have more than 40 models of buses ranging from the mini-bus up to the articulated bus which has received great favor here in the United States in a very short time through a

recent procurement.

We watch with great interest on some of the comments of our fellow manufacturers on what they consider to be open competition. For those of us who have been precluded by what we feel is no competition, this is a very strange position to take.

Pegaso has been building buses since 1903; we were formally known as Hispano-Suiza Corporation. In World War I, for example, all of Eddie Rickenbacker's aircraft were powered by the Hispano-Suiza engine.

If you want to carry it a bit further, 85 percent of the allied aircraft in World War I were powered by the Suizas. In Spain and in Europe, and I will have to speak for most of the European manufacturers because there are none here besides myself, buses are designed for people, not for transit operators.

We design buses for people who carry packages, people who take baby carriages onto buses; we design buses with one door, with two doors, with three doors, and with four doors. We have standard transit buses that have three 48 inch wide doors on the same side of the bus.

Then as a bonus, we even throw in a door for the driver who has been completely ignored in this whole operation. The primary thing that is keeping us out of the market in the United States are restrictive specifications.

The specifications issued by DOT are restrictive; they

are excusionary, they are discriminatory. The biggest obstacle to our entering the market is that the whole world, the entire world under the guidance of the United Nations has subscribed to a width in bus of 98.4 inches; that is, 2 1/2 meters.

In the United States you have two specifications; two sets of tooling: 96, for example, in Virginia, and 102 in Maryland. Now, if you would take 102 and 96, add them together, I think you would come to 198; divide those by two, and you would come to 99. That is a pretty good average because it comes very close to our 98.4.

Now, why do we suggest that you go to the 98.4? The 98.4 will permit a two-way street. I am an American, I believe in competition, I have served in the U.S. Army for more than 20 years, and I have supported vehicles in procurements on every major continent on this earth, but we can go and have a two-way street.

If the U.S. manufacturers will go to a 98.4 vehicle, they then compete in worldwide markets, which in a large part, are denied them because you cannot use the 102 inch vehicle in West Germany and you cannot use it in England, but a 98.4 you can.

Now, the kinds of things that you get into -- the recent public notice put out by the Department of Transportation to widen bridges in the United States to accomodate the newer buses coming onstream.

Now, I submit to you, it is a heck of a lot cheaper to begin to buy a standardized international bus than it is to widen every bridge in every city in every town in this country.

The Transbus goals are very interesting, and the Transbus program was very interesting. We feel it was a very effective R&D program, and the $27 million was well spent. Now, diluting the 14 inches of material that was given to us at last year's public hearing of May 5th, we come down to two basic facts: wide doors and low floors.

Now, Pegaso of Spain, as well as other European manufacturers, have been making several low-floor buses and buses with wide doors. Some of our people in Europe have even done a lot better than we have, but we have a bus that we have had in production now for over three years.

We have even been fortunate enough to sell it to France, which is more nationalistic than Spain is, and it has -- I am not talking about an effective low-floor -- I am talking about a floor height from the street at the front door and the rear door of 26 inches.

It also has a 10 inch front step and two 8 inch risers. Now, we do not feel that tradeoffs involving putting kneeling on the bus are worth it because we get the same thing by going to both the front door and the rear door.

If you would take the kneeling factor a little bit further, for the U.S. manufacturers to achieve what the Europeans

have done, you would have to involve a new term which is called squatting in order to get all of the bus down at the same time.

Now, every now and then I go into a bit of levity, but it is only because not being in the market really hurts and it hurts in the pocketbook. In October, 1975, Consumers Reports put out, and I have given over two dozen of these magazines here into the Department of Transportation, an article called "Why Not Better Buses?"

They cited all of the reasons why Seattle could not buy buses for three years even though they had 605 buses on procurement, and of those 605 buses in a very short time they got absolutely no bids, and they found that 135 buses of the 40 foot variety had to be put out on single source procurement.

On the balance of the buses, the articulated buses, for example, they put out a specification which called for 102 inch wide bus. That 102 inch wide bus -- there were five of us initially at the bids -- Volvo of Sweden, Icarus of Hungary, Pegaso of Spain, MAN of Germany and Van Houl of Belgium.

None of the manufacturers there for articulated buses which are only built in Europe and we have been building them for 19 years, none of the manufacturers there build a 102 inch bus. All of our tooling is 98.4.

Lo and behold, one manufacturer did come up with a 102 inch bus suddenly. The specification was amended for the one manufacturer, and the rest of us protested -- Volvo dropped

out of it completely, Van Houl dropped out, Icarus stayed in, and Pegaso stayed in the protest game.

We protested all the way, and we even invited in one of our protest sessions the Office of Consumer Affairs, Anne Uccello of DOT, to sit in. We said to her, "You are going to pay an awful lot of money for this bus on the order of, instead of $120,000 budget per bus, you are going to pay far in excess of that."

She asked us, "How do you know?" Well, we think it is our business to know the market, but she was right. We were wrong because our estimate was $130,000; the actual bid price in Seattle for that bus was $138,000 per copy with escalation to $171,000.

Now, we were thrown out for several reasons. One of the reasons -- our bus sells in Spain for $55,248. The MAN bus sells for $92,000 and change. When we were asked how much would it cost you to go to 102, we told them, "It would cost $30,000 per bus."

When MAN was asked, they said 11,024. You multiply the factors there times the number of buses purchased. Obviously Pegaso is excessive because in a market area, we projected a market of 800 buses -- 30,000 times 800 is 24 million; 11,024 times 800 is only 500,000. So, obviously, Pegaso is excessive.

But in the outcome of that procurement and a subsequent procurement in California in which 12 other cities were

involved, we find that the Department of Transportation, with a very cavalier attitude on the part of many of the people working in here, are paying $37 million in excess of competitive market prices for the bus.

Now, our bus has a Cummins engine, U.S. made, a Detroit diesel transmission, U.S. made. The other bus that you buy has a German engine and German transmission, and very few American components.

So, we say, "Open the competition," and we will be glad to get into the market, and so will Volvo and so will Berlier, Sabium, Scandia, and all of the other European manufacturers.

In Spain alone there are three bus manufacturers who make far in excess of the number of buses than you make in this country. Now, why should Seattle buy articulated buses from Spain? Well, it seems that Iberia Airlines buys 747s from Seattle and 707s, and one 747 would keep Seattle in articulated buses for many more years than I can tell you about.

Spain right now spends five times more in the United States than the United States buys from Spain, and all we are buying from Spain is shoes, olive oil, and wine. We are darn good shoe makers.

The other interesting aspects of the Transbus program are that you have spent $27 million; you have funded a program. You have that funding to get back in the way of low-floors. If

you would open the competition today as Mr. Brademas, in introducing the famous clause which amended the UMTA Act said, in introducing the Act, that what he is looking for -- that is paraphrasing -- rather, the amendment simply requires that the spirit of federal regulations, fairness and economy in making purchases be made applicable to these transactions.

This is not a novel idea in requiring that the rule of competition govern these contracts, and so forth. I think the same principles, fairness and economy, in spending federal tax dollars, should apply here and hope the amendment will be accepted.

It was. Now, this is a photograph of our bus. Now, I would like to show you the bus, but we were denied permission to bring the bus in last year for the visit of the King of Spain. Then we asked the R&D people in UMTA to permit us to bring an articulated bus, a mini-bus, and also a standard bus, and have it here in display in the plaza.

We were denied permission to do that. We have never been invited to any meeting of any of the so-called manufacturers When you are talking about the manufacturers, you are talking about three people.

Let us examine the competition you have there. You have General Motors as a principal manufacturer; you have AM General, a newcomer, and you have Flxible. Now, if you examine the components in those in those three buses, you find

that all three manufacturers use a GM engine and a GM transmission.

So, in effect, you have one manufacturer and two body builders, if you will. This is not effective competition. We are asking to come into the market. We are asking to come in as a competitor.

We are willing, ready, and able to come in. We do not want to be told by the Assistant Secretary for Administration, Mr. Bill Heffelfinger, that this is the bus; this is the pen that signs the bus contracts in this building. This pen will never sign a Spanish bus contract.

Well, that may be true because he may get his walking papers before then, but being precluded from even renting space in this building, in a public building, by Mr. Heffelfinger we feel, is a great abrogation of our rights as U.S. citizens and as Vietnam veterans and a few other things.

The figures used for the elderly and the handicapped normally are three percent. We feel that the elderly and the handicapped -- yes -- handicapped are three percent, but as Mr. Joseph Califano of HEW recently stated, the elderly in this country over 65 are now 30 percent.

So, when you use your figures, I think you should look to 33 percent as a figure that you look to serving the industry. We are ready now to compete our standard bus 26 inches floor height, front and rear door, with a lift supplied by TD&T of

San Diego, California on every bus with a Cummins engine and an Allison transmission for the current price of your available buses. Now, that is competition.

We are saying that we are willing to put a lift on every bus. Now, eventually, if you are talking to us as a manufacturer, we think that the ramp as developed by Rohr is probably the ideal solution because this ramp permits all to get on much quicker and much faster, but in an evolutionary fashion, we feel that the TD&T ramp is a solution at the present time.

MR. PASTOR: You said ramp, but you meant lift.

MR. LOPEZ: Lift, excuse me -- and this lift substitutes for the stairs and then becomes the stairs on the way up. In conclusion, looking at the Transbus questions, we favor open competition.

When you consider that probably 30, or as high as 50 percent of people in this room rode to work this morning or to this meeting in foreign cars, and zero rode in foreign buses, the question goes begging.

We believe that you should set performance goals. The specification put out in March is a design specification and not a performance specification. If you want a wide floor, then say what your width is.

We can meet 48 or any other width, particularly in the rear doors; 48 is about the max you can get on the front

because you have got to put that front wheel somewhere, and the front edge of the bus has to go somewhere.

Now, we feel that you should mandate the goals and that you should put dollars on the achievement of those goals. If you want a 22 inch floor, then put a dollar figure on every inch.

Now, within the framework of competition, we believe that your American manufacturers have been outstanding their accomplishment in coming forth with the Transbus program with the expenditure of the $27 million. This proves that it can be done.

Now we have to see what the feasibility is. If we are going to go with the buses that are completely closed, as one of the new ADBs is, with closed windows and with no sliding windows, what happens when the air conditioning fails?

You are using 10 percent more energy for air conditioning, and if someone tells me that the air conditioning does not fail, I would like the people of Washington to tell me what has been happening to the 620 buses on the streets here in Washington.

I have got the white light. We are in favor of a lift on every bus. We are in favor of a ramp for future development, and would entertain any competitive spec in getting into the market. Thank you.

MR. DOWNEY: Thank you.

MR. LOPEZ: Any questions?

MR. DOWNEY: No questions.

MR. LOPEZ: That is all too good to be true.

MS. ABRAMS: Our next scheduled speaker is Congressman Blouin. My most recent advisory on the matter says to me that the Congressman is not here but that a representative from his office is. If that is correct, would that representative identify himself, indicate whether he proposes to speak in the Congressman's behalf, or whether we should go on and try to accommodate the Congressman when he does arrive?

MR. DOWNEY: Is someone here from the Congressman's office?

MS. ABRAMS: Well, it appears that that information was also incorrect. Under the circumstances, let us go on to the following speaker, Mr. B.R. Stokes, Executive Director of the American Public Transit Association. Mr. Stokes is recognized for 30 minutes.

MR. DOWNEY: Mr. Stokes, would you object if the Congressman arrives during your time to suspending a moment and letting him proceed?

MR. STOKES: Mr. Chairman, I never object to anything that a Congressman wants to do, so feel free, please.

MR. DOWNEY: Thank you.

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STATEMENT OF MR. B. R. STOKES,
EXECUTIVE DIRECTOR, AMERICAN PUBLIC TRANSIT ASSOCIATION

MR. STOKES: I am B.R. Stokes, executive director of the American Public Transit Association, and I appear here today on behalf of APTA. With me at the other table are Clarence I. Giuliani, who is Vice President of the Advance Design Bus and Bus Technology Committees and hairman of the APTA Advance Design Bus Task Force, and when he has time, serves as director of maintenance of the Mass Transit Authority of Baltimore, Maryland, and Ms. Lillian Liburdi, Chairman of the APTA Elderly and Handicapped Committee and Special Assistant to the Director of Terminals Department, Port Authority of New York and New Jersey, and one final witness whom I will introduce later for brief remarks, Mr. William Probst, Chairman of the Operations Committee of the MARTA Board of Directors from Atlanta, Georgia.

APTA is the organization representing the urban transit industry. Its operating members total more than 300 rail and motor bus operators in the United States, Canada, and Mexico.

Ninety percent of the people using urban public transit in the United States are transported by APTA members who operate more than 50,000 buses and more than 10,000 rail vehicles. APTA Bus Technology Committee, representing both large and small member transit systems throughout North America, has met on a

regular basis since July, 1971, to review the state of the art in buses and to provide industry guidance to federally sponsored bus programs.

The Advance Design Bus Committee has met 28 times since September 7, 1976 with the the Office of the Secretary of Transportation, bus manufacturers, consultants, and UMTA officials regarding the development of an advanced designed bus which I will try to refer to as ADB heretofore, procurement policy, and the baseline advance design transit coach specifications.

APTA's response to the issues raised in the notice for this hearing are predicated upon three basic concepts as follows: First, APTA's Board of Directors by formal resolution opposes any policy which would result in the mandating by the Federal Government of any single bus for the transit industry; two, APTA's Board of Directors by formal resolution opposes any federal policy which would mandate full accessibility features on every regular route step entry vehicle; three, on April 22, 1975, APTA testified before an UMTA public hearing on proposed rules for elderly and handicapped transportation services.

That testimony reflected the APTA belief concerning local decisions, and one paragraph of that testimony is most germane, and I would like to quote it and will do so now: "APTA believes that there are numerous alternative choices available to society which will accomplish the mobility goal. Each

alternative may have benefits and disadvantages associated with it. However, local decisions as to the choice of alternative transportation service must be premised on local needs.

"In some communities it may be feasible and desirable to provide full accessibility to fixed public transportation facilities as part of an integrated system to meet mobility needs.

"In other communities, however, accessibility to fixed facilities may not be the answer to this need, or it may be a long range objective. In these situations, the decision is one which should be made by the community after reviewing local needs and constraints which have been planned, reviewed, and weighted against national mobility standards."

Now, APTA's response to the issues raised by the hearing notice today are as follows. Issue A: APTA is on record as opposing the mandating of a single bus. Therefore, in the framework of the question posed in Issue A, APTA recommends that UMTA encourage the use of the advanced design bus performance specifications in connection with new transit buses purchased after a certain date for the following reasons.

One, APTA believes that the design, construction, operation and maintenance problems occurring on the Transbus prototypes can best be overcome by construction of the advance design bus which is a large evolutionary step toward Transbus.

Two, Transbus reliability issues emphasize the need

for manufacturers to refine designs and equipment construction to meet normal warranty provisions. This indicates the need for the construction of the ADB.

Three, technological development requires a long lead time to develop the design and manufacture of new vehicles. Required specifications result in vehicles with less than proven results.

On Issue B, APTA recommends a floor height not to exceed 30 inches. However, APTA recommends that UMTA encourage bus manufacturers to provide the lowest floor height possible commensurate with their confidence in a reliable and cost effective design.

It would be quite desirable to have different manufacturers provide vehicles with different floor heights so that revenue service experience and reliability for these truly competitive vehicles could be established firmly.

There is no question that if such real competition is established and one manufacturer provides an effective design for a very low-floor height bus and the operational experience of this vehicle is both safe and reliable, that most transit systems will wish to purchase that type of vehicle for the future, and that all manufacturers will find ways to copy, or emulate that breakthrough in a reliable, very low-floor design.

APTA concurs in the recommendation for the 24 inch effective floor height, which was to have been required for all

buses advertised after February 15, 1977. However, APTA has no objection to the major manufacturers having different lower floor heights if there is an effective evaluation procedure which allows transit systems to give credit and bid evaluations to product improvement and manufacture innovation.

Without question and regardless of the floor height, there should be an option available for either the front or rear door to be sufficiently wide to allow adequate wheelchair accessibility by ramp or lift at that location.

Of course, adequate ground clearance and sufficient approach and departure angles must be maintained to permit the bus to have normal and reliable operating characteristics. It would be desirable if a manufacturer could provide effectively such a wide door opening at both the front and rear door in a vehicle with maximum seating capacity capable of rendering a normal reliable service with maximum comfort to all passengers.

In response to the question concerning the effective date of any of the above and what supportive actions should UMTA take in furtherance of any of the above, APTA recommends as follows The Effective Dates:

First, the Secretary should take action as soon as possible after this hearing to make known his long term policy on Transbus and the advanced design bus so that the manufacturers and the transit industry can plan effectively.

Secondly, APTA recommends that as soon as possible the

Secretary establish policy setting forth that the Administration will encourage or require the use of ADB performance specifications, although we have no objection if any manufacturers wish to continue the manufacture of the current bus, as long as there is no attempt to try to bid the current design bus against the advanced design bus in strict low bid competition.

Three, APTA recommends that after the introduction of the advanced design bus, studies be made of its operational experience and plans be developed as to the practicality of conducting a developmental program regarding whatever suspension system, tires, power train, or other elements will still need refinement, so that we may move toward the lowest practical floor Transbus vehicle at some future time.

Presuming that ADB vehicles are placed in revenue service in late 1977, it is probable that such a review might be made in late 1978, and that the evolutionary change toward a 22 inch or lower Transbus type vehicle might be made by 1982 or later.

Again, we reiterate the necessity to first study the operational experience of the advance design bus and determine whether the reliability problems and cost effective aspects suggest that a Transbus be built in 1982 or later.

On the issue of the federal role in bringing Transbus into production, APTA urges that federal funds be used only for the developmental programs of materials, components, or systems

which have so far thwarted the best manufacturers and component suppliers insofar as their perfection of design safety, reliability, and so forth.

For example, a development program for a stronger, small tire to provide approximately equal mileage as that provided by present tires on current buses would be extremely helpful.

In addition, there certainly would also be similar problems concerning the chassis and suspension system if a floor height without the use of kneeling of 22 inches or less is ever to be achieved with a maximum safety, reliability and cost effectiveness.

On the issue of the step riser height: First, APTA recommends the establishment of the lowest practical riser height possible consistent with the established knowledge that risers are from 7 to 9 inches in height and having multiple risers of equal height, are the most effective way to provide safe access and egress from transit vehicles.

Our only concern regarding the establishment of a requirement for a strict 8 inch riser height is that APTA would like to provide the maximum opportunity for bus manufacturers to use their design and production skills to establish the best riser heights commenserate with an effective and cost effective overall design.

For example, if one manufacturer establishes a floor

height of X, which is the lowest practical floor height that can be accomplished commensurate, again, with the reliable safe and cost effective vehicle, then that manufacturer should have the opportunity to use equal riser heights of, for example, 7 1/2 inches, 8 3/4 inches, or whatever equal riser heights would best accomodate the total design of that vehicle.

Additionally, APTA urges that the same arguments should be applied to the rear steps. A newly designed transit bus having the option for full accessibility with reserved seating for elderly and handicapped persons near the front of the bus provides less reason for having 8 inch risers at the rear door.

