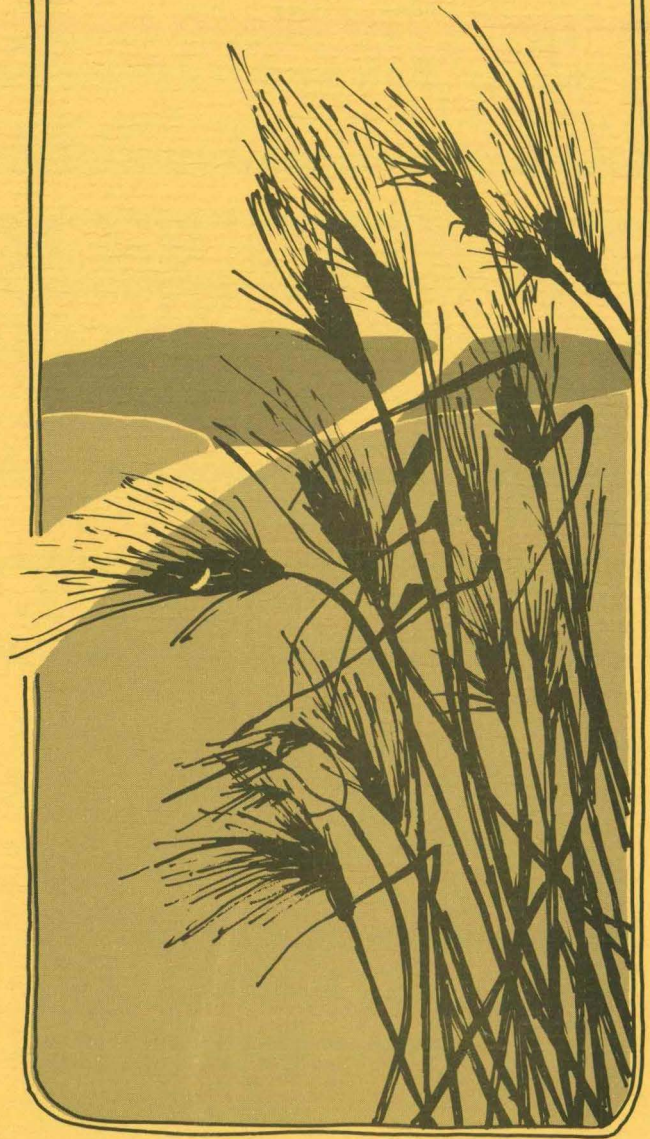


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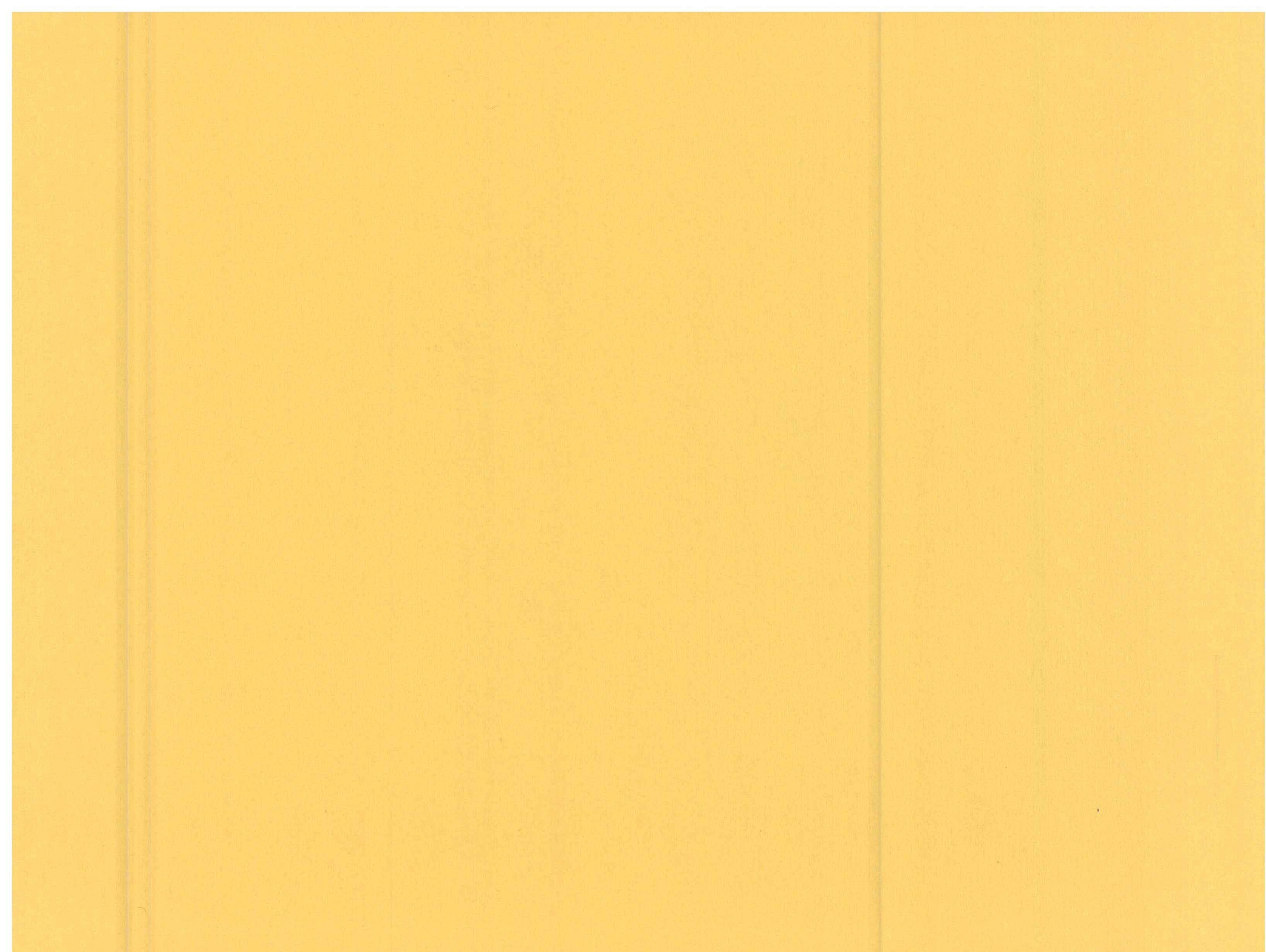