Finally, bus floor levels slope gently up to the rear to provide sufficient ground clearance over the transmission in other components. Thus it may be necessary to have slightly higher risers at the rear step, for example, 8 inch minimum to 9 1/2 or 10 inch maximum.

On the issue of the date for changes on the step heights, we feel this information could more properly be supplied by the manufacturers themselves on the subject of transportation services for the elderly and handicapped persons.

In keeping with the mandate of the UMTA Act, APTA reiterates its position that the question of means of providing mass transportation services to elderly and handicapped persons in a manner which they can utilize effectively is best left to

local decision makers.

Depending upon the nature of the use of the transit vehicle which is providing service for elderly and handicapped persons, the agency can best determine whether such wide entrance doors for total accessibility should be at the front or the rear of the bus.

The follow on of other UMTA programs, such as the Small Bus Project, conducted by Rensler International and the Para transit Vehicle Development Program, as well as the National Study on the Transportation Problems of the Transportation Handicapped will all be helpful in providing information to both the handicapped public agencies and transit systems on how best elderly and handicapped transportation services can be provided.

In this regard, I would particularly cite, Mr. Chairman,
the study now underway by UMTA for which $1.5 million is being expended. I would hope that we do get some conclusions and results from that study before instant judgments are made as to the best means of serving elderly and handicapped transportation.

In connection with that, I would like to call to your specific attention one of the submittals in our packet of material submitted with this testimony, which is a status report on elderly and handicapped public transportation, which we think goes far as a beginning in terms of setting forth some of the

problems, some of the progress, and some of the things yet to be resolved in this very complex question.

The third and fourth purpose of this hearing concerns procurement policies for advance design buses. APTA would like to repeat the information supplied in its cover letter to this Docket Number 51, dated February 22, 1977, concerning procurement policies, as follows.

"This current concern over UMTA procurement policies specifically that policy with respect to advance design bus procurement resulted from urgent telegrams which APTA addressed to the President of the United States and to the Secretary of Transportation on October 25, 1976," and copies are submitted.

UMTA responded promptly to these concerns by initiating a series of meetings, which totalled more than 20 in number. These meetings involved UMTA and the Office of the Secretary, transit operator representatives, and representatives of the three major bus manufacturers and consultants.

Out of the initial consideration of nine different concepts of procurement policies designed to foster bus product improvement, a consensus was finally reached by all of the parties mentioned above.

As a result, a proposed procurement policy was promulgated by UMTA on January 4, 1977, and a copy of that is also in our submittal. APTA has requested an opportunity to participate in complete and straightforward decision making discussions with

UMTA to formulate the details of the procurement policy announced by Secretary Adams on March 8th, 1977.

We believe that the critical situation which has prohibited the acquisition of such buses by transit operators demands that this policy, or a policy retaining the essential thrust of the January 4 policy, be made effective immediately, and that such policy not be subject to revision as a result of this hearing.

Also enclosed as part of the submittal are various documents which provide detailed information concerning the genesis of the problem and the development of a proposed policy. The recent joint efforts by all parties to develop a solution to the transit operating industry's critical need for improved buses demands the earliest possible action by UMTA.

We stand ready to assist the Secretary and his staff in any way that might be helpful in adopting the proposed procurement policy. APTA anticipates that the formation of the Transit Bus Quality Board will beof great help in certifying the design of new transit vehicles, as well as qualifying the manufacturers.

This board should be active in the area of promoting new and desirable changes from, say, last year's production in making them standard items rather than options as well as preventing further frivolous options.

APTA very strongly believes that there must be a

cooperative mechanism, either derived administratively or legislatively, to assure that APTA, the transit industry, manufacturers and UMTA personnel are involved in a decision making process with a complete and straight forward discussion of all elements of both the procurement policy and any necessary evaluation processes.

This cooperative mechanism is necessary not only for the procurement policy and evaluation of advanced design buses but for questions that relate to all transit equipment, rail cars, fare boxes, radios, tires, and all other mass transit equipment.

In other words, the transit operators of the United States must be in a position to offer the very best in equipment and service to the American public which they are charged with serving.

We thank you for an opportunity to present our views. At this point I would like to utlize two minutes of my remaining time to introduce Mr. William R. Probst, Chairman of the Operations Committee of the Board of Directors of the Metropolitan Atlanta Regional Transportation Authority, Atlanta, to speak on the subject, and then all of us will be prepared to address questions. Thank you.

MR. PROBST: Thank you, Bill.

Mr. Chairman and members of the committee: As an appointed official in my hometown of Atlanta, I would like to

request that you not mandate but encourage, and encourage performance, not design standards.

Design standards have a habit of becoming steeped in mediocrity. They seek the average. Now, America is not the greatest nation in the world in artists maybe, or in music, but we are the greatest innovators; we are the greatest entrepreneurs.

That is proven here today in these discussions and in those that preceded it. The Transbus program has been successful. The money is well spent. A lot of innovation has taken place.

Like the rest of the audience today, I have listened to, not explanations before the committee, I have listened to sales pitches. There have been some pretty good ones too. Now, as a local official, I would like to suggest that local decisions be left to those of us in that position.

Think of it for a moment: I have to determine in a policy making standard whether and how we serve express runs, local runs. I have streets that have curbs; I have streets that do not have curbs. I have varying conditions in terms of pot holes and the absence thereof. We have to make those decisions

Let us decide how we are going to handle the elderly and the handicapped. In Atlanta we innovated a little bit. We chose to modify some existing transit vehicles that we had. We were responsive to our marketplace.

We believe that we have a selective marketplace in

terms of the handicapped. We think it is working very well; the reports are good thus far. In terms of the elderly, the statistics are good. Yes, there are a lot of elderly persons. All of us are there or will be there one of these days.

We do something unique in Atlanta too, and before I left, early this morning, actually last night, I was talking to my 80 year old father-in-law, telling him what I was coming up here for.

He said, "Bill, remember, you give the elderly a break at the fare box," and he said, "I do not know what the highfaluting mechanisms are going to cost, but if you are going to take away my fare reduction, I am not in favor of it." That is input from the public. Thank you.

MR. DOWNEY: Thank you.

I would like to clarify one point first. You stated that APTA was opposed to any mandate of a single bus design.

MR. STOKES: Correct.

MR. DOWNEY: Mr. Probst, I think, echoed that, but stated his interest in seeing a performance specification. Are you also opposed to a performance, single performance specification for the standard transit bus?

MR. STOKES: So long as we can get a performance specification which would permit competition, innovation, product improvement in terms of the free marketplace, we are in favor of this sort of approach, Mr. Downey.

MR. DOWNEY: The mandate that is on UMTA is to carry forward all possible efforts to improve service to the elderly and handicapped. If we do not do that through all vehicles, what are the alternatives that we have available?

MR. STOKES: Again, we are talking here, Mr. Downey about a local decision based upon local needs. There are transit systems in this country who have ordered or are in the process of ordering and intend to order regular route step entry vehicle buses with ramps or lifts, depending upon what comes along.

There are many other areas in this country who are taking the route of providing accessibility without -- providing mobility without the full accessibility to transit vehicles through the medium of specialized services developed precisely and specifically for those communities.

I would cite Denver and Cleveland as two very excellent examples of what is going on at the moment, and what we have tried to do, by the way, in this report that I called to your attention, is to, at that frozen date in time, illustrate the kinds of services being provided innovatively by transit operators throughout the country.

There is a great mass of feeling, and I may ask, if I may, Mr. Chairman, for Ms. Liburdi to comment on this, but there is a great mass of feeling among many operators, that the best way, really the only way to handle the very severely handicapped, the non-ambulatory wheelchair bound person, for instance, is

through a personalized service that is almost door to door.

Again, many of our operators have cited the recent storms this winter to illustrate their problems with even any kinds of efforts to get wheelchair people from their homes to a bus stop even though it might be fairly close to that person's home.

Could I ask Ms. Liburdi if she has any further comments on this?

MS. LIBURDI: I am Lilian Liburdi. Just one -- I think you have made most of the remarks that I would have made, but that in the planning process that it has been regulated by both UMTA and federal highway.

The local community is mandated to provide a response to the needs identified in that community that has been developed in a rational fashion and that has had participation of the consumers.

I think that that is the point, that we are attempting to provide services, that the consumers and the planning process identify jointly, and that these services -- and Bill pointed out that they may be specialized services -- they may be a number of different kinds of services.

They may be paratransit services provided by special service agencies that might be funded out of HEW; they may on the other hand be the taxi operator, which I think, we consider a mass transit operator.

So, what we are saying is that there are local kinds of responses that can be made in conjunction with the regular operator's service or as a separate kind of response.

MR. DOWNEY: Have those proven acceptable at the local level both in terms of response of people who are using them and also in terms of response, perhaps, of those who feel they have a right to use any available service?

MS. LABIRDIE: I do not know if I could tell you that the verdict has been in on that fully. In some communities, as Bill pointed out, Denver and Cleveland, there is quite a bit of support by both the ridership and the community for those services. On the other hand, many communities have not gotten to that stage in their planning or their program development activity yet, so I cannot answer that yes or no on that.

MR. DOWNEY: One of the concerns we have, and I would like you to address this, is that issues relating to the design of the bus are essentially physical issues. A bus is a bus and it is the same bus no matter what city it is being used in, and a person in a wheelchair is presumably a person in a wheelchair, no matter what city he might exist in.

If the answer is good in one city, why is it not good in another city? Are there factors that can be established to really justify a variation in treatment across the geography?

MR. STOKES: Oh, I think without question. Again, it goes to the heart of our basic philosophy that there should be

a local decision, as Mr. Probst so eloquently pointed out in terms of his Atlanta experience.

Again, there are many options available to transit operators, to the public, to society-at-large, as to how best this service can be provided. Again, because of the Rohr structure, the configuration of the city, the attraction points, whatever it may be, there may be reasons for one city to go with fully equipped regular route vehicles.

There may be just as valid a reason for another city of somewhat similar size to choose an entirely different method of operation, and I think that with the efforts that the transit operators have made over the past many months which are compiled as a beginning in this book, with the study you now have underway in UMTA for the overall look at this entire question, I think we may be approaching some questions.

The essential thing is so long as the option on the regular route vehicle, the option for wheelchair accessibility is provided, the city then has a full range of options available to it to meet these needs as best it can and as it best sees the needs being met.

MR. DOWNEY: On the basis of the discussions you had with your members, is there any favorable or favored means towards providing that access to the regular route vehicle? The ramp, the on-board ramp versus the wayside ramp? Is there any consensus relating to those?

MR. STOKES: I know of none. Mr. Giuliani, who has been heavily involved in the technical aspects of this for a period of time, may wish to comment. Clarence, do you?

MR. GIULIANI: I am Clarence Giuliani. No, there is really no preference. In fact, there is a general reservation on the part of the people involved that the technology of both developments is so far behind the requirements that it is too early to make a selection.

As was pointed out by several of the manufacturers, they have been attempting various designs, but most of the designs are not technically good, acceptable, practical, or maintainable. They are a first cut -- an evolutionary design. At this point, I would say -- much much work has to be done before it becomes universally acceptable, either a ramp or a lift.

MR. DOWNEY: You say that both ramps and lifts are in this sort of embryonic stage?

MR. GIULIANI: Very much so.

MR. DOWNEY: For the record, are there any buses being purchased in this country today that are transit buses that are not funded through UMTA, or is UMTA essentially 100 percent of the --

MR. STOKES: Urban transit buses -- I suppose there are still a few, Mr. Downey, but the great bulk, I would say, certainly above 90 percent of the buses being purchased are with UMTA funds.

MR. DOWNEY: For those properties who have gone with an accessible bus, do you have any indications as of now what the operating experience has been, both the wheelchair lift and also the kneeling feature?

I know there were some press reports in recent days that the kneeling feature may be good in theory, but another thing that the bus driver has to be educated to use.

MR. STOKES: Mr. Downey, I do not have figures here. Mr. Giuliani may, but in any event, we would be pleased to supply them for the record within the next few days. We do have some information on it in the office. I just did not happen to bring it with me.

Clarence, do you have any information?

MR. GIULIANI: No, I have no figures. As far as I know, the first elevator production models are in the process of production now for the Southern California people, other than small individual procurements, and as far as the kneeling feature is concerned, again, it is a relatively new concept.

There have been some problems, both operating and safety and maintenance-wise, but we have no figures on this yet. It is still too early.

MR. DOWNEY: In your statement you indicated that you felt the proper course to follow was extensive field use of the so-called advance design bus before going forward. So you feel there is sufficient continuity between the advance design bus

and the Transbus to have that experience really be useful to a decision?

MR. STOKES: I think without question, it is the only way to get the Transbus. I have long held this view that depending upon the person's point of view, I think the advanced design bus is 75 or 80 or 85 or 62 1/3 percent of what was trying to be achieved by Transbus.

It seems to me this is the only logical and sensible way to move on an evolutionary basis toward the next generation of buses which well could be this Transbus down the line a way. But we in the transit business, and as a personal note, as you would well know, we have gotten into problems time and time again with this foreshortened research, development, prototype operational cycle that we have gone through.

In this particular field, because it is so important, particularly now in view of the energy crisis as our people have to get pumped up to carry more and more people, it is absolutely essential that we get a good developmental program on this bus before we freeze and try to take the next step forward.

MR. DOWNEY: Thank you, Mr. Stokes.

MR. STOKES: We appreciate very much the opportunity, thank you.

MS. ABRAMS: For those of you still making an effort to follow the printed agenda, I have to announce a few more changes. The printed agenda tells us that Metro Seattle is

scheduled to testify next.

However, the Metro Seattle and the Southern California Rapid Transit District have requested that their times be switched. We will now hear from the Southern California Rapid Transit District, who will be represented not by Mr. Gilstrap, but by George Brewster, Vice President of the Board Of Directors, who will be accompanied by Mr. Gilstrap. Mr. Brewster is recognized for 15 minutes.

STATEMENT OF MR. GEORGE BREWSTER,
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

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MR. BREWSTER: Thank you, Secretary Downey and gentlemen. I am George Brewster, vice president of the board of directors of the Southern California Rapid Transit District. I wish to speak to you for only a few minutes with some general remarks at the conclusion of which I would like to turn the podium over, yield to Mr. Jack Gilstrap, our general manager at SCRTD.

I welcome on behalf of my Board of Directors the opportunity to appear before this hearing and to publicly state, once again, for the record, SCRTD's support for the Transbus program.

We in Southern California have made our decision for an accessible system but having made it, we have had a great deal of trouble implementing it. As many of you know, SCRTD was one of the earliest proponents of the Transbus concept.

We at SCRTD remain determined to acquire buses that meet the needs of the elderly and the handicapped. Our district's commitment to accessible buses is more than mere philosophy. It is a firm policy.

The SCRTD board on October 22nd, 1974 adopted a resolution instructing the staff to include provisions for the elderly and for the wheelchair handicapped in preparing the specifications on all new buses to be acquired by the District.

Our staff has pursued those instructions vigorously, and in the face of what I would remark or term as incredible discouragement. To capsulize our efforts to buy accessible buses, the SCRTD staff worked with the manufacturers and with the UMTA for more than 18 months in a sincere effort to obtain bids on low-floor buses equipped with lifts or with ramps.

We invited bids on 200 such buses. Bids finally were scheduled for April 20th, 1976, but when that date arrived, no bids were received. This disappointing development created a new and immediate problem for us at SCRTD.

We had no new buses on order and we had a serious need to replace some of our aging units. In order to bring new buses into our fleet and to replace obsolete buses long overdue for phasing out, we issued new specifications for a standard 34 inch floor height bus with a lift for the wheelchair handicapped and a 6 inch kneeling capability.

An order for 200 of these buses was placed with AM

General in October of 1976, and if all goes well, we may have these in operation by the end of this year. Thus, after over two years of efforts, we finally had to settle for what we would term "half a loaf": a bus for the handicapped with its own built-in handicaps.

That is, we settled for a bus which will have a lift for the wheelchair handicapped but which does little for the aged and those with ambulatory handicaps since it will have neither the low-floor, nor even 8 inch step risers. We expect to receive our first deliveries, as I mentioned, this summer, and to begin placing them in service sometime in the fall later this year.

We still are actively seeking a truly accessible bus for both the elderly and the handicapped, and our goal and policy is to eventually have a 100 percent accessible regional fleet. The district endorses as an interim measure the requirement that all new buses will have 24 inch effective floor heights and 8 inch step risers, and urges that this be mandated as soon as possible.

While this move falls short of achieving Transbus, it is a move in the right direction toward a fully accessible bus, and that is why we are for it, but we really do not feel it is going far enough.

With regard to those features of Transbus which we feel are essential, we believe that the low-floor is of utmost

importance. Nothing higher than 22 inches before kneeling should be accepted, and frankly, the 17 inch floor which was one of the design objectives of Transbus is even more desirable since it eliminates any interior steps and permits the use of a ramp with its inherently greater safety, convenience, and time saving potential as compared with the wheelchair lift.

I, therefore, relay my personal concern and that of the SCRTD board and management and urge the revitalization of the federally funded Transbus RTD&E program and the pursuit of the low-floor objective, knowing full well the concern of some operators and some manufacturers about the technical achievability of such an objective.

I would point out, however, that two of the three manufacturers who were participants in the development of the Transbus prototypes in testimony at hearings on this matter on May 5th, 1976, and I believe I heard it again this morning, urged the continuation of the Transbus program.

They indicated then that much had already been learned through the development of the Transbus prototypes, and no insurmountable problems were evident. Reports prepared by Booze-Allen for the UMTA confirmed that the problems of approach, breakover and departure angles, wide doors, and maintainability identified in the Transbus prototype can be corrected by simple design changes.

Some component developments associated with the low

floors, such as tires, axles and suspension, obviously will require more development work, but that is no reason to abandon $25-30 million in research and knowledge that has been accumulated and achieved to date in the Transbus program.

We have already lost too much of an unrecoverable resource, and that, gentlemen, is time. The waters have been somewhat muddied by the introduction of the so-called interim bus. At least a year has now been lost in the Transbus program, and I am told a significant segment of the bus manufacturing industry has been brought to the brink of economic disaster simply because somehow we lost sight of the original objectives and failed to carry through on the original Transbus program.

That program would have provided 100 percent funding with an original run of up to 500 Transbus units from at least two manufacturers. We at SCRTD say, "Let us get the Transbus out of the hearing rooms and onto the street."

The question has been asked, should UMTA encourage or mandate Transbus? SCRTD strongly favors local option in all procurements, whether or not supported by federal funds. On the other hand, I think most of us out in California really believe that the question of whether to encourage or to mandate is perhaps a moot one.

Since we firmly believe that once Transbus is available and is in service, its advantages not only to the wheelchaired handicapped and to the elderly, but also to the blind, to the

arthritic, to the semi-ambulatory, to the housewife with her arms full of grocery bags, to the young mother carrying an infant, and on and on, will create a market for low-floor buses exceeding our most optimistic expectations.

In conclusion then, I would urge UMTA to move with expediency to make Transbus a reality. While it is perhaps becoming a rather trite and tired cliche, it is inconceivable to me that a country that put men on the moon cannot commit itself to building buses that everyone will want to ride.

Let us no longer indulge in possibility destruction; let us stop bemoaning why we cannot do something, and let us start figuring out how we can do it. There is a large segment of our population that is now disenfranchised and overlooked in the planning and building of a whole society.

Statistics show conclusively that we will all one day be either deceased or elderly, and those who escape the first, at least one-third of them will be disabled to some degree at one time in their lives.

Thank you very much, gentlemen, and Jack Gilstrap, if you would take the podium.

MR. GILSTRAP: Thank you, Mr. Brewster, and good morning, gentlemen. My name is Jack Gilstrap. I am the General Manager of the Rapid Transit District. In the few remaining minutes allotted to us, I would like to call your attention to a couple of factors as a means of reinforcing Mr. Brewster's

remarks concerning our strong commitment to Transbus.

First, before we ever made the decision to opt for the accessible bus, we performed detailed studies of the public need and of the advantages of the fixed route accessible bus versus the separate demand-responsive systems.

We met with and sought counsel from the handicapped and the elderly on an area-wide basis. We employed a consultant who is himself confined to a wheelchair to advise on problems of the handicapped.

All of these preliminary studies and investigations led to our early specifications of buses with a low-floor, a single low step, a wide door, and a level change device for wheelchairs.

In the fixed route, accessible bus versus the demand-responsive systems, we found that service to the elderly and the handicapped should first cover the entire service area; second, operate during the same hours as those provided able-bodied passengers; third, have no higher fares than the existing system; fourth, not be restricted to certain trip purposes only; fifth, take no longer to travel between any two points; sixth, not require advance arrangements to travel; in other words, be treated like an ordinary customer.

It was our conclusion that logistically, the only way to provide such full mobility to the elderly and the handicapped, in a 2280 square mile service area of our district was through

a full system accessibility program.

We also made exhaustive cost effectiveness studies. As far as cost is concerned, there is no question in our minds that full accessibility is more cost effective than equivalent specialized services.

A case in point is that of the 200 buses now on order, and you know that we now have buses that are to be received this summer, these buses were bought to replace buses now becoming obsolete.

Such purchases are part of our normal budget. The buses we have ordered will cost about $8000 more than standard buses whereas vans purchased by community dial-a-ride costs around $15,000 each.

Operating expenses for these 200 buses are included in our budget, but additional operating expenses would be required for a fleet of specialized vehicles. We estimate that to adequately serve our area with specialized vehicles for wheel-chair handicapped only, we would need a fleet of 455 vans with an estimated annual operating cost in excess of $40 million.

It must be emphasized that if the elderly and others are included in a special service, it would take a fleet of vans at least equivalent in size with our fixed route bus fleet and with commensurate costs.

For our district, it was quite apparent that full accessibility was the answer for the RTD, both from the standpoint

of public service and from the standpoint of cost effectiveness. I would like to point out to you that buses without low-floors do not adequately serve the elderly.

The industry is making buses accessible to the handicapped with the lift but little has been done to make buses more accessible to the elderly. In this connection, I would like to call your attention to the February 28th Newsweek that many of you have seen, so aptly referred to recently here as the Graying of America -- quite a dramatic picture in the front of this Newsweek. It depicts a transit operator before and after trying to get Transbus.

(Laughter.)

MR. GILSTRAP: In any case, the swelling ranks of those over 65 is certain to bring major changes in our attitudes and our way of life. Think of some of the statistics. In 1976, 19.7 percent of our population was over 55.

By the year 2030, the percentages expected to be 27.1 percent and the number of people over 65 by 2030 is estimated at a startling 52 million people. I would seem to me that our transit industry,in delaying action on Transbus,may be underestimating the magnitude of the elderly market.

Of course, in this growth in the numbers of elderly ridership, there are many, many operating implications. Not only will there be more elderly people, but they undoubtedly will be more transit dependent than ever.

For one thing, the price of owning and operating an automobile is certain to increase in the next few years. This can only mean fewer and fewer senior citizens will be driving their own cars.

Examinations for driver's licenses are becoming more stringent all the time. It will become more difficult for the elderly to qualify for a driver's license. This will further increase the number of transit dependent elderly people.

We subscribe wholeheartedly to the compassionate reasons for providing accessible public transit for the elderly, but we also think it is simply good business to have buses that all of our people can board and use with ease.

Thank you.

MR. DOWNEY: Thank you.

Could I just ask a couple of questions? Mr. Brewster, in your statement you indicated that -- I do not think you firmly said that Transbus should be mandated. You did suggest that if it did come on the market by the force of competition it would become the accepted standard.

I wonder if if we do not have a chicken and an egg situation there. If it is not mandated, how does it come under the market based on your experience with not getting bids?

MR. BREWSTER: Mr. Downey, I believe that the process that we see bringing about the full service use of the Transbus type vehicle is basically this. If the federally funded Transbus

program could bring the development of the vehicle and all its component parts to a point of RTD&E feasibility, that the manufacturers could then see the engineering and manufacturing and operational possibilities and realities of such a vehicle, that we could then demonstrate to them, I believe, the market potentials that would encourage them to move forward.

MR. DOWNEY: What sort of a procurement process would you envision that could permit that, where obviously there would be some transition, or perhaps, one manufacturer is ready to move and others are not?

MR. BREWSTER: Mr. Secretary, I do not know that I have fully thought that question through. Jack, have you or your staff given that one any --

MR. GILSTRAP: You mean the idea of how do you get the bus out without mandating it?

MR. BREWSTER: And what sort of procurement process do you have going in a time when perhaps Transbus is ready to be introduced by one manufacturer but others are still producing buses of a different type?

MR. GILSTRAP: Well, I think the answer to that is to give adequate time for the development of the bus with adequate federal support for that and give the opportunity to the manufacturers to meet the time frame and to be able to provide the bus, and then once it has -- you have gone through that process, I think if some manufacturers choose not to bid, fine,

that is their choice, but we are satisfied that this bus will be the future for the industry.

There is just no doubt about that, and so I think you will see all manufacturers -- you have two manufacturers already saying that -- as I understand them -- they are on the verge of being able to proceed with this bus. I think you will see them all bid.

MR. DOWNEY: I have several questions I would like to follow up on with respect to your district's cost effectiveness study of alternative means of serving the elderly and the handicapped. Obviously that is site specific to Los Angeles.

MR. BREWSTER: That is right.

MR. DOWNEY: Do you feel there are specific factors there that would be considerably different from a decision that might be reached other places, or is there a fair margin of carryover to other places?

MR. BREWSTER: Let me explain a little further, Mr. Secretary, some of my background. I am also an elected official in a city that has a municipal line, and I believe that the approach that the RTD has suggested as appropriate for the Southern California region is a correct one.

I would not be so presumptuous as to state that that would have applicability across the nation in various other markets and geographical sitings and contours, and demographic

situations. My concern is for the Los Angeles region principally, and the approach that Mr. Gilstrap, the analysis that Mr. Gilstrap has talked about, we are dedicated to and are confident in as the proper one for our region.

MR. DOWNEY: In the cost effectiveness study, measuring, in effect, life cycle costs of an accessible fixed route service against the layering of both the fixed route service and a demand-actuated service or separate service, did your maintenance costs for the new equipment reflect any uncertainty about what the maintenance and operating experience would be with a low-floor bus? Did it include some penalties, or was it based on present maintenance experience?

MR. BREWSTER: Mr. Secretary, what I would like to do is provide you the rather detailed report we did on this to answer these questions.

MR. DOWNEY: Okay. Another question which we would want either now or for the record, did your study of the service aspects of merging the handicapped service with regular service take into account any penalties that this would impose on the regular customer, the allegations, perhaps, that there would be excessive delays or loss of traffic due to the fact that both services were being offered?

MR. BREWSTER: Yes, we took that into account, and we are still satisfied. It makes sense. I would like to stress a point that is very important, I think, and that is that we

seem to be constantly pulled towards concern over the wheelchair mechanism and the needs of the handicapped, those folks in wheelchairs.

We feel, again, that what we really need is a bus that is accessible to all of our customers, and there is the answer to where your benefits rest in operational benefits, that is, speeding up your service with a bus that is really accessible to everyone.

I think we ought not to be drawn into just thinking about the wheelchair and all of the mechanism that is involved there. It is a small portion of our ridership. What we are really after is a bus everybody can use.

MR. DOWNEY: Without being drawn in that direction I would like to ask one more question about the wheelchair accessibility. Had you made any preliminary conclusions, or were you waiting to see what would develop with respect to a lift versus a ramp? Do you have any observations on those two potentials?

MR. BREWSTER: Well, we would love to have a ramp --

MR. DOWNEY: On board the bus type ramp?

MR. BREWSTER: Yes, but you cannot with the floor height that is available, so we are going with the lift and we are worried about. it. We are the first ones out of the gate on that ramp and that is great fun, but we are going to do the best we can because somebody has got to do something.

MR. DOWNEY: Thank you.

MR. BREWSTER: Thank you.

MS. ABRAMS: Our final speaker before lunch is Aubrey Davis, Chairman of the Transit Committee of Metro Seattle. Mr. Davis is recognized for 15 minutes.

STATEMENT OF MR. AUBREY DAVIS,
CHAIRMAN, METRO TRANSIT COMMITTEE

MR. DAVIS: Mr. Chairman and members of the committee, my name is Aubrey Davis. I am chairman of the Transit Committee of the Municipality of Metropolitan Seattle, commonly known as Seattle Metro.

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I am here represeating our 37-member governing board and the 41 million passengers we carried in 1976. I am concerned about the future of our 600-800 vehicle bus fleet. We thank Secretary Adams for calling this hearing and reconsidering the issue of federal support for advanced design bus purchases.

I am here to support continued efforts to bring an environmentally sound, fully accessible bus into production. I am here to support immediate procurement policies which assure operator options such as a 24 inch effective floor level, wide doors, grab rails, and wheelchair lifts.

Some call these amenities; I do not. For many of our truly transit dependent, these features are essential and not amenities. We have about 33,000 such semi-ambulatory persons in King County, and the number will grow.

Bus procurement policies must foster comparative bidding and continue manufacturers' research and development. The sidetracking of the federally supported Transbus program and the demand of transit operators for passenger improvement in current bus purchases have blurred the distinction between Transbus and the best currently available design.

It is, therefore, all the more important that the Federal Government bus procurement policy foster a competitive manufacturing environment which allows a variety of manufacturers responses to the performance of expectations of those transit operators seeking a bus with technologically advanced features but accomodating the special requirements of each service area.

The RTS-2 and Flxible 870 incorporate most of the best features provided by Transbus. We are especially interested in the 29 or 30 inch floor height which can kneel to 24 inches.

This height will substantially improve access for the moderately disabled who are an increasing proportion of our riders. This should be a mandated option. This feature combined with a retractable lift will provide substantially better access to elderly and handicapped.

The additional improvement from Transbus which could only be accomplished with significant technological change and result in extra cost may be marginal. This marginal benefit must be weighed against the tangible benefits for immediate bus

availability in competition.

Our interest at Seattle Metro is not theorectical. We expect to be in the market in the next five years for at least 350 more standard-sized buses. Seattle Metro's transit operation and expansion program was authorized in 1972 by a voter referendum which provided an add-on local .3 sales tax support for this system.

We pledged purchase of advanced design buses during that election campaign. We have included advanced design features as both required and optional items in our bus specifications. We have been stymied several times in our bus procurement efforts because of the technologically advanced features designated in our specifications.

We finally settled for the best available technology in order to acquire 215 buses to replace the oldest dogs in our fleet. We and our fellow transit operators cannot wait any longer for the government and manufacturers to resolve their disputes about federal support for bus procurements.

Aging bus fleets jeopardize the safety and marketability of our transit system. Many of the features which make bus riding desirable and possible for senior and disabled citizens, including lower floors, wide doors, grab rails, and wheelchair lifts are in evidence in buses in current production.

Further improvements are available in the RTS and 870. We need these improvements as least as options. While we support

the future production of buses with low-floors and other interior improvements for better noise and air pollution for reducing features, today's technological advances should be available now to transit systems which cannot wait for bus purchases.

Meanwhile, we believe UMTA should support the R&D necessary to take the next step forward. Seattle Metro, like several other transit operators, has identified the Transbus as an important feature of the transit industry's commmitment to the elderly and handicapped.

While awaiting the outcome of the Federal Government's Transbus policy, we have nonetheless made a substantial commitment to improve the use of our system by the elderly and handicapped in King County.

Elderly and handicapped citizens pay half-fare throughout their full day an our entire system. We operate a special demand-responsive bus for the Metropolitan Residential Handicapped Center.

We have designed Braille detail bus stop signs; picture telephones for the deaf at our customer assistance office, and are engaged in an inter-agency elderly/handicapped transportation services study effort.

It is clear from preliminary results of this study that no single course of action will effectively meet the widely varying needs of this group. We must do several things. First, we must continue to seek bus features that provide maximum

accessibility so that anyone who can reach a bus route by wheel-chair or otherwise can get aboard.

We have gone to bid for 10 fully accessible standard sized buses to use for trials on our regular routes. However, there are too many persons who for a variety of reasons cannot get to a bus stop for us to limit our efforts to improving accessibility on regular routes.

I have asked our staff, therefore, to explore contracting for door-to-door service with a consortium of local government agencies already directly involved in the supervision of services to the elderly and handicapped.

Such a consortium can plan the most effective use of the 16-B-2 vehicles and other special vans in the hands of social service and other agencies. Such a consortium would be better qualified in cooperation with various constituencies to determine priorities and would be more knowledgeable about needs and available supplemental resources.

We already have committed over five percent of our Section 5 resources to special provision for handicapped and elderly with our special fares and other services. I believe we should commit another five percent to this consortium in the operating expense of the door-to-door service which they could provide. Our counsel will be considering this proposal in the very near future.

While we believe that such a special service

arrangement is essential to a broad scale approach to the transportation needs of the elderly and the disabled, it should not be our only approach. Our regular service must also meet a part of the need by using equipment which has improved accessibility.

We urge, therefore, that the federal bus procurement support policy result in choice for the transit operator among manufacturers and options of the best -- advanced design bus technology feasible today.

Thank you.

MR. DOWNEY: Could I just put the same question I put to the others, or some who would answer it: Should the policy require a Transbus specification at some future date, or should that be left as an optional encouraged item?

MR. DAVIS: I think it is our feeling -- we have broken our pick in an effort to move technology forward. We are convinced that it has cost us in patronage and in service that we otherwise could have gotten sooner.

We still feel that ultimately we are going to have to carry everyone who can reach a bus route on a bus, so we do feel we are going to have to get to the optimum lowest floor we can get to, but we are concerned about the technological problems concerned, and we think--I think I should express this -- I think because there are a variety of opinions on this matter, that the R&D had better proceed to the point where the results

are accomplished with positive UMTA support that may require establishing deadlines for points along that R&D trail before you set a date for Transbus.

We think you should ultimately set a date for Transbus but we think work has got to be done first. We were not satisfied with the maintainability and the practicality of the Transbuses we saw.

We think many improvements are available now, and we do not want to wait indefinitely for those. We want to get those now, and then see the Federal Government move along as fast as they can to support the development of the changes to make the next step forward.

If you do not do that, it won't occur. So it is going to take more than, I think, encouragement. I think it is going to take positive investment on the part of the government.

MR. DOWNEY: In your decision to test some fully accessible, I gather, through lifts, buses on regular route service, have you looked at the operating impact on offering service through the lift?

MR. DAVIS: We have looked at it, and we hear so many conflicting points of view. That is why we decided to buy a few and try on our routes particularly. We will take several routes and saturate them with these buses.

Maybe that will be the only bus, and it may be the alternate bus; we do not know about that kind of thing. That

has yet to be worked out in cooperation with our elderly and handicapped advisory groups, but we will pick some routes which have some greater concentration, but part of our problem is that we find a very wide dispersion throughout our entire county of this group that we are trying to serve.

We are not quite clear until we have tried and see just how many people will get to a bus stop who will need this. That is something that we really do not know the answer to. That us why we are going to try some things. I guess that is a little bit why we are reluctant to give you advice on do this at a particular date because I do not think we know enough about some of these elements yet.

MR. DOWNEY: Well --

MR. DAVIS: We are committed to moving ahead as best we can.

MR. DOWNEY: In testing these accessible buses on certain routes, have you made any provision or taken any look at what the accessibility is going to be to get to the bus?

MR. DAVIS: Yes, we are very much concerned. We have many routes where there is no point in putting those buses because there are no sidewalks, simply gravelways which people find a great deal of difficulty using with wheelchairs, although there are lots of people -- we have all stages of people.

We do not have just wheelchair people and people who can, in effect, run for a bus. We have all stages of people

in between and the accessibility issue relates to all of those issues, but we have many routes in our suburban areas, in particular, and some in our city in Seattle which cannot -- do not have the necessary access to the bus from the route, so we may have a restricted route we can try it on.

MR. DOWNEY: Finally, is your judgement as to the best means of proceeding either now or out in some future time with respect to the Seattle system essentially dependent on local conditions, or on what is available in the way of technology in terms of a national program?

MR. DAVIS: We have found that we cannot specify what our people ask us to specify. We probably have a higher level of citizen input than any place else in the country. We have approximately 600,000 bus managers in Seattle.

We find that when we design a bus system that way, we cannot buy the product, so we are limited by what is available, and we find that one bus system even of a semi-large size such as ours is not sufficient for manufacturers to design special equipment for us.

So we cannot get much ahead of the technology, but we do feel rather strongly that a lot more needs to be known before anyone says, "This has to be it." We think that information is not yet available to you or anyone else.

We think we need some experience, we need more observation of how various things work in various places before

anyone says this is the final answer. We generally feel, I think, instinctively, that we are to go in the direction of better and better accessibility on our routes, although, as I said, some routes it probably will be pointless on, but others it will be very meaningful. We are just trying a number of different things Mr. Downey. That is what we are trying to do.

MR. DOWNEY: Thank you very much. The hearing will recess, resuming at 2:00 o'clock.

(Whereupon, the hearing in the above-entitled matter recessed for lunch until 2:00 p.m.)

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AFTERNOON SESSION

(2:02 p.m.)

MR. DOWNEY: We will continue with the hearing. Call the next witness.

MS. ABRAMS: The agenda indicates that the time from 2:00 to 3:30 will be occupied by a group styled the low-floor ramped bus plaintiffs, and further indicates that there will be a total of nine speakers from within the groups listed on the agenda who constitute the low-floor, ramped bus plaintiffs.

There will, in fact, be ten speakers. Each of them will address a specifically defined issue within the overall issues of this hearing. The first speaker will be Sieglinde Shapiro, the president of Disabled in Action of Pennsylvania, Inc.

Ms. Shapiro will be followed by Mr. Hutton, executive director of the National Council of Senior Citizens. Ms. Shapiro will address the issue of the low-floor,ramped bus and is recognized for 15 minutes.

STATEMENT OF MS. SIEGLINDE A. SHAPIRO
PRESIDENT, DISABLED IN ACTION, PA.

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MS. SHAPIRO: Thank you.

My name is Sieglinde A. Shapiro. With my colleagues I am here on behalf of the low-floor, ramped bus plaintiffs, 12 national and state organizations of the elderly and disabled with a membership of 5 1/2 million Americans.

We are plaintiffs in Disabled in Action vs. Coleman, and amici curiae in Lloyd vs. Regional Transportation Authority, and United Handicapped Federation vs. Andre, as well as other related cases seeking to enforce the five times repeated mandate of the United States Congress requiring that all federally financed public transit, and buses in particular, be as fully accessible to the mobile disabled and elderly as the state of the art will allow.

We are pleased to present to you, Mr. Downey, and to the Secretary on the Ides of March our advice as requested in the Federal Register of February 16 this year on matters which are central to those pending cases and to the quality of life of 13.3 million elderly and disabled Americans who are handicapped by the longstanding high-floor multiple-step design of buses, continued even in the so-called advanced design buses, and central also to the quality of life of all present and potential transit users, to improve mass transit, and thus the is health of American cities and the price competition among the manufacturers.

In short, on the issues posed by the Secretary, our advice is as follows: A, that a low-floor, ramped bus specification be required for all new buses purchased with federal financial asssistance; B, that (1) the requirements should be effective as promptly aspossible and in no event later than one and a half years from May 27, 1977.

We assume that effective date refers to the date after which no grant award will be approved except for the specified bus and not to the date of delivery. Every possible occasion for federal leadership to advance the effective date by UMTA funded development of the common production components like axles, brakes, and tires, and, if necessary, by procurement of the earliest production buses of each manufacturer at a price that allows the early recovery of some engineering and production tooling costs should be exercised.

(ii) The floor height specified should be 22 inches sloping to 20 inches at the top of the front step with a 5 inch kneel bringing the top of the front step to 15 inches. A single step should be specified at the front door with a 7 inch height and 13 inch depth. Two 7 or 8 inch steps should be specified for the back door.

(iii) A five foot ramp deployed from the front door should be specified.

(iv) The development of production components like axles, brakes and tires is necessary.

(v) A federal leadership role in bringing the low-floor bus into production is necessary at several points: in mandating the low-floor into production in the first place; in expediting the date at which it is on the street by all means, for example, by financing the production development of component and early amortization of retooling costs.

C: The Secretary cannot encourage,as opposed to require,the low-floor, ramped bus into production. We have seen nine years of encouragement of the low-floor bus, beginning with the 1968 National Academy of Engineering Report, seven of them from '71, intensive and expensive encouragement -- $27 million worth -- but it has not produced a low-floor bus.

Even Administrator Patricelli in abandoning the Transbus said he would "continue to encourage the Transbus." We now clearly know as a factual matter how little "encouragement" is fated to mean.

The history of technological innovation in the bus industry is the history of non-innovation. That is one reason why the Urban Mass Transportation Act was adopted. That is why the Johnson Administration commissioned the NAE to convene a panel to specify the design characteristics of a bus to take the largest possible single step forward in bus technology and design within the existing state of the art, the National Academy of Engineering design.

That single step has now long since been identified, and easily two years ago it was shown to be technologically feasible. Surely it is clear from the events since that it will not be put into production unless it is mandated.

Unlike the train and the trolley, there has not been much romance about the bus apart from Simon & Garfunkel's "America." The bus has been a stepchild of American

transportation policy, receiving as little attention in policy as it has in romance.

Yet buses are the dominant form of public transit in the nation's cities. Eighty percent of the vehicles used in the urban mass transit are buses. Approximately 75 percent of the seven billion passengers who use mass transit use buses for 15 billion passenger miles of travel annually.

The impact of buses and their quality on the quality of urban life thus justifies significant policy attention to buses as does the amount of federal transportation dollars spent on them.

During the past six years $2 billion of the federal urban mass transit capital expenditures of $5 billion have gone to buses. The potential for expanded ridership and for still greater favorable impact is great.

From 42 percent to 52 percent of the people living in urban areas, exclusive of suburbs, live within two blocks of public transportation. At least 60 percent of elderly and handicapped people live within two blocks of mass transit.

Thus putting aside for the moment any legal mandate and the Congress' own binding resolution of policy considerations, if the policy question were to be addressed without constraint, good sense would require the mandating of the low-floor, ramped bus.

The National Academy of Engineering concluded in

1968 that the low-floor was "the most desirable means within the existing state of the art for improving bus transportation," rendering the bus "not only easy and comfortable to use but usable readily and without embarrassment by the physically and economically handicapped, the aged, the pregnant woman, the businessman, the young adult."

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In a research and development program conducted with the three American manufacturers, GM, AM General and Rohr, of full-size buses, UMTA expended $27 million to design, develop, test and evaluate a low-floor bus. The final reports on the Research and Development Project were released in April, 1976. The reports concluded that a low-floor, single-step bus, with a ramp that can be rapidly extended to provide easy boarding, is technologically feasible and constitutes an improved, maximally accessible, attractive and cost-effective bus which can now be put into production.

The benefits of the low-floor bus cited from DOT's and UMTA's own records, and other notes which we have in our testimony, include: Boarding time being halved; trip time reduced by 10 percent; revenue miles per driver's wage dollar increased 5 percent; ride quality approaches that of passenger cars; passenger, traffic and pedestrian accidents, and insurance costs, substantially reduced; on-board accidents by 35 percent for total insurance cost, reduced by 20 percent; ridership increased up to 10 percent, exclusive of the elderly and the handicapped. Improvements for the elderly will be significant only on the low-floor design; and the accessibility for the handicapped can only be achieved on a low-floor at a reasonable additional cost and without redcuing significant operational problems. Increased handicapped ridership alone will reduce

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operating deficits by 4 percent to 10 percent.

In addition to its benefits for the general rider-ship, the low-floor ramped bus is accessible to 13.3 million disabled or elderly Americans who cannot negotiate steps.

From time to time, the last UMTA Administrator was won wrongly to frame the accessibility issue as one of accommodating wheelchair users only. The low-floor bus provides access to both all wheelchair mobile persons, and to another 13 million elderly and handicapped persons whose disabilities range from arthritis, palsy, muscular dystrophy, to pregnancy, heart condition and respiratory ailments which render access by steps impossible, orprohibitively difficult, painful or risky. The low-floor is the key to all of those benefits,for they depend upon a low center of gravity, and upon safe and easy ingress and egress by ramp or a single step.

The Transbus project report compared the low-floor, ramped bus with a current new-look bus and with the RTS-2 on each of the benefit dimensions cited above, and found the RTS-2 very significantly short in each of them. The altera-tion of the RTS-2 floor height from 34 to 29 inches with a further five-inch kneel, does not alter that benefits analysis. The difference between a riding height of 29 inches and 22 inches, and between an effective entry floor height of24 and 17 inches, or 15 inches, which Ralf Hotchkiss, our technical advisor will address, is critical both for those

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benefits which depend upon center of gravity and those which depend upon ramping and a single low step. Only a low floor bus allows for effective use of a ramp to provide easy, safe and speedy boarding for elderly and handicapped passengers, and for everyone else as well.

In UMTA's studies, the capital cost of the low-floor ramped bus is expected to be 12 percent more than the current new look cost. The current bus, on base average price during the last full year of competitive bidding was $66,000. The increased cost of the RTS-2 was expected to be 5.5 percent. The single bid on the Houston Consortium's RTS-2 averaged at $88,000, a price which shocked the last UMTA Administrator, and rightly so.

The expected real cost increase for the low-floor bus is well within the bounds, given the benefits of the low-floor, and may be expected to actually come within bounds if price competition is recreated and maintained in the industry. While workloads will shift as they would with any truly new and improved bus, maintenance and repair costs remain constant on a unit basis. By a wide margin the low-floor, ramped bus accessibility for all fixed route transit buses is less costly than substitute separate systems. The latter would cost 3 to 5 times more than fully accessible fixed routes by UMTA's calculation, and 14 to 21 times more by APTA's calculations which show separate systems costing $1.7 billion annually.

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The net cost-benefits of the low-floor, ramped bus were quantified by UMTA only in terms of the public income supplements saved and the taxes paid by handicapped persons who can secure jobs when public transit is accessible. This calculation alone, under conservative benefit conditions of 100,000 persons deployed, shows a net favorable cost benefit ratio of at least 2 to 1 and as high as 7 to 1. There are, in addition, substantial benefits to the disabled and the elderly and to everyone else from the low-floor, ramped bus which were not quantified. As the Final Report of the Trans-bus Research and Development Project concluded: "the benefits of Transbus over interium buses and current production buses are rider-oriented. Transbus with the low floor will have the greatest potential for achieving a lasting impact on the public."

Thus the statement of APTA's officers this morning, as last May 5, advising that the highest technology, highest benefit leads us to a bus floor "no higher than 30 inches" is simply wrong. The technology and the benefits, by any sensible and decent reading which values better urban mass transit in the United States leads us to the low-floor, ramped bus.

The decision before the Secretary is not uncon-strained. The Congress itself has considered and weighed the values at stake in this decision and has resolved them into a mandate, five times repeated. All of the Department's and UMTA's analyses and their studies and reviews conclude that the

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maximally accessible bus is not a 30-inch bus, or a 34-inch bus or an effective 24-inch floor height bus but the low-floor, ramped bus.

Even the last Administrator of UMTA in the very announcement of his abandonment of the low-floor, ramped bus had to concede that "it is certainly true that floor heights of 22 inches or less would offer greater accessibility to the elderly and handicapped."

The Congress has weighed the costs and benefits of maximum accessibility and its concomitant effects upon mass transit generally. As it happens, those considerations militate in the same direction, the low-floor, ramped bus, but even if they did not, the decision would have to be the same by virtue of Congress' resolution of these considerations for a legally binding mandate.

The leadership of the Secretary is required if the highest technology accessible bus is to be a reality and urban mass transit is to be improved in all of this nation's cities. Without the leadership of the Secretary, the low-floor, ramped bus will not be produced. The same leadership is necessary if that bus is to be in service and its benefits available to all the people promptly.

Thank you.

MR. DOWNEY: Thank you. I have some questions but I have some feeling, looking ahead, they are going to be

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answered, so I think I will just allow you to proceed and I will interrupt if something doesn't get addressed by a later speaker.

MS. ABRAMS: The next speaker will be W. R. Hutton, Executive Director of the National Council of Senior Citizens. Mr. Hutton will be followed by Sharon Mistler from the National Capitol Area, Chapter of the National Paraplegia Foundation. Mr. Hutton will address the issue of the benefits to the elderly. Mr. Hutton is recognized for seven minutes.

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STATEMENT OF WILLIAM R. HUTTON,
EXECUTIVE DIRECTOR OF THE NATIONAL
COUNCIL OF SENIOR CITIZENS, INC.

MR. HUTTON: Thank you, Mr. Chairman. My name is William R. Hutton and I am the Executive Director of the National Council of Senior Citizens, an organization representing 3 million elderly people in the United States.

I am obviously here to talk about the transportation problems of the elderly in our society; problems of affordability; availability, and access. The lack of mobility of older people is at the very heart of their capacity to live independently and to participate fully in our society. This hearing will address one of the fundamental problems of transportation of the aged, that of access to the transit system.

Over the past five or six years, our government has paid no more than lip-service attention to the provision of

adequate transportation for the elderly and the handicapped. In May, 1970, the National Conference on Transportation for the Aging concluded, and I quote: "Lack of appropriate transportation constricts the lifespan of any person, limits his capacity for self-maintenance, restricts his activities and his contacts with other people, and may contribute to his disengagement or alienation from society and his experience of anomie. Adequate transportation is not only humane for the older person, it is of economic value to society in that it supports the individual's capacity for independent living and thus assists in postponing or obviating institutional care. Many older people indentify transportation as their most serious problem."

The 1971 White House Conference on Aging identified transportation as the most important need of the elderly after income and health; and that White House Conference recommended, and again I quote: "The Federal Government shall set minimum standards for the design of equipment and facilities and shall develop programs to assure the safety, comfort, and convenience of the elderly users of transportation services.

Transportation systems and services developed or subsidized by public funds shall be designed in an architecturally barrier-free manner in order to provide accessibility for all people."

Indeed, Congress also responded to the recognized need for barrier-free transportation with several mandates

on accessibility. However, all the legislation on the books cannot remedy the unfilled needs of senior citizens. Significant barriers to access are still the rule rather than the exception.

Nevertheless, the accessibility mandate was a landmark for the government recognition of the transportation problem that many senior citizens faced in trying to remain active members of our society. Far too many older people are unable, because of inaccessible transportation, to participate in programs designed for their benefits, such as nutrition projects, senior centers and employment programs, as well as in the usual activities that make our lives rich and fulfilling.

The Federal program for the support of urban transportation, which we have mightily supported ourselves, was created to serve the elderly and the handicapped. The late Congressman Wright Patman, the former Chairman of the House Banking and Currency Committee which reported the 1970 bill extending Federal financial assistance to urban mass transit, said, in presenting the bill to the House, "The first significant problem to which the bill is addressed is the totally inadequate mobility of significant segments of our urban population, especially the poor and the old."

All of us who ride buses have seen the struggles of an elderly person trying to negotiate the steps on our metrobuses and our hearts go out to them. So many of our older

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people suffer from arthritic knees. It's sheer torment for them to negotiate a step of more than three or four inches. But what most transit riders never see are the million or so elderly people who would use an accessible bus if they were provided an opportunity to do so, and this estimate originates with your transportation system center, applying extremely conservative criteria. Such a bus does exist and it is within our means to produce. This low-floor, wide-door, ramped bus would enable an estimated 13 million elderly and handicapped people to rejoin the mainstream of society. The low-floor bus dramatically improves boarding and alighting.

This has been quantified in your own report from extensive human factors, testing with elderly participants. The average speed of boarding and alighting for these individuals, ages 55 to 84 was 50 percent faster on the low-floor single step bus than on the standard production bus.

Elderly surveyed participants also indicated that the ease of getting on and off a low-floor bus was the particular feature of the Transbus they valued the most.

We can all think of the many services the aged need and society provides, many costing little money, but unless the elderly have a way to get to them, these benefits are lost. If the elderly are kept prisoners in their own homes, physical and mental deterioration are rapid and their needs for health services increase; and even more frustrating

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is the fact that fully 60 percent of the elderly in the urban areas live within two blocks of a bus stop, yet they must sit by and watch the rest of society use transit services that they themselves helped pay for.

While most senior citizens are mobile and function effectively within their communities, your own estimates suggest that one-third of aged Americans 65 years of age and over, are transportation handicapped. It's the design of these buses, particularly the many steps, that imposes handicaps on senior citizens. Special fares means nothing to those people who can't enter a bus in the first place because entry is either too difficult, too painful or too risky.

Exclude these people from transit services, and you condemn them to a life of isolation. Your own reports, comparing the current bus, the interim bus and the low-floor transit bus show that, "improvements for the elderly are significant only on the low-floor bus design." Changes from current bus design to the Advanced Bus Design bus are, as already stated, largely economic.

Mr. Chairman, I haven't much more to say, although I know it is going to be said in the rest. All I'm saying, really, now, if you would like to take the rest of my testimony, include it in the record, I would appreciate it. I know we have a matter of time as a problem, but on behalf of the National Council and the millions of senior citizens that we

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represent, I am asking you to grant these people the freedom that we all rightfully enjoy. Thank you.

MS. ABRAMS: The next speaker will be Sharon Mistler from the National Capitol Area the National Paraplegia Foundation. Ms. Mistler will be followed by Frank Bowe of the American Coalition of Citizens with Disabilities. Ms. Mistler will address the issue of the benefits to the disabled and is recognized for seven minutes.

STATEMENT OF SHARON E. MISTLER,
BOARD OF THE NATIONAL PARAPLEGIA FOUNDATION,
WASHINGTON AREA CHAPTER

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MS. MISTLER: Thank you.

Bill Hutton mentioned the 1971 White House Conference on Aging. The first White House Conference on Handicapped Individuals will take place this year, in the month of May, 1977. The White House Conference thus coincides with the Secretary's May 27 decision date on the low-floor, ramped bus. We hope the Secretary will see fit to announce this decision at that conference, for this decision will so dramatically affect those participants' lives.

Six million, four hundred thousand disabled people, half of the disabled people in the United States, find steps entirely insurmountable or surmountable only with substantial difficulty. Volumes of studies, including the recent "Comprehensive Service Needs Study" conducted for HEW shows dramatically, and our own experiences confirm, that accessible

transit is vital to our independence. From another perspective, those studies show the purposes of many governmental programs, the effectiveness of much spending are frustrated by the inaccessibility of public transit. Vocational rehabilitation, public education, employment and medical services are designed to undergird independent and productive living by disabled citizens. Where those programs are effective in their own terms, very often -- up to 6.4 million times the number of transportation handicapped -- an independent and productive life is stopped by the inability, because of the design of transit, to travel about freely or at all.

Although 86 percent of the disabled people of labor force age, 17 to 65, have the ability to work, the labor force participation rate for the diabled is only 44 percent compared to 65 percent for the general population. Access to transportation is a necessary condition for employment for all disabled persons. Urban mass transit routes are laid out, of course, to maximize coverage of job destinations, and 60 percent of the urban disabled live within two blocks of transit routes. For some 13 percent of the disabled population, or over a million seven hundred thousand, inaccessible public transportation is the major factor in their unemployment.

The employment of disabled adults resulting from accessible public mass transportation would significantly increase their standard of living and produce a substantial

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net economic benefit. The average annual net income for employed disabled adults is $8,000, more than double the estimated average combined payment of $3,000 per year in federal and state income subsidies received by the unemployed disabled individual.

In addition, the reduction of governmental income support payments and generation of federal and state income taxes resulting from the disabled adults finding jobs would create a net economic benefit of $300 million to $500 million annually for every 100,000 disabled persons who join the ranks of the employed.

These economic benefits alone, conservatively based on the employment of only 100,000 people, yield a favorable benefit-cost ratio on the low-floor, ramped bus of 2:1 to 7:1. In the event, given Congressional requirement in Section 503 of the Rehabilitation Act of 1973 that all federal contractors take affirmative action to employ handicapped people, greater benefits -- even counting just employment -- may be expected.

In addition to the quantified employment benefits there are many benefits to disabled people from the low-floor, ramped bus that were not quantified and many others which may not be quantifiable, but are nonetheless important.

As your Impact Report shows, there would be social benefits, as well as economic benefits,from extending to disabled persons the equal opportunity to work, to study, to

participate in recreational activities and also from the increased contribution to community activities of the disabled. Increased mobility would provide the opportunity for integrated socialization -- socialization absolutely necessary for a healthy self-image and the ability to perform.

As the Report suggests, the number of handicapped persons who would use public transit for the very first time as a result of the low-floor bus, provides a proxy for the social and psychological benefits of the program. The Report conservatively estimates that with the low-floor, ramped bus one million four hundred thousand to one million five hundred thousand disabled persons will,in fact,use public transit for the very first time.

The benefits to the disabled depend, of course, as your own studies conclude, upon the low-floor and are not achievable without it.

Thank you.

MR. DOWNEY: Could I ask one question at this point? Several of the conclusions that you have reached have to do not so much with the experience or the benefit of riding transit itself, but of what happens at the destination in terms of employment or social opportunities. Can those be equally well achieved by a special service?

MS. MISTLER: No, it depends on what area. You are talking about my entire lifestyle, or anybody else's entire

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lifestyle. Direct me more specifically on what you want to know as far as the specific area of my life. I am talking about integrated socialization; I'm talking about employ-ability; I am talking about being able to spend money. I am not talking about an eight to five dollar ride system. How do I get home if I want to work late?

MR. DOWNEY: I have a problem of getting home if I work late, too.

MS. MISTLER: All right, what about my waiting list if I go to Denver? I can't take the bus today if I go to Denver. I've got to get my name on a waiting list. You know, look into your separate systems before you hit me with it.

MS. ABRAMS: The next speaker is Frank Bowe, Executive Director of the American Coalition of Citizens with Disabilities. Mr. Bowe will be followed by James J. Raggio of the Public Interest Law Center of Philadelphia. Mr. Bowe will address the issue of the benefits to all transit riders, and is recognized for five minutes.

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STATEMENT OF FRANK G. BOWE,
EXECUTIVE DIRECTOR OF THE
AMERICAN COALITION OF CITIZENS WITH DISABILITIES

MR. BOWE: My name is Frank Bowe. I am Director of the American Coalition of Citizens with Disabilities.

I would make some comments and then I would like to reply to Mr. Downey's question of a moment ago.

The story is told of a large mid-western university

which installed curb cuts throughout the campus. There was much discussion, and in fact, a serious survey was made and published about why this was done. The maintenance crew said it was so that they could move heavy equipment easily. Students said it was so that they could bicycle freely. Junior faculty said it was so that they could push baby carriages. Jocks said it was so that they could jog. It is a fact, although not always readily recognized, that whatever improves the world and makes it functional for the disabled and the elderly, makes the world for me and makes the world for you, makes the world for everybody in this country better and that is what we are trying to say here with the Transbus. I think it proves the point that we are trying to make.

The modifications that you make with the low-floor ramped bus are not only going to help those of us who are disabled and have special needs, but it will contribute in many ways, I think that would be surprising. I think that many don't realize or don't recognize and that what they are saying now is that these are special services for special people. The answer is: "Try it, you'll like it".

(General laughter.)

The answer is, you may be surprised at what it may do for you.

We've had experiences, for example, with ramps. We put in ramps so that a person in a wheelchair can get there.

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But you would be amazed at how many people ignore the steps and take the ramp. They are perfectly healthy. They are quarterbacks in the National Football League, and they go on the ramps.

I think this is something we need to look at. This is not something that is special. Mr. Downey, we are not talking about creating something that is special, something that is separate, something that will handle your special needs in a very special way because you're very special people. This is completely contradictory to everything we are trying to say here today.

The National Academy of Engineering identified in 1968 the low-floor as the most desirable and significant advance possible within the present state of the art to improve bus transit. In 1975 during the testing of the Transbus prototypes in revenue service in four cities, they had 11,000 riders and potential riders surveyed. These people were asked to indicate their satisfaction and preference for 31 major features of the Transbus. Of all the items investigated, including body design and the overall appearance, the one thing that most facilitated entry and egress was the low-floor. On a scale of 100, the seven inch interior front step and ease of getting on and off scored 92 and 88 percent, respectively.

The benefits of the low-floor, ramped bus -- unique to and measurably more than from the ADB -- were recited by

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Ms. Shapiro and are in your testimony. I will not refer to them again, here. I do want to make the point that the benefits are rider-oriented benefits. We are not talking about fancy technological innovations for their own sake; we are talking about a very unusual development in transportation; we are talking about things that make it easier to ride on and make it more fun to ride on; we are talking about things for the rider, not for the capital, not for the owner, not for the city, but for the rider. This is a key point.

The comfort and the ease of ingress and egress and of the ride itself depend on the low floor, and so do the derivative transit system benefits: trip time reductions up to 10 percent; the improved service dependability and driver productivity; the safety and insurance cost reductions up to 20 percent.

If there were an association of urban transit riders, and there is not, but there is an association of disabled people and that's why I'm here today, but if there were an association of urban transit riders, I think they would be here with me today. They would be saying the same thing that I am saying to you, that I would ask the Secretary to mandate the low-floor, ramped bus.

In lieu of their presence here perhaps the most eloquent testimony in addition to the survey of the 11,000 I referred to earlier, is the Department's projection, uniquely

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for the low-floor bus, of up to 10 percent increased ridership, exclusive of the elderly and the disabled. Now, that comes right back to the point I made with you before. We are talking about increase in ridership among people who are not disabled, who are not elderly, because you are designing features for the rider and you are increasing that to your mass population, in addition to which you are providing services where services were not in existence before for people who do have special needs. You are doing this together in an integrated, very elegant system. That is why we support the low-floor, ramped bus.

Thank you.

MR. DOWNEY: Thank you.

MS. ABRAMS: The next speaker will be James J. Raggio from the Public Interest Law Center of Philadelphia. Mr. Raggio will be followed by Mr. Ralf Hotchkiss from the Center for Concerned Engineering. Mr. Raggio will direct himself to the issue of legal mandate and is recognized for seven minutes.

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STATEMENT OF JAMES J. RAGGIO,
PUBLIC INTEREST LAW CENTER OF
PHILADELPHIA

MR. RAGGIO: The Public Interest Law Center is counsel to the low-floor, ramped bus plaintiffs in Disabled in Action of Pennsylvania, Inc., et al. v. Colemen, et al., and for the same organizations who have appeared as amici curiae in the Lloyd case before the 7th Circuit Court of

Appeals, in the Andre case before the 8th Circuit Court of Appeals and in other related cases seeking to enforce the five times repeated mandate of the United States Congress requiring that all federally financed public transit -- and buses in particular -- be as fully accessible to mobile disabled and elderly people as technology will allow.

The first of the many transit access cases to reach a Court of Appeals was decided by the 7th Circuit on January 18, 1977. In that case, the Lloyd case, the Court of Appeals held that Section 504 of the Rehabilitation Act of 1973 imposes affirmative duties upon federal transportation officials and extends affirmative rights to all transportation handicapped elderly and disabled, which can be enforced in the courts.

In particular, the Lloyd court held that Section 504 requires that mass transit be adapted to accommodate the mobile disabled and the elderly and that "the provision of unnecessarily separate services is discriminatory." The Court of Appeals sent the case back to the District Court "for reconsideration in light of Transbus developments."

I will not here parse Section 504 further or the other four Transportation Act provisions which we believe require the Secretary to fund only buses which are maximally accessible to the elderly and disabled, as fully accessible as the technology will allow. The analysis of the plain

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meaning of the five statutes and of the legislative history is fully set out in the amici curiae briefs submitted in the Andre case and now pending in the 8th Circuit Court of Appeals. We will submit a copy of the Andre brief and its Appendix for the record of this hearing.

I would, however, like to briefly lay before you the history of the Department of Transporation's own contemporaneous interpretation of the five statutes -- an interpretation abrogated by the UMTA Administrator in his abandonment of the low-floor, maximally accessible bus last summer. Ignored and violated as it was in practice, the Department's legal reading of the five statutes is and has been that they require federal financial assistance for the purchase of buses be expended only for buses which are as fully accessible as technology will allow.

In the first authorative construction of the accessibility mandate by the Department of Transportation, Acting General Counsel, J. Thomas Tidd, concluding a careful analysis of the statue, said:

"Universality was intended .... The reasonable objective of this statute would here seem to be to extend use of mass transit to those elderly and handicapped persons whose conditions otherwise permit of sufficient personal mobility and independence as would make use of such services a reasonable expectation. A paraplegic, for example, who, although

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confined to a wheelchair nevertheless has the intelligence and independence to effectively function in most day-to-day activities, would clearly be among those who could 'reasonably expect' to be able to use mass transit facilities and services. Such an individual can be employed, can shop, dine out, or visit friends; he must, under the statute, be given the opportunity to effectively utilize the relevant mass transit facilities and services in order that those abilities might be realized. Also, note that .... (thus) the substantial compliance rule becomes a dynamic concept; as knowledge and technology advance, those who might reasonably expect to use mass transit facilities and services increase, and the statutory obligation thus expands."

In its 1975 policy statement on introducing the low-floor bus into nationwide service, after announcing the scheduled completion of a performance specification based on the best features and characteristics of the Transbus proto-types, the Department stated that "grantees will be expected to use this performance specification when purchasing buses with Federal assistance."

To the Bus Technology Committee, on January 14, 1975, asking if the policy statment meant that all buses were to contain low-floors, Mr. Herringer referred to the 1974 Highway Act and other legislation. The gist of his statement was that when the Transbuses are available they will be the

only buses available for purchase with capital grants. In response to further questions both the UMTA Adminstrator and Chief Counsel indicated that they had no choice due to current legislation.

At that time, Mr. Herringer had recently testified before Judge Richey under oath stating: "my understanding, and from my lawyers, generally speaking, in the area of access for the elderly and the handicapped, accessibility, was that we were to do everything -- according to the law, we were to do everything feasible to provide total accessibility to the elderly and the handicapped. If it were feasible to put out a low-floor bus, then I thought we should mandate a low-floor bus."

In affidavits in eight lawsuits wherein the accessibility mandate was an issue, the Department submitted under oath that "as a result of the Transbus Research and Development Program . . . . UMTA will develop and promulgate by regulation a standard specification for use by its grantees in transit bus procurement which will provide to elderly and physically handicapped persons mass transportation which they can effectively use."

Thus many of the matters addressed in this hearing are matters which have been precluded by the Congressional mandate. The only legal question open here is what bus is the maximally accessible bus within the state of the art.

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That question is, as a factual matter, not really open, for the Department's own reports establish beyond any doubt that the maximally accessible bus, given the state of the art, is the low-floor, ramped bus.

The Congress has considered the cost question, for example, and resolved in favor of maximum accessibility. Particularly is this clear since the cost of the maximally accessible low-floor, ramped bus is well within reasonable bounds, as compared with the current bus and the RTS-2. The Congress has considered the substitution of separate specialized services for fully accessible fixed routes and has, on several occasions, resolved in favor of fully accessible fixed routes.

Indeed, on the only question of fact of relevance here, the last Urban Mass Transportation Administrator admitted that the low-floor, ramped bus is the maximally accessible bus in his very statement of July 27, 1976, in which he abandoned that bus. He stated: "It is certainly true that floor heights of 22 inches or less would offer . . . . greater accessibility to the elderly and the handicapped, one less front step and easier accommodation to a less expensive ramp device . . . ."

The last Administrator had long since conceded to the Congress, as he could not have escaped doing in light of the Transbus Project Reports released last April, that the

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low-floor, ramped bus was well within the state of the art and, pending only effectuation of the mandate, would be on the market. He said: "After testing prototypes, the Trans-bus program produced a specification calling for a 22 inch floor . . . . Although no manufacturer of full-size transit buses presently offers a lift or a ramp option for its buses, the new bus designs that are about to come on the market could offer that technology."

MR. DOWNEY: Thank you.

MS. ABRAMS: The next speaker will be Ralf Hotchkiss, Director the Center for Concerned Engineering. Mr. Hotchkiss will be followed by Deborah Yager of Disabled in Action of Pennsylvania, Incorporated. Mr. Hotchkiss will address the issue of the maximally accessible bus given the state of the art and is recognized for 20 minutes.

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STATEMENT OF RALF D. HOTCHKISS, DIRECTOR,
CENTER FOR CONCERNED ENGINEERING

MR. HOTCHKISS: I am Ralf Hotchkiss. I am Director of the Center for Concerned Engineering. I work, also, with Disability Rights Center. I received my training as a machinist and engineer in an industrial apprenticeship program in Rockford, Illinois. For the past ten years, I've worked as a mechanical and electrical design engineer, and I have a B.A. in Physics from Oberlin. I have co-authored with Ralph Nader, "What to do with Your Bad Car". It's an action manual for lemon-owners, as well as Nader Reports on the

Volkswagen, the Mobile Home, Hearing Aids, and others. Another thing I've done is worked in architectural barrier removal in antique buildings. Antique buildings and antique buses are quite similar, you have to break a lot of rules in order to get into both, but accessibility is possible in either case.

A 22 inch bus floor height is available within the present state of the art. The major factor in determining bus floor height is the diameter of the front wheels. The smaller the front wheels are the lower the floor can be. If you will turn to page 37(a), you will be able to follow the discussion easier. Check the picture there.

The smallest wheel available that will support the front end of a full size city bus has an outside diameter of 33 inches. This is assuming that you are going to use two wheels on the front of the bus, and it gets pretty complexed if you use more than two for steering. It is the J50C-16.5 or equivalent tire which will support the over 6,000 pound weight exerted by a fully loaded bus.

When the bus is moving, about five inches clearance is needed above the wheel to allow it to bump up and down over rough spots. When the bus is stationary it can be lowered or "kneeled" until the wheel well sits on top of the wheel. This lowers the entire bus by about five inches.

In order to maximize the number of seats on a bus,

a seat is placed on top of the wheel well. The seat and wheel well add another four inches to the 33 inch height of the wheel when the bus is in a kneeling position. The seat is thus 37 inches off the ground when the bus is kneeling. The distance from the seat to the floor can be no greater than 20 inches to insure passenger safety and comfort. Your feet need to be on the ground. This leaves 17 inches from the kneeled floor height to the ground. That is the top picture there.

When the bus returns from its kneeled position to its traveling position, the distance from the floor to the ground increases to 22 inches.

There is no doubt that 33 inch tires which can carry a load of over 6,000 pounds are within the state of the art. There are,I understand, available in Europe -- the 275/70 R 17.5 low cross-section tires manufactured by Phoenix Gummiwerke AG have a 33 inch diameter and an adequate load capacity. Those are now being used in Europe on articulated buses. It is thus clear that the present unavailability of this size tire, outside diameter tire, from U.S. manufacturers can be explained by the lack of demand. There is no reason that the tires could not be available in time to meet an effective date of the Urban Mass Transportation Administration requirement for a low-floor bus.

In June of 1976, General Motors told the House Public Works and Transportation Committee that "serious tire problems

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have occurred in just the limited operation of the Transbus vehicles -- all of which use these very small diameter experimental tires." I understand that the early failures which did occur were due to specific and identifiable defects, lay-up problems because they were laid up by hand in sort of a test run. These defects, in fact, were corrected and the subsequent tire performance has been satisfactory if not excellent.

Ground Clearance: In June, 1976, General Motors stated before the House Public Works and Transportation Committee: "A low-floor bus can result in lower underbody clearance. Thus compared to a current bus configuration, a bus with a low floor could be less capable of negotiating ramps and approaches to hills in some parts of the country." APTA again has raised ground clearance as an obstacle to a low-floor bus.

The low floor bus as built to Transbus specifications has the same ground clearance as the current General Motors and Rohr buses. Indeed, the Transbus ground clearance is better than the current AM General bus and better than the RTS-2, proposed by General Motors. A diagram showing low-floor bus ground clearance is on the next page.

Maintainability: APTA again this morning raised maintenance problems occurring in the Transbus prototypes as an objection to low-floor buses. The Transbus prototypes were

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put together to test the operation of the low floor bus, and were never intended to be maintained by normal repair shops over a long period of time. There are no insurmountable technical barriers to arranging the bus components for easy service. Hopefully, though, they won't try and prove their point by making them hard to maintain as General Motors did with their seatbelt designs and the buzzers, proving to everybody that, in fact, they hate seat-belts.

In the testimony this morning, APTA opposed a mandated availability date for Transbus with the objection that the equipment was less than proven and unreliable. In practically the same breath, APTA recommended to you that the Advanced Design Bus should have studies made of its operational experience and plans be formulated as to the practicality of conducting a developmental program regarding whatever suspension system, tires, power train or other elements need refinement on the old-style high-floor bus. APTA has taken the confusing position that studies of the Advanced Design Bus will lead to the development of an adequately tested Transbus. We hope you understand better than APTA that the Transbus and the RTS-2 are basically different bus designs.

MR. DOWNEY: May I ask one question?

MR. HOTCHKISS: Yes.

MR. DOWNEY: Is that the same, in your opinion, with the Rohr 870 and its Transbus?

MR. HOTCHKISS: Yes.

MR. DOWNEY: Those are also different animals?

MR. HOTCHKISS: That is basically the 30-year old, new look bus design. In fact, the basic drive train comes from a previous bus, first put on the road in its basic configurations in the '40's.

On the next page, you will find a 1968 advertisement by General Motors showing a photo of their operating prototype of the RTX. At that time, GM described the low-floor as "the shape of things to come." There is no valid technical reason for General Motors' present opposition to the low-floor bus.

Maximum Access: Given that 22 inches is currently the lowest practical floor height, again going lower than 22 inches, doesn't work with any other current available tire type, I would like to describe the best method of accommodating the largest segment of the population at the lowest cost and in the safest and most efficient way possible.

The basic bus floor of 22 inches is dropped to 17 inches by the kneeling feature. The entranceway can be dropped about two inches more through the use of special tricks such as a gentle ramp in the floor near the front of the bus. To provide maximum access for the disabled and elderly, then, an effective entryway height of 15 inches is possible. General

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Motors is simply dead wrong in their assertion this morning that a 27 inch floor height would in any way serve the needs of the elderly and handicapped.

Ramp Entry: Ramp slopes must be gentle, or at a low angle, for a wheelchair rider to enter or exit a bus with complete independence. If the angle becomes steeper, assistance may be needed, depending again on the wheelchair rider and the strength and agility.

The slope at which assistance is needed varies from person to person, although generalizations can be made. If you will check the picture on the page after next, it will help you follow the discussion of the usability of various ramp grades.

A study by RRC International for UMTA, found most wheelchair riders to have difficulty over a 10-degree slope and to need assistance over 14 degrees. A slope over 18 degrees was found to be hazardous even with assistance.

To put this into better perspective, the ramp in the cafeteria in the basement rises five and one-half inches in a 27-inch travel; this is a one in five rise or a 20 per-cent rise or a grade of a little over 11 degrees. This is not the easiest kind of ramp, but you will notice that all the witnesses made it back from lunch.

(General laughter.)

A five-foot ramp extending from a 15-inch-high

entranceway to a six-inch-high curb would slope 9.4 degrees -- You will notice that in the second column of the chart, at the top -- assuming the roadway to be level, if there were no curb, the slope would be 14 degrees. Again, you may have to add a few degrees here for crowned roadways. The 14-degree slope is reasonably safe, though many wheelchair riders would require assistance. Shortening the ramp to four feet would bring the slope at street level, without a curb, dangerously close to the 18-degree-danger-level found in your RRC Ramp Study.

While a four foot ramp could be fit most easily under the entranceway floor without folding it or doing anything fancy, a ramp longer than four feet would require some special extension, such as telescoping. Once telescoping has been introduced, it is possible to extend the ramp length even further. At seven feet, for example, the slope to ground level would be close to 10 degrees, which again, most wheelchair riders could climb without assistance and without even difficulty.

The telescoping ramp could be controlled by the driver to adjust to different boarding situations. While a short ramp extension could be used for normal curbs, the long ramp would be available for street level entry and to span the gap whenever the bus is unable to pull right up to the curb. Climbing the curb, if you get out of a bus in a wheelchair, is

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a toughy, given that most curbs aren't yet ramped.

A handrail can be included as part of the ramp mechanism. This would enable ambulatory disabled and the elderly who would need the handrail for safety to board the bus more readily. The handrail would enable those who cannot manage steps at all to board the bus as well. While exact figures are not available, this group makes up a very significant portion of the 13 million disabled population.

Another benefit of the ramp is that it can be used by the general public, and can shorten boarding time. In the tests with the Transbus prototypes, boarding times were significantly reduced, primarily because the buses had fewer stairs. A switch to ramps reduces the number of stairs to zero, and thus further shortens boarding time. When a wheelchair passenger is followed on the ramp by several walking passengers, the time lost in deployment of the ramp can then be made up by faster overall boarding time.

Step Size: Extensive research into the dynamics of climbing and descending stairs has shown that a maximum riser height of seven inches and a minimum tread depth of eleven inches are optimal for safety. Risers over seven inches were found to cause more stumbling while the test subjects were descending the stairs than while they were ascending. In other words, a short step is more important on the way down than on the way up, just the opposite of what the bus manufacturers have

been telling you.

With an effective floor height of 15 inches in the front, a low-floor bus can have an initial step of two inches from a six-inch curb followed by a single seven-inch step inside the bus. The first step would be eight inches up from street level, if there were no curb.

Because the low-floor bus has only one inside step, the tread depth can be wide enough to ensure safety.

The high-floor bus has none of these advantages; it must instead have multiple inside stairs which are higher and shallower. There is just not enough room to make them very wide. Entry and exit are therefore made slower and more dangerous. The vestibule in the high-floor bus is smaller and thus more crowded around the coin box during peak use.

The high floor bus can only afford wheelchair access with a lift rather than a ramp. The lift can accommodate only one wheelchair rider at a time and takes more deployment time than a ramp. None of the other passengers can use that entrance while the lift is in use. That would slow down, further, the overall boarding time of a group of passengers, including one wheelchair rider.

In addition, the lift is much more expensive to purchase and maintain and is dependent on electric or hydraulic equipment for its operation. The ramp can, if designed right, be operated manually. You can pull it out unloaded and set

it down. Well, of course, you couldn't operate a lift manually. You would be lifting up to a 300-pound electric wheelchair rider and a machine. The ramp, then, in case of a breakdown of an automatic system, would still work.

It is my conclusion that the Congressional mandate for city bus systems to be accessible to virtually all of society is fully attainable within the state of the art. An immediate UMTA mandate for a 22-inch floor height would be the most cost-effective way of meeting this goal fast enough to satisfy the pressing need of the disabled and elderly who are presently completely excluded from public bus transit.

Thank you.

MR. DOWNEY: I would like to ask a question about the ramp. Defining a ramp operation of a city in its regular city bus system, do you foresee problems with actual deployment in a traffic situation, and secondary, with the existing drivers, getting reports already that the kneeling feature that is supposed to be a boarding aide, is not being used, a question of a ramp on a bus that is trying to make a stop in traffic, whether it could be effectively deployed?

MR. HOTCHKISS: Several aspects in answering that. One, as far as the ramp shooting out into pedestrians and scaring sombody, the specs for the ramp in the Transbus were very similar to the specs for the elevator doors in a standard, modern building. They would stop at a ten-pound or

less force and they could be made better than elevator doors, easily, so they would sense an impact with anybody and stop automatically regardless of how careful the bus driver was being at the time or how well he could see.

The business of stopping in traffic -- often they can't pull right up to the curb. That is why I am proposing a variable extension up the seven-foot ramp. Seven feet will go past the average parked car; maybe even an eight footer would be better. A bus can usually nose in a little bit. My experience riding buses is that usually they can nose in a little even though there is a car partly blocking the bus stop. They can pull in some. The variable extension of the ramp would assist the driver in suiting the ramp to a particular purpose. If the bus driver couldn't pull right up to the curb and if the curb was covered with people, the bus driver wouldn't need to extend the ramp very far, no further than the early Transbus ramps were extended, and so, people would not have to move very much to get out of the way.

MR. DOWNEY: The telescoping ramp that you're describing is not, to my knowledge, available technology. Is this something that would have to be developed?

MR. HOTCHKISS: Right, if there is serious questions, I can probably find you a welder to work one up over the week-end. It is not really space age technology by any means. It's farm technology.

MR. DOWNEY: Can you define, among the various scales of ramps that you described, the optimum in terms of slope? We had testimony this morning relating to various degrees of a slope.

MR. HOTCHKISS: Like the one in 12 architectural standard which is a very, very gentle slope. That's designed for a perfect environment which doesn't exist in a lot of cities, due to acts of God, like the formation of hills. The one in 12 slope environment would be a perfect place for somebody who was a less than average wheelchair rider to live with no assistance and without -- and also somebody that had problems with endurance to cover fair distances.

The situation on a bus is different. There are always people there. No one has yet invented an unmanned bus, and the ramp is very short; so if more wheelchair riders could make it up, the endurance wouldn't be a problem there. The problem would be only absolute strength.

MR. DOWNEY: At what particular grade?

MR. HOTCHKISS: Up to 14 degrees.

MR. DOWNEY: That's sort of a 50 percentile operation or a 75 percentile or what?

MR. HOTCHKISS: Up to 10 degrees would be probably a 90 percentile.This, again, is real rough, based on the RRC studies and there is not a good overall sample. But I would say, 10 degrees, probably a 9 th percentile.

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Electric wheelchairs, driven by more and more quadriplegics, will make it up a 10-degree slope, if they are made by the major wheelchair manufacturers.

Between ten and 14 degrees, it goes down from probably 90 percentile to the 10th percentile, but it is still pretty easy to push somebody up a 14-degree ramp. The average passerby could handle that.

MR. DOWNEY: Would that be, again, a presumption that technology would be in place that would require the assistance of a passerby, or again, would it be a presumption that the bus driver --

MR. HOTCHKISS: That is for time and legal precedents to sort out, I suppose. There is no accessible system which will not require assistance in a significant proportion of cases. For example, the lifter on the edge of any lift or ramp requires more strength to boost the wheelchair over than a 10-degree ramp. This comes from my own studies for the VA in writing standards for Stort output of electric wheelchairs. We found that little bumps are tougher to get over than gentle ramps or even medium steep ramps which is a 10-degree.

MR. DOWNEY: The little bump is a feature of the 10-degree lift?

MR. HOTCHKISS: Of anything that is portable, so there is no perfect situation. This, I think, especially looking at the ambulatory disabled people who can walk but can’t climb

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steps and looking at the problem of the curbs which the ramp could better cross in most situations, is a far better overall compromise. It is much cheaper and more dependable besides.

MR. DOWNEY: Cheaper and more dependable than?

MR. HOTCHKISS: Than any lift situation, for example. But again, the most important thing is the low-floor, overall.

MR. DOWNEY: In talking about the floor heights, as you say, from your point of view, the low-floor is by far the most desirable improvement. Is it desirable to the exclusion of any intermediate floor height;in other words, as between the current design and the 22-inch, is there any intermediate point that is worth developing?

MR. HOTCHKISS: Because of the potential for a usable ramp which again is an alternative that I think could and would be explored by anybody who was developing it, with cost benefit in mind, none of the intermediate will help at all.

MR. DOWNEY: Your package is the ramp and the low-floor?

MR. HOTCHKISS: Yes. One of the big problems with the lifts that have been proposed, for example, in the GM bus, is their proposed 48-inch size. That will exclude anybody who rides a wheelchair with a reclining seat back or an elevating foot rest. That will exclude most riders of electric wheelchairs, and that is an ever growing number as more serious disabilities become survivable and the people become mobile.

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Another problem with some of the proposed lifts is that you have to back down to get onto them. Most wheelchair riders can't handle them, and even if they can, the agility and work it takes to back over even a little half-inch riser is much much more to go over than going forward.

MR. DOWNEY: Thank you very much.

MR. HOTCHKISS: You're welcome.

MS. ABRAMS: Our next speaker is Deborah Yager from Disabled in Action of Pennsylvania, Incorporated. Ms. Yager will be followed by John Lancaster from the Paralyzed Veterans of America. Ms. Yager will address the issue of the market and is recognized for eight minutes. It might be of interest for all of you to know that of your 90 minute allotment, you are running four minutes ahead of schedule.

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STATMENT OF DEBORAH YAGER,
MEMBER, DISABLED IN ACTION
OF PENNSYLVANIA

MS. YAGER: Thank you. My name is Deborah Yager. I am a member of Disabled in Action of Pennsylvania.

There is nothing new or strange, contrary to what APTA's officers or GM seem to be saying this morning, about having a single basic transit bus. Historically the transit bus industry has had only a single design bus. The basic new look bus has been on the market for 19 years. The only question is who shall choose the bus and will the bus be the most improved, maximally accessible bus.

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It was precisely because the small bus market and its oligopolistic structure was not conducive to innovation in bus technology that the Johnson Administration commissioned the National Academy of Engineering to develop major improvements in bus design to exploit the present state of the art. For the same reason, Congress had enjoined UMTA to improve mass transit, and in 1971 the Transbus Project was launched.

The oligopolistic market structure does not support product innovation. If any further proof of that were necessary, consider only that for many years now Rohr and AM General have wanted to produce the low-floor, ramped bus but have not been able to. AM General has called it, "the best possible bus which will make a greater contribution to the realistic solution of urban mass transportation problems than any other course available." "The low-floor", added AM General, is within present capability and can and should be implemented. It is the single most important proven development to come from the Transbus Program". Rohr has called it, "the very best for the American public transit riders; the design effort and the demonstration of the prototypes have proven its feasibility."

It is not to the contrary that General Motors has sought to produce an"advanced design bus."

The ADB represents some small improvement, but it lacks the important service and accessibility advancing features and offers, in sum, not much more than a short-lived cosmetic

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gain, certainly not significant innovation.

I might point out here that the 29-inch floor, RTS-2, was introduced by General Motors, but only offered in response to a misguided Federal mandate.

There is no evading the impact of any Secretarial decision, or the responsibility which comes with paying 80 percent of the capital costs of new buses. Whatever the Department will finance will be the bus. If the Secretary decides upon the 29-inch floor, he will, in effect, be mandating the ADB/RTS-2. Only by the most contorted use of the language could that outcome not be called a mandate. It would be a mandate no more and no less than if the Secretary chooses the low-floor, ramped bus. Perhaps a salient difference still remains: if the low-floor, ramped bus is chosen, the choice will be responsive to the long-stated wishes of two manufacturers; if the ADB is chosen, it will be responsive to the equally long-stated wishes of only one.

For a few short years after AM General's entry into the market in 1971, there was price competition around the new look bus. Given a common high technology bus, the discipline of price competition seems to be possible even in this industry chronically on the verge of shifting from oligopology to monopoly.

The statutory fabric of the Urban Mass Transportation Act encompasses three values, namely, improved mass transit, that is Section 1602(b)(1); maximal accessibility, Section 1612

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and the four other sections pertaining to that and price competition, Section 1602(a)(1). Each of these values requires that the low-floor, ramped bus be mandated. Although local choice can function, and should, on many matters of transit policy, in light of the economics of the bus industry and its market and given the statutory injunctions, local choice on the question of what the basic bus shall be is a hollow mockery.

Thank you.

MR. DOWNEY: In one of the earlier statements of your group, the conclusion was reached that, given the history of the bus industry, there has never been more than a single basic bus. The economics of the industry insist that there be only a single kind of bus and some of the comments we heard this morning was that the demand would really be there for the low-floor bus as the single bus. Do you have some explanation, really, as to why, in your view, this has not come about?

MS. YAGER: I find it quite irrational, in fact, that it hasn't. I hesitate, though, to be amused by it. I do wonder though if it doesn't bring us very close to some similar situations we have faced in the past history of this country, and that is the effect of prejudice upon large segments of the general population, compared to different things.

In talking through this issue with you today, we've talked a lot about handicapped and elderly people who can't go out of the house; who are not integrated; who do not have

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as Ms. Mistler said, an integrated socialization opportunity. Very little is really known about what is going to happen when buses are accessible to elderly and handicapped people. It is very much easier to come up with long horror stories of how much slower bus service is going to be than -- in response to something that is an unkown -- than it is to consider how much better bus service would be for absolutely everyone. I hope that answers your question.

MR. DOWNEY: Thank you.

MS. ABRAMS: The next speaker is John Lancaster of the Paralyzed Veterans of America, Incorporated. Mr. Lancaster will be followed by Mr. Thomas Gilhool from the Public Interest Law Center of Philadelphia. Mr. Lancaster will address the issue of separate services and is recognized for ten minutes.

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STATEMENT OF JOHN LANCASTER,
REPRESENTATIVE OF PARALYZED VETERANS
OF AMERICA, INC.

MR. LANCASTER: Thank you. As she said, my name is John Lancaster, and I represent Paralyzed Veterans of America, a Congressionally chartered organization with 29 chapters and 10,200 members charged with advancing the interests of spinal cord injured veterans of World War II, the Korean War and Vietnam.

Perhaps the most personal statement I can make, as my colleagues would, and as the Congress itself did in the early history of the accessibility mandate, is that I resent,

indeed, I get very angry about being unable to use buses simply because I chose to serve my country in time of war.

Separate specialized services cannot substitute for the full accessibility of all urban transit vehicles travelling the general transit routes in the cities of America. It is a matter of both principle and of pragmatics. The notion of separate but equal services for any segment of American society is repugnant. Our form of government categorically rejects separate but equal. The legislative history shows that precisely these concepts of dignity and justice were at the center of the Congressional mandate of full accessibility of all vehicles on all fixed routes.

The pragmatics,as always, require a lengthier articulation, but just as clearly they show that separate specialized services cannot substitute for full route accessibility.

Now, let me give you an illustration. The Paralyzed Veterans of America have over 1,000 members who live in the area served by the Southern California Rapid Transit District. Suppose all 1,000 were employed and each called dial-a-ride the appropriate time in advance for a ride to work between 7 a.m. and 8 a.m. A prohibitive number of special vehicles, at a prohibitive cost, would have to be available.

On the other hand, SCRTD has over a thousand buses on the road during commuter time. If they are low-floor, ramped buses, a thousand employed veterans get to work on time in the ordinary course, and cost of transit operation, and with

the pleasure of traveling with strangers, neighbors, destination cohorts or merely a newspaper.

Ms. Shapiro has recited the comparative costs of separate specialized services sufficient to substitute for accessible fixed routes, as compared with the costs of accessible fixed routes. Separate substitute services cost three to five times more, according to your own Inflationary Impact Statements and according to APTA's figures, 14 to 21 times more.

As the most recent Congressional address of this question, by the Senate Banking, Housing and Urban Affairs Committee, puts it: "While your Committee has received conflicting estimates of the capital cost of fleetwide accessibility, and operating costs, information provided by Los Angeles, Seattle, and San Francisco indicates that the additional amount of money needed to purchase accessible buses is nominal compared to the high cost of purchasing and operating an equitable alternative transportation system."

The same judgments about cost, along with the matter of dignity and justice, lie at the heart of Congress' rejection of separate substitute services, consistently and persistently, since the first expression of the full accessibility mandate of 1970.

There is still another pragmatic reason why separate substitute services must be rejected, and it partakes of principle as well. One of the reasons why separate but equal is inherently unequal is because it is unstable. The same

unhappy human and societal instinct which since Plato causes a society to separate out those who are regarded as different and somehow inferior also makes it unlikely that separate but equal facilities and services will really be equal. They are more likely to be bargain basement services, masked to seem equal. Further, even if the facilities and services are, in fact equal, when the crunch comes on budgets, for example, they will be the first to go. Both points are perfectly visible in the everyday world today. Separate services are created or partly created, and they disappear, virtually every day. Accessibility which is an integral part of a general use system, however, will not disappear, because the general system will not disappear.

As the 7th Circuit Court of Appeals held in Lloyd and I quote, "unnecessarily separate services are discriminatory" and they are also prohibited by Section 504.

There is, of course, a place for specialized transportation services, a very important place, not as substitutes for universal fixed route accessibility but rather in non-urban communities where there is no mass transit, as feeder links to accessible fixed routes in urban areas and for disabled and elderly people who are non-mobile. And that, exactly, is the place given to specialized services for the elderly and disabledin the statutory scheme. Section 16(b)(2) of the UMTA Act provides for grants to support private

non-profit groups and associations in providing transportation to elderly and handicapped persons where generally mass transit is"unavailable, insufficient or inappropriate." General mass transit is "unavailable"in non-urban areas where there is no mass transit. General mass transit is "insufficient" in urban areas where the fixed route coverage leaves distances between routes that need to be bridged by feeder lines for people who live too far from fixed routes. General mass transit is "inappropriate" for people who are non-mobile and thus could not use accessible routes in any event.

Specialized services are sensible and very important in such circumstances. However, specialized services cannot, under the statutory scheme, be a substitute for fully accessible fixed routes nor can they be invoked to delay, impede or blunt the full accessibility mandate.

If I may take a moment more before answering any questions you may have, I see that at least one of you and possbily more of you, is an attorney. If I might, I would like you to think to the first year of law school when you were sitting there in Con Law 101, and remember that beautiful document of the Constitution and many of the things that are in there like the privileges and immunity clause, the commerce clause, the 1st, the 5th, the 9th, the 14th amendment and many other things in there that tangentially touch on everything we've been talking about today, and really the bottom line of

why we are here today. I don't think we are here, really, to talk about whether or not we can do this. I think it is clear, from the record, that we can do it and that it can probably be done within the next year and a half to two years. I mean, Americans are good at technology. There is no doubt about it -- if we want to be. It has already been shown that that technology is there, so that is not the question.

The question is whether or not this Administration -- which is open-minded enough to re-open this issue and who is just having the first chance to address this issue -- is going to continue sanctioning discrimination against 13.3 million people in this country who are elderly or disabled, on the part of manufacturers, transit authorities, transit operators, and indeed, the Federal Government itself.

The Congress, the legislation have spoken to the issue. They have seen the problem; they addressed it and they've answered it in the way that they have answered it; not as strong as we would like, but they have certainly answered it. The courts are starting to answer it and that raises my spirits because I think ultimately, even if you people do nothing about it, we will win; but that is not the way good government is carried on. The decision is yours to take and to run with it and to achieve this goal that Congress has mandated. It is for the Executive Branch of Government to implement what should be, and you have as much of a duty,

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I suggest, as Congress and the courts, to uphold the Constitution and to see that laws are equally applied to everybody in this country, and with that, I will be glad to answer any questions you may have.

MR. DOWNEY: In your statement you used a reference term of non-mobile. Could you define that?

MR. LANCASTER: Yes. By non-mobile, I mean truly a person who cannot get around in society without the assistance of an aide. I might give an example, possibly a person who might be confined to a litter or to an iron lung, or a person who is just maybe so paralyzed that even though he might be able to sit up in a wheelchair, he can't really operate, say, an electric wheelchair, although they are getting so sophisticated now that people have a little tube that they can blow in and what not and operate it; but that is basically what I meant by non-mobile.

MR. DOWNEY: In earlier portions of the statement, there was reference made to 60 percent of elderly and disabled people being within two blocks of service. Would, in your view, the other 40 percent for whom feeder system is a growing potential possibility?

MR. LANCASTER: Not really. To an extent. I would say, that if we could address the curb cut problem you could be a half mile from the bus stop and have no problems. I would not put that figure as high as 40 percent, but say,

acs t3-51

10 to 20 percent feeder would certainly be a way that it could work. I would suggest feeder systems -- maybe not totally a dial-a-ride feeder system but just a mini bus system that would go down less traveled routes certain times a day, maybe on somewhat of a fixed schedule or on somewhat of a call response type of mechanism, but not one of these involved advanced dial-a-ride type of things. I am not sure there are better ways to work out feeder system, although I think there is a place, like I say, a very limited place.

MR. DOWNEY: Thank you.

MR. LANCASTER: Thank you.

MS. ABRAMS: The next speaker is Thomas K. Gilhool of the Public Interest Law Center of Philadelphia. Mr. Gilhoel will be followed by Richard Heddinger of the National Paraplegia Foundation. Mr. Gilhool will address the issue of implementing the mandate and is recognized for five minutes.

STATEMENT OF THOMAS K. GILHOOL,
CHIEF COUNSEL FOR THE PUBLIC INTEREST LAW CENTER
OF PHILADELPHIA

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MR. GILHOOL: I am Chief Counsel of the Public Interest Law Center of Philadelphia, representing the 12 national and state organizations of the elderly and disabled who are the low-floor, ramped bus plaintiffs.

The Secretary, in noticing these hearings, stated for the hearing and for his decision, three purposes,

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developing the new generation of better and more attractive transit buses; providing elderly and handicapped persons better access -- we would say, full access-- to mass transportation and encouraging competition in the bus manufacturing industry.

Each of these purposes are satisfied by the low-floor, ramped bus, each of them. The only question, therefore, and it is an important question, is by what date will you refuse to approve contracts for the purchase of buses which are not low-floor and ramped.

That is an important question, first, because the life of buses averages twelve years and a commitment made in the presence of a better bus around the corner to a lesser bus, lives with us for a long time.

Second, for reasons that have been stated in the course of this afternoon, extensively, and are not subjected to exact quantification, given the benefit, the sooner the better. If one could say, now, one would. And certainly the obligation is to struggle to bring it as close to now as possible.

AM General, in its February 24, 1977 letter to the Secretary of Transportation, declared that it could deliver the low-floor, ramped bus by December of 1979. Flxible/Rohr in their testimony May 5 said, by May of '79 and in recent weeks, they've said in two years.

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Two technical people from Transit Authorities, who were, throughout the Transbus demonstration project period, members of the bus technology committee, have said to us, in language more salty than I can repeat today that if the mandate were issued, the bus, one said, could be on the street in a year's time and the other in a year and a half's time.

All the members of the bus technology committees who were and are technical people, I might add, have said to us that those articulated concerns about road clearance and maintenance and the rest that we hear so often from APTA's officers have no basis in fact and no basis in the conclusions that the technical members of that bus technology committee reached. The question, I think is not, at least this afternoon, choosing a time. It is rather a question of resolved issue, a clear and unshakable mandate and resolve to do those things necessary that produces the bus as promptly as possible. Those things may include: Federally commissioned and financed common development of components. Though as today's evidence makes clear, I think, one must tread carefully in accepting some assertion of some manufacturers about what further work has to be done for production development components.

Second, surely the benefits are greatfrom supporting with Federal dollars the early amortization of the retolling cos

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if that will contribute to a more prompt delivery of the low-floor, ramped bus into service across the country.

We suggest to you, from all that we know, and we suggest that you can find out even more to specify the date. We suggest to you from all that we have learned that a date, after which no bids will be approved, no contracts awarded for the purchase of any bus but the low-floor, should be no later than one and a half years from now.

The low-floor ramped bus plaintiffs yield five minutes of their time, by gracious arrangements with the Chief of the Docket, to Dick Heddinger.

MS. ABRAMS: The Chief of the Docket, so-called, feels impelled to observe that you are still about seven minutes ahead of schedule, so if Mr. Heddinger wishes to go is on for an extra moment or two --

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STATEMENT OF RICHARD HEDDINGER
DIRECTOR, NATIONAL CAPITAL AREA CHAPTER
NATIONAL PARAPLEGIA FOUNDATION

MR. HEDDINGER: My name is Richard Heddinger First, I would like to thank you for the opportunity to assist the Secretary in making certain that the best bus is made available to all Americans, the young, the old, the strong, the weak, the permanently disabled and the temporarily able-bodied.

I sincerely hope that the Secretary will decide that all new buses purchased after January 1, 1978, with

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Federal financial assistance, regardless of the source of funds, i.e., UMTA, FHA, etc., must include those features which will ensure that the buses can be effectively utilized regardless of his physical abilities; requiring that all new transit buses meet a Transbus performance specification which requires, rather than makes optional, a ramp or lift device that would achieve this goal.

For more than 13 years, the National Capital Area Chapter of the National Paraplegia Foundation has been a leading force in the movement for a barrier-free environment. For more than eight years, between 1964 and 1972, our organization, with the support of Congress, the media and numerous other communities, as well as handicapped organizations, attempted to convince the Washington Metropolitan Area Transit Authority to build a metro here in Washington that would be accessible to all.

Unfortunately, it ultimately took a lawsuit, in 1972, by the Washington Urban League of Paralyzed Veterans, MPF and myself to achieve accessibility to Metro.

End 3a&b

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As you know, this case stands as the first successful accessibility to public transit case in the nation. I am certain that ultimately in the future, judicial opinion will rule in favor of full accessibility to all forms of public transportation, including bus systems.

I would like to submit, for the record, an article pertaining to the 12-year battle for an accessible metro. A copy has been attached. I think there is a relevant parallel with respect to that.

As time passes, all the arguments in opposition to full accessibility become weaker and weaker. For example, the claim that it is technologically impossible to make a bus suitable for regular route service that can be effectively utilized by persons who cannot safely negotiate steps, is no longer valid.

Also, I do not see how, as some have argued, any reasonable person, in good conscience, can argue that a public transit system that uses inaccesible buses, is not denying persons with physical limitations the benefits of either all or some portion of the public transportation in the community and thereby violating Section 504 of Vocational Rehabilitation Act of 1973.

I feel confident that you will agree that it is a shallow gesture to say that a person using a wheelchair can exercise his right to use the bus, if he gets someone to

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drag him on it.

I hope that after the Secretary has made his decision, that such arguments in the courts will become moot.

In the past, the Urban Mass Transit Administration and the transit industry with certain noticeable exceptions such as Los Angeles, have been opposed to making regular public transit accessible to those handicapped persons who cannot safely negotiate steps.

I feel certain that the industry suffers from a collective guilt complex. Their arguments pertaining to cost, safety, delay, inconvenience, etc., are mere attempts to justify their past actions.

The same arguments were raised time and time again with respect to accessibility to Metro. Having been a frequent user of the Metro system, I can now say with confidence that the fears with respect to safety, delay and public inconvenience are groundless.

Pertaining to cost, I would like to point out that while the cost estimates of the Metro system, exclusive of the accessibility cost, have increased from $2.5 billion to over $5 billion, the actual elevator contracts to provide accessibility to date, approximately $3 million, are 50 percent below the WMATA estimate of over $6 million for these conctracts.

Current estimates of the cost of making an accessible

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bus will also come down, provided there is a mandatory requirement.

I feel that the unit cost of an appropriate boarding device should not increase the cost of a bus by more than $2,000 to $5,000, assuming that it is a standard feature on all buses. Thus, for between $10 and $25 million annually, totally accessibility would become a reality within about ten years.

I cannot accept the erroneous arguments of representatives of the industry that the capital cost of the device are only a small part of the total cost since seating capacity of the bus will be reduced to accommodate wheelchairs thus requiring the purchase and operating cost of 10 percent or more vehicles.

Such arguments usually evaporate when it is pointed out that seat size is usually based on peak-time demand which also takes into consideration standing room which is greater in a bus with less seats when there is no wheelchair present, or that fold-down seats should be provided.

I have yet to find any of the arguments against accessibility which would hold up under scrunity.

I would appreciate the opportunity to address any that you may have heard which you feel would justify reservations in making a decision in favor of requiring accessibility devices on new buses.

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It is unfortunate that many excellent minds in the transit industry have been so busy in problem-making that they have had little time for problem-solving.

Pertaining to the specific designs of the accessible bus, I would like to make the following comments: I feel the low-floor is essential since it would significantly reduce the number of persons who would require the use of a boarding device such as a ramp or lift. The design of the ramp or lift device must be such that it can be safely and conveniently used by a person who is not in a wheelchair. It should be located in the front of the vehicle so that the driver does not need to leave his seat for safe operation of the device.

The technical speculations of the Transbus with a four-foot ramp to rise 12 inches when the vehicle kneels at a six-inch curve, is too steep. A ratio of one-foot, one to eight would be more appropriate.

Having once decided to mandate accessibility, the Federal Government should take positive steps to assure its full utilization; for example, bonus operating subsidies to be provided to those systems that demonstrated increasing ridership by those utilizing the access devices.

While the handicapped organizations have a major responsibility in these areas, my experience tells me that the system can easily inhibit the less aggressive handicapped

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persons by subtle means. Also, since most handicapped persons are not members of organizations in many communities, it may be a long time before they become aware of the fact that the public transportation is indeed accessible.

In closing, I would like to mention that too often we all forget that most disabled persons were not always that way, and that each year thousands, involuntarily, join our ranks. Rather than dwelling on how I or some other disabled person here today might be served by an accessible bus system, think of that transit patron of the future who has given up his auto to use the bus and is elated to find that his life is a little less disrupted because the system was thoughtful enough to provide for his unexpected needs, be they temporary or permanent.

I know that this feeling is gratifying because only yesterday, while using the elevator at Metro, a regular rider with a cast on his leg commented to me: "It sure was thoughtful of them to have these elevators." I shook my head in silent agreement.

(General laughter.)

I hope that in the not too distant future, I can share such feelings with you.

Thank you.

MR. DOWNEY: Thank you.

MS. ABRAMS: That concludes the presentation,

as I understand it, of the low-floor, ramped bus plaintiffs.

Our next speaker will be Eunice Fiorito, Director of the New York Mayor's Office of the Handicapped. Ms. Fiorito will be followed by John Salvesen of the National Council for the Transportation Disadvantaged. Ms. Fiorito is recognized for 15 minutes.

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STATEMENT OF EUNICE FIORITO, DIRECTOR
NEW YORK MAYOR'S OFFICE FOR THE HANDICAPPED

MS. FIORITO: Thank you very much. I do have some written testimony. However, I am in the very fortunate position of getting two shots for one, and that is, that obviously that if I had that batch of information written in braille it would be so heavy that I would be weighted down in carrying it, in spite of the fact that I'm a rather large person.

Having that opportunity of taking two shots for one, I first of all would like to begin my presentation knowing all of you have had a long day and hopefully may not have to stay too much longer listening to all this very important information, by saying to you that I don't think I'll take my total 15 minutes.

I am the Director of the Mayor's Office for the Handicapped in New York City.

This was the first, and perhaps still is, the largest office, directing itself towards the interests and needs of the New York City,or of disabled people, in New York City, or further, of disabled people in this country; that office I have been privileged to serve under two very competent Mayors.

It was started back in 1972, preceded by an Advisory Committee on the Handicapped; and again, I was very fortunate at that time to be one of the staff people or the coordinator of that particular project.

Therefore, what I am saying to you is that I have been with this business for approximately seven years, prior to having a work experience as Director of the Psychiatric Social Work and rehabilitation work at Bellevue Psychiatric Hospital in New York City.

As the now Director of the Mayor's Office for the Handicapped, which was formed to be the advocate for New York City's one million plus people with a disability, I'm in a rather precarious position, for on the one hand, the Office's major purpose is to be that advocate with the numerous City departments and agencies.

In being that advocate in that precarious position, I have had throughout the past seven years, an incredible contact with the MTA, with the TA, which is the Transit Authority, with Port Authority, with all of the various departments of City Government and Regional Government and State Government that impact on transportation.

I can't tell you how many meetings I have gone to in the past seven years, and perhaps have seen some of the same people that are here in this audience and perhaps even

seen some of you who are here substituting for the Secretary.

I can't tell you how many times I've been around testifying either here or in the Congress. I would hate to tell you that if we put all of our salaries together and the amount of money that we've put into all of this over the past seven years, we would have probably multiplied more than the $27 million that has been put into Transbus. What I am really saying to you, and my boss has instructed me to say, it is now time that a decision be made.

We sincerely appreciate the fact that under the guidance of our President, Jimmy Carter, this Secretary through Mr. Carter's directions, has taken it upon himself to open up this issue again, and to follow through on Mr. Carter's commitment to disabled people of this nation. Last September 15 when Mr. Carter said, quote -- if I can paraphrase a quote, that in fact, he is pledged to ensuring the right and opportunities of all citizens,including citizens with disabilities; that he is against segregation and that disabled people will be considered as a part of society as they rightfully should be. He further says, that he will take all necessary steps -- and I do hope that today's hearings and the study that will be concluded on May 27th is a part of those necessary steps -- to ensure that he will use adequate and creative powers to make certain, or to ensure, that these rights and opportunities are protected.

There are one million people in New York City with disabilities. Perhaps, maybe 200,000 of them might be considered those with severe, ambulatory disabilities, to warrant difficulty in entering buses.

However, there were and still are, and in four years will probably be, 50 million people with disabilities, who counted last November and who will count again four years from last November.

It was the first time that our leader ever put himself out for us and sincerely, we appreciate, respect and love him for it; but disabled people of this country, those of whom you have seen here today, multiplied by the hundreds, thousands and millions -- I've heard so many figures today, I'm not really sure which goes where -- do know that there is a leader out there on their behalf and for their rights.

In New York City, at the present moment, we are a part of the task force to develop a policy on transportation. Similar task forces exist in other cities. The purpose of this is: "What should we be doing about disabled people now that somebody says, we've got to do something about them and now that they're out there in the political swim, in the camps?"

We of New York City have said in meetings after meetings -- and just before I came here, I learned that the

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City of New York was about to buy 100 special buses to throw on some routes. Now, you know what New York City is like. Its disabled people are scattered all over; it has a thousand or better routes, and somewhere we are expecting that we are going to put 100 buses out on a service, to provide a para-transit system for these people.

We know that we've gone through eight years of the past of being put aside; of being told -- perhaps they are not such cross words -- that we are second or third class citizens. We now look forward to the fact that the Secretary, hopefully next week, but certainly by the 27th of May, will have a policy so that cities like New York, Chicago, Cleveland, Cinncinati, all those urban areas that are grappling with this problem, will be able to finally come to a position.

We talked earlier today about separate systems, paratransient, I believe we call them. Yes, they would be super, if they would not infringe on the rights of any people; if they would be for all people. My God, if you lived on Staten Island,wouldn't it be a super idea to hop in a para-transit vehicle to take you over to a bus to get you to Staten Island, to the ferry.

In New York City, at the present moment, we have a law that now mandates curb cuts. The Federal Government is now mandating curb cuts. The Federal Government is now mandating compliance and seat standards to make buildings and places accessible. Our ferry terminals are accessible; our

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Tramway is accessible; our New York City subway, someday, if it ever gets built, will be accessible. However, the realities are, that if you come from Staten Island or if you come from Roosevelt Island, you cannot go any further than getting off the ferry or getting on the ferry, or getting on the Tramway and getting off the Tramway. Why? Because there are no accessible buses.

What you heard here today, from our vantage point as the advocates for New York City's more than one million people, we strongly support and urge in terms of the technology. We believe,in New York City,that this Administration as demonstrated by the previous Administration, when they put their mind to it, as they did in getting us to wherever we got to on the moon, can get disabled people to ride on vehicles.

We talked about, today, the difference between ramps and lifts. As you see in my written report, in 1975 -- and many of the staff from the bus companies were in New York, along with the staff of UMTA. (I do believe that the Secretary's predecessor even condescended to come) we spent a day with disabled people, trying out the buses. It was pouring like crazy and really, the drivers didn't want to go out into the rain, so what we did was keep them in a garage.

I travel around the country with a lot of disabled people, and some of the people here can testify to the fact

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that we go, "flip" up and down curves and sprawl all over this city, and when they come to New York and other cities.

The reason for saying that is that I had the distinct pleasure of observing more than 50 disabled people with sight disabilities, ambulatory problems and those persons who were in wheelchairs. It was absolutely a conclusion of the consumer, the people, that in fact the ramps were safer, less fearful, much easier to get in and out of. Therefore, we are recommending the low-floor, wide-door, ramped bus.

I wonder if any of the people in this room, particularly the people from industry, and perhaps the Secretary and perhaps all of you gentlemen, and you, Connie, might not want to take on a task, and that is to sit in a wheelchair or live on crutches during Handicap Awareness Week, which is now the 15th of May. It would be quite an experience for you to see exactly what it is like to go up a ramp. I don't really think that there are a hell of a lot of people in this room who've got the guts to do that. It would be worth a learnin experience for all of you, particularly if you were to sit on that hoist, on that lift that would take you off the ground with nothing on either side of you to really hang on to.

I watched how these people got on this lift, and saw that there was an incredible amount of fear. I don't believe that any of us wants to subject anyone to such an experience.

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Further, all of you here know about maintenance and when you have the extra gadgets such as lifts, know -- and historically it has been demonstrated -- that such extra kind of things cost more in maintenance.

MS. ABRAMS: Ms. Fiorito, I'm sorry to interrupt you. I simply wanted to tell you that 14 of the 15 minutes have elapsed.

MS. FIORITO: I shall then say to you that the one million disabled people of New York City and also the 38 million disabled people of this country -- I happen to speak also as the President of the American Coalition of Citizens With Disabilities -- strongly urge the Secretary to implement our President's commitment to disabled people; to implement the fact that he has said that he will ensure our rights and our opportunities and that once and for all, we will no longer be segregated.

Thank you very much.

MR. DOWNEY: Thank you, Ms. Fiorito.

MS. ABRAMS: Our next speaker is John O. Salvesen, Executive Director of the National Council for the Transportation Disadvantaged. Mr. Salvesen will be followed by a representative from the Office of Congressman Walgren of Pennsylvania. Mr. Salvesen is recognized for 15 minutes.

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STATEMENT OF JOHN O. SALVESEN, EXECUTIVE DIRECTOR OF THE NATIONAL COUNCIL FOR THE TRANSPORTATION DISADVANTAGED

MR. SALVESEN: I think we put something here,together, that should be highlighted. I think we have offended everybody with this one.

Mr. Secretary, Mr. Downey and gentlemen, on behalf of all the members, officers and directors of the National Council for the Transportation Disadvantaged, I would like to commend you for scheduling this public hearing to obtain advice with respect to advanced design bus development and the Transbus program.

Our organization, NCTD, was organized approximately two years ago to promote better public transportation services for the poor, elederly, rural, handicapped and other tarnsportation disadvantaged Americans. We are operators of transportation systems, spokesmen for various constituencies of user gropus and others in need; consultants in the transportation field; public officers at virtually every level of Government, including city and county officials, members of Congress and State-level officials in the transportation field and even a Governor.

We have among our members, representatives of vehicle manufacturers and retrofitters officials of many of the major organizations concerned with access and expanded transportation services.

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In short, the National Council for the Transportation Disadvantaged is an established, recognized and increasingly effective forum for debate, consideration and advocacy on matters relating to transportation for our disadvantaged citizens.

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We have spent much of our attention over the past ten months or so on various aspects of bus standards as they pertain to the disadvantaged. This has been done via numerous meetings, conferences, workshops, publications, resolutions, a special task force and other forms of study and communication.

At this point, I should point out that NCTD Receives no funds from the Government, with the possible exception of dues and conference fees for Federal employees. Now, that doesn't mean we wouldn't take any.

(General laughter.)

Our operations and our special efforts, such as this bus standard study, are paid for out of our general organization treasury which is funded by membership dues and grants, contributions and subscriptions of various kinds from hundreds of organizations, corporations and individuals who are interested in advancing the cause of transportation for disadvantaged persons.

In May of 1976, after months of planning NCTD sponsored a national conference on small bus standards at the Sheraton Park Hotel in Washington. Several hundred participants debated the various aspects concerning Federal standards on transit and special vehicles as they pertain to the disadvantaged Exhibits and representatives from 14 bus manufacturers and retrofitters also participated.

Subsequent to the May, 1976 conference, the information gleamed there was disseminated via publications, tape

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recordings of the panel discussions, resolutions of the conference and personal appearances by NCTD officers,members, and staff members, in nearly every state of the nation.

During the fall and winter of 1976, several state and regional NCTD conferences were held wherein we further considered the issue of standards for bus equipment for the elderly and handicapped. Several hundred persons participated in each of these conferences, notably the ones in Pennsylvania, Texas, Ohio, North Carolina and New Jersey.

Finally, in December, 1976, NCTD held its second Annual National Conference for the Transportation Disadvantaged at the Sheraton National Hotel near Washington.

Again, this subject was carefully considered. Nearly one hundred top experts, speakers, officials and panelists in the field of transportation participated in that conference, including the Honorable Robert Patricelli, former Administrator of the Urban Mass Transportation Administration of this Department.

We were greatly honored, Mr. Secretary, when Mr. Patrocelli formally and officially recognized NCTD as one of the nation's leading and effective voices for the transportation disadvantaged.

The reason I've gone into all of this background is to verify that in my opinion, no other organization or agency has done a more thorough, conscientious and specific

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inquiry into the bus standard aspects for transportation for elderly, poor, handicapped, rural or other disadvantaged persons.

Mr. Secretary, NCTD earlier this year established a special task force on transit bus standards. This group met in Washington to organize and then met in Michigan on February 27 and 28 to make final vehicle inspections, question industry and transit officials and prepare a statement of recommendations in preparation for this public hearing. Several members of our task force are here today. I have asked three of them to join me -- actually only two; one had to go to the hospital -- in presenting this statement and our recommendations.

I would like to introduce Kay Neil of Omaha, Nebraska. Kay has been a leader in the movement to improve transportation for disadvantaged persons in Nebraska, having served on the Mayor's Committee for the Handicapped in Omaha as a Special Advisor to the Omaha Metro Area Transit and as a member of the Governor's Committee for the Handicapped.

The gentleman missing is Hank Beaseley from Paralyzed Veterans of America.

With me also is H. Les Jankey. He is a consultant in the movie industry in California and he is Chief Executive of the Hephaestus Foundation.

As a further introduction of myself, Mr. Secretary,

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in addition to my role as Executive Director of NCTD and head of our task force on transit bus standards, I am also Director of the Cape May County Department of Transportation which operates a fare-free transportation system for the elderly, handicapped and other disadvantaged persons on a county-wide basis in New Jersey.

Among the other members of the Special NCTD Task Force on Transit Bus Standards are: John Huddleston, Professor of the Council for Advanced Transportation Studies at the University of Texas at Austin. Sandra Spence, Legislative Affairs Representative on Transportations for the National Association of Counties, headquartered here in Washington; J. Fred Coldrin, an Elected City Councilman in Cape May, New Jersey; Don Somers, President of the Yellow Cab Company, Redbank, New Jersey and a Director of the International Taxi Association; Martin Stein, a Socioeconomist for the Maryland Department of Transportation; Mike Delaney, President of the Michigan Chapter of Paralyzed Veterans of America; Shelton Wechler, an attorney who represents interests of handicapped individuals and groups.

With this background, Mr. Secretary, I would like to ask Kay Neal to present the brief statement of recommendations that is being offered by the task force. Kay, please.

MS. NEIL: The National Council for the Transportation Disadvantaged is committed to the improvement of

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transportation services for the elderly, poor, rural, handicapped and other transportation disadvantaged of America.

NCTD realizes economic realities of the marketplace in Government, but is determined that the time has come for meaningful improvement in the accessibility of all public transportatiion systems, whether urban or rural, big or small, publicly owned or private operations.

Transit bus purchasers should enjoy design option flexibility so that transit vehicles can best be suited to the local conditions, identified users' needs and cost effective operation.

To this end, this special NCTD task force on transit bus standards has examined current issues, state of the art, competing priorities and its economics and recommends the following to the Secretary of Transportation. Number one, required mobility for the elderly and handicapped in urbanized areas. This must be accomplished by accessibility to all new line-haul transit buses purchased with Federal funds. You will note there is a footnote, and those footnotes explanations are at the bottom of the second page.

Number two, accessibility performance standards, not design specifications, should be required not merely encouraged. There is also a footnote. We believe the word, Transbus is no longer appropriate in that it has come to mean both the successes and the failures of the advanced bus

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design program to date. Furthermore, there is a great deal of confusion about what now constitutes a Transbus specification. Therefore, we oppose adoption of what is now called, "The Transbus Specification"; also a footnote.

The accessibility performance standards that are required should include, but not necessarily be limited to, the following (A) An eight-inch vehicle stairway riser to facilitate access to the elderly and all other citizens. This option must be made available on all transit buses purchased by systems receiving Federal funds no later than June 30, 1978. (B) Wheelchair accessibility by any means acceptable to the purchaser and the Secretary, such as a ramp or a lift, should be required immediately.

Number three, the United States Department of Transportation should provide funding for rural and other non-urbanized transportation systems, without subjecting such funding to the same accessibility standards that apply to urban transit systems; an additional footnote.

Number four, tax or other incentives to stimulate research and development to improve accessibility should be reviewed to ensure that such research will continue.

Five, special research and development grants, or loans, to improve accessibility should be made available, including continuing development on the advanced bus design concept.

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Number six, the United States Department of Transportation should make readily available to operators in local jurisdictions, funds and technical assistance to prepare "accessibility needs assessments" for the local areas in order to determine the current and projected needs, and establish plans to meet them. These ANA's should be simple, reasonable and swift-to-complete tools for localities and others to use to determine transportation accessibility needs and solutions.

Number seven, the United States Department of Transportation and other Federal agencies should strictly enforce existing laws and regulations to ensure vehicle accessibility and work to overcome other access barriers in public places as well.

Number eight, the United States Department of Transportation should work with wheelchair manufacturers to develop design criteria for approved safety and capability with accessible transit buses, including development of a standard device to secure wheelchairs aboard public transportation vehicles.

Number nine, the practice of requiring the acceptance of low bids is not necessarily the best method of awarding transit bus purchase contracts in order to ensure the latest technology.

Number ten, all existing regulations and laws restricting diversity and equipment innovations in the

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transportation industry should be identified and removed.

Number eleven, the United States Department of Transportation should encourage the development of small and medium sized transit vehicles of advanced design and technology, in addition to the advanced full-size transit vehicle.

Number twelve, a Federal guarantee of liability insurance coverage for public transportation should be developed.

Number thirteen, the United States Department of Transportation should take any actions necessary to secure a blanket waiver of Section 13(c), labor protective provisions for employees operating vehicles accessible to the elderly and handicapped.

MR. SALVESEN: Any questions?

MR. DOWNEY: Yes, as a matter of fact. I don't know whether to start from the bottom up, or the top, down. Let me start from the bottom, up. If you suggest a blanket waiver of 13(c) for employers operating vehicles accessible to the elderly and handicapped, would that include rail systems which have totally accessible construction?

MR. SALVESEN: Actually, we have not taken that up. We are only talking here about buses and so forth.

MR. DOWNEY: City urban buses?

MR. SALVESEN: All buses.

MR. DOWNEY: The buses where accessible, 13(c) should be repealed?

MR. SALVESEN: Well, we are also not against special systems. Any time you go for UMTA funding, you are going to inherit 13(c), and it is my personal belief that there is nothing in the law right now that restricts improved public transportation for at least half of America, which is the non-urban areas, more than 13(c).

It has stopped it cold in the rural areas, and most people are a little bit reluctant to speak out against this extremely sensitive issue, but I bet you if you poll this room, most of the people would agree with that.

MR. DOWNEY: Again, it is not the subject of this hearing, but the statement you've made, your Section 13 number 13 here, is fairly extensive. I just wondered if it was not in fact intended to apply to special services, or should it be read at its face? It says: "Employees operating accessible vehicles."

MR. SALVESEN: That's right, and the reason that it's stated that way is because we feel that the option that's opened right now is probably a lift by reason of the fact that there isn't a floor low enough for a suitable ramp at this moment; and with a lift it's going to require assistance. We've run into problems already with regard to the unions' reluctance to give that kind of assistance.

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MR. DOWNEY: Again, I just want to follow this through. A city transit operation, Metro here in Washington, if it were to acquire accessible buses, would your blanket waiver apply to those buses within a system which was already covered under a union contract, or how would this particular provision apply?

MR. SALVESEN: Well, I suppose in specific cases, there would be exceptions to the waivers. But by and large, we are talking about improvement of public transportation, expansion of public transportation in areas that do not have it now, and also in the urban areas, this special system transportation.

I've heard so much intelligence here today, and some of the people are making very positive points, but it seems like an awful lot of people have put down special systems in order to prove a point about accessibility. The truth of the matter is that if you really look at what a special system does, were it successful, you'll find that a special system is infinitely more vital to the life of many people in small urban areas than the commuter or work-type transportation system. All I'm saying is, please don't use the argument that one is fighting the other. If we're talking accessibility, let's talk that; but please don't put down the special systems because we happen to operate one that is successful and it worked, and there is no transit system, so the able bodied people

would love to ride on our special system.

MR. DOWNEY: Now, going back up to the top of your 13 points, statement number one you made is requiring mobility in urbanized areas to be accomplished by accessibility to all new line-haul buses purchased with Federal funds. Now, I read that to say, without yet to find out what accessibility means, it would be a mandated standard.

MR. SALVESEN: Subheading B, "Wheelchair accessibility by any means would be acceptable."

MR. DOWNEY: All new buses, then, you're recommending have a mandated accessibility by the best available technology.

MR. SALVESEN: I would like to point out that in that little asterisk you'll find out that in our little task force, 15 people, we had a bloody fight. This fight went on until 4:30 in the mroning. In any event, there is still a difference of opinion there, but that is what won.

MR. DOWNEY: I'm glad to hear everybody has the same problem.

(General laughter.)

MR. DOWNEY: Then the second point, your actual accessibility performance standards are put in this term, saying, set aside Transbus specifications as a semantic.

MR. SALVESEN: Today I've heard, 15 inches, 17 inches, 18 inches, 22 inches, 24 inches. What is this Transbus

MR. DOWNEY: That's one reason why we're holding this hearing.

MR. SALVESEN: Okay, so we are saying, get rid of that name. Let's come up with a nice, new shiny name.

MR. DOWNEY: The name, or at least the standard that you're describing, whatever name you or we might put on it, is apparently not developed in terms of a floor height, or is it?

MR. SALVESEN: No, but there is an argument within our group that states this: that after you get past the point or a height where the ramp is no longer effective, it does not matter how high the floor is after that, as long as it is in eight-inch multiples.

Now, I heard this group testify to the 17 inches. I believe it was 17 inches, and I know that the kneel is supposed to be approximately five. All right, I heard earlier this morning, General Motors, and I believe even Rohr mentioned the 12-inch with a six-inch curb. That gives you six inches of climb, and on a one to twelve basis, that is a six foot ramp stuck out. To my reasoning, right at this point, that is about as practical as you can get if you could achieve that height. After that, the incline is so steep that the only possible way to get into that vehicle is by a lift and therefore the step height is not nearly as significant. I mean the number of steps, two, one three.

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Mr. DOWNEY: As long as they are the eight-inch?

MR. SALVESEN: As long as they're the eight inch. That's the architect stepping. That was argued seven and nine and so forth and so on, but I've been told that the architect's step is an eight-inch step. That's what people are used to, all people, if there is a step there.

MR. DOWNEY: Mr. Salvesen, do you have any comments on the procurement method?

MR. SALVESEN: We make the statement nine: "The practice of requiring the acceptance of low bids is not necessarily the best method of awarding contracts in order to ensure the latest technology." That statement, I believe, that "the buses are there, let's use the best we've got right now", I suppose. But that doesn't mean for one minute that we are in any way trying to delay that next generation of bus that might finally be called transbus two, or whatever it's going to be called.

MR. DOWNEY: Your suggestions in four, five and six is Federal assistance to help bring that about.

MR. SALVESEN: It seems to be the only way. It seems to be the reason that we're at the RTS-2 even, or the 870 in the technology that they gleaned out of the Transbus experiments and so forth.

There is one other thing in here that I would like you

to please pay note to, twelve: "A Federal guarantee of liability insurance coverage for public transportation should be developed." It's very simple. It is sort of like flood insurance. It's so simple and so basic and yet it is such a problem out there where the transit providers who are unable to get insurance, or at least they don't know they can get it, and as a result, they themselves are holding off this accessibility and elderly, handicapped issue at arm's length, so with a stroke of the pen, we could wipe out something.

Incidentally, one other point before we leave, the securement device, I believe it is a responsibility of those that use wheelchairs, to mount on their wheelchairs, to somehow develop, along with the Department of Transportation, a standard locking device that is mounted on the wheelchair at exactly the same height so that all they have to do is just hook into the bus. I saw seats that lifted up; there could be a socket behind one of those seats. You know, the handicapped are saying, do this, do this, do this. So, I say, okay, you guys do this one, work with us on this. I'm sure people like Mr. Pastor have seen every kind of an abortion in a bus in trying to secure a wheelchair. I mean, I've seen all kinds of things, girders, straps, great big pads, all kinds of things. This would be a very simple solution, I believe.

One thing we didn't get into was the fact that I don't think we explored the ramp on the sidewalk.

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I'm finished, Les Jakey flew in here from California and I believe he would like to add a word or two.

MR. JACKEY: Well, this is my second season here. I was here last year and gave my own situation comedy of riding buses in New York City.

At that particular time, the main thrust of my comedy was that I want to get on the bus; I want accessibility. Well, I still want that, but working on this task force was an eye-opener. All of us got together. We had different constituences, we came from different areas. One thing we could get together about was performance specifications. We wanted something that worked. We looked at General Motors' lift. In many ways it is very elegant. In many ways it looks like it could work very well. We looked at designs for a system of having a ramp. In many ways, again, the design is very elegant. In other ways all three systems have deficiences.

Many of us felt that the only way these deficiences are going to be overcome is to have them compete in the marketplace, to just have the four of you sit here with all the pressures on you from various constituences,-- you all know what they are -- and try to decide the definitive system, the one that is going to work forever. I mean, no bus is the final bus. Every bus is an interiumbus. I think that is the way we need to look at it. Let GM or whoever try any kind of system they want; let them get out there and sell it.

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If people buy it; if the handicapped like it; if it works, that is what we are after. Thank you.

MR. SALVESEN: Kay has a statement that she would like to include. It is different from the task force statement, and we promised the 15 members that we weren't going to take 15 different shots, but Kay would like to include that, so you can go home at night and read it.

MR. DOWNEY: We would be pleased to include that for the record. Thank you.

MR. SALVESEN: Thank you, sir.

MS. ABRAMS: Our final speaker of the day is scheduled to be Congressman Walgren from Pennsylvania. I understand that Richard Kieley from the Congressman's office will make a presentation in Congressman Walgren's behalf. Is that correct? Mr. Kieley is recognized for 15 minutes.

XXXXX

STATEMENT OF RICHARD KIELEY
REPRESENTING CONGRESSMAN DOUG WALGREN

MR. KIELEY: Mr. Secretary, ladies and gentlemen, I thank you for the opportunity to address this hearing. I am Richard Kieley, Administrative Aide to Doug Walgren, Congressman of the 18th District of Pennsylvania, which encompasses parts of the City of Pittsburgh and Allegheny County.

I appear here today on behalf of Opened Doors for the Handicapped, a non-profit organization, who, as a part of their overall service to the handicapped and elderly of our area, operate a small fleet of specially equipped vehicles

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designed to more easily transport the many citizens who are restricted in their mobility.

The Magic Carpet, as the transit service is called, has been operated for and by the handicapped for the past six years. It provides a service for approximately 1,200 clients per month.

We are aware that there are many class action suits pending, but we must be realistic in addressing ourselves to the very real problem of transporting the handicapped. Therefore, we would ask you to consider the following:

One, all buses should not be equipped with the platform for wheelchairs. The added cost of such provisions could more effectively be directed towards establishing a more comprehensive system which would meet the special needs of the handicapped and elderly. The buses which are equipped with the platform would, or should require an attendant, in addition to the bus driver, again, at added cost.

A feeder system of mini vans would still be required to transport the handicapped person from his home to the bus stop. The Secretary may encourage transit buses to be equipped with wheelchair platforms but this should not be a requirement. Such a requirement would be a waste of tax money since not all buses would be equipped. It would be very difficult for the authorities in each city to determine where to route buses equipped to transport wheelchairs.

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In public transit, the passengers cars are reduced by the number of trips a vehicle can make during the peak hours of travel. The more trips made, the lower the cost. The needs of the handicapped and elderly do not permit economies of speed on peak hour runs. It would be more sensible to develop a paratransit system for these categories of users.

The co-mingling of handicapped transportation during peak hours is completely incompatible and unrealistic, not to say, uneconomical. Of course, all buses should have low steps and rails on both sides, special front seating and wider doors for ambulatory handicapped.

Thirdly, the Secretary should make every effort to subsidize the fares of a door-to-door transit service for the handicapped.

We currently subsidize the able-bodied, reducing their fares to perhaps fifty cents to board a bus, whereas the disabled, who are not only overburdened physically but economically as well, have to pay $2.00 or more for the same trip.

Four, additional research and development is definitely not needed. The handicapped have been researched into paralysis. What is needed now is action by the Federal Government and a concerned Secretary of Transportation. No more studies, please. There is an immediate and urgent need for the Secretary to address himself to the paratransit service concept rather than equipping buses with wheelchair platforms.

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The Federal Government should investigate Section 16, paragraph B-2,"Funding". This money should not be funneled through the states to the agencies, but rather to the agency directly. Each agency knows what its needs are and is familiar with the various kinds of equipment available. The ordering of vehicles on the state level, as is done in Pennsylvania, is too removed from the users. Those on the state level who do the ordering of equipment too often have very little knowledge of the special needs of the ultimate users.

I speak from experience on each of the above points, and would be pleased to discuss the expressed concerns with the representative of the Department of Transportation.

Thank you.

MR. DOWNEY: Thank you. That completes the docket in terms of scheduled speakers. For those of you who either did not have the opportunity to speak, or who have additional comments that you hope to, or would wish to put in the record, the record of the hearing is open until the 1st of April. Any written comments should be sent to the address that was listed on the agenda. I thank you all for attending.

End t4a&B

(Whereupon, the hearing was adjourned at 3:45 p.m., as described above.)