# *Northwestern Iowa Rural Public Transportation Conference*



Public Transit  
Division

Proceedings  
September 30, 1976



PROCEEDINGS

Northwestern Iowa Rural Public  
Transportation Conference

September 30, 1976

Iowa Central Community College  
Fort Dodge, Iowa

Sponsored by:

Iowa Central Community College  
Iowa Department of Transportation



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AGENDA





NORTHWESTERN IOWA RURAL PUBLIC TRANSPORTATION CONFERENCE  
Thursday, September 30, 1976  
Fort Dodge, Iowa

AGENDA

8:30 to 9:00 AM

REGISTRATION

9:00 to 9:15 AM

INTRODUCTION: James McNeal  
Assistant to the Superintendent  
Central Community College

WELCOME: Dr. Edwin Barbour, Superintendent  
Central Community College

9:15 to 10:15 AM

A TRANSPORTATION SYSTEM - PLAN IT

Rick Motz, Transportation Planner  
Siouxland Interstate Metropolitan Planning Council  
Sioux City

Charles Busskohl, President  
Arrow Stage Lines, Sioux City

Robert Steiner, General Counsel  
Transportation Regulation Board  
Iowa Department of Transportation  
Des Moines

Robert Forrest, Acting Director  
Office of Operating Authority  
Iowa Department of Transportation  
Des Moines

Joanne Gross, Marketing & Planning Analyst, Moderator  
Public Transit Division  
Iowa Department of Transportation, Des Moines

10:15 to 11:15 AM

A TRANSPORTATION SYSTEM - FUND IT

Mary Ann Olson, Program Planner  
Commission on the Aging, Des Moines

Edward Finn, Planning and Research Engineer  
Federal Highway Administration, Ames

Miriam Turnbull, State Coordinator of Title XX  
Department of Social Services, Des Moines

Terry Fritz, Director  
Public Transit Division  
Iowa Department of Transportation, Des Moines

11:15 to 12:15 PM     A TRANSPORTATION SYSTEM - OPERATE IT

Kevin Beauvais, Executive Director  
Woodbury County Community Action Agency, Sioux City

Merlyn Parks, Transportation Consultant  
North Central Iowa Area Agency on Aging, Mason City

Jon Rutstein, Director  
MIDAS Council of Governments, Fort Dodge

12:15 to 1:15 PM     Lunch - College Cafeteria (Dutch Treat)

1:15 to 1:45 PM     Inspection of Vehicles - Conference Building Parking Lot

1:45 to 2:45 PM     CONCURRENT WORKSHOPS

1. Planning & Local Needs

Resource Person: James Stephens, Transportation Planner  
Siouxland Interstate Metropolitan Planning  
Council, Sioux City

(Discussion to include who are the population to be served, where are they located, how many are there, what are the local agencies who have clients to be transported, how to use census data - % of elderly, housing density, economic indicators, % of handicapped, etc.)

2. Vehicle Requirements

Resource Person: Ron Mittag, Grants & Aids Administrator  
Public Transit Div., Iowa DOT, Des Moines

(Discussion to include types of vehicles available, special equipment - lifts, radios - costs, sources, current owner experience, sample specifications, etc.)

3. Marketing & Promotion

Resource Person: Joanne Gross, Marketing & Planning Analyst  
Public Transit Div., Iowa DOT, Des Moines

(Discussion to include basic brochures and flyers, free media announcements, posters in key agencies, mailings, attitude surveys, customer complaints/suggestions, logo, colors, commercial sponsors.)

2:45 to 3:45 PM

CONCURRENT WORKSHOPS

1. Vehicle Maintenance & Servicing

Resource Person: Bill Thomas, Fleet Manager, Iowa DOT, Ames

(Discussion to include records and schedules, time for repair, minor and major checks, servicing procedures, daily checkout, safety check, vehicle cleanliness, routine maintenance, spare parts requirements, etc.)

2. Special Needs of the Handicapped

Resource Person: Mike Nadler, Consultant  
Governor's Committee on Employment  
of the Handicapped, Des Moines

(Discussion to include vehicle accessibility, barriers - physical, psychological, economic, attitudinal, etc.)

3. Regional System Operation: A Case Study

Resource Person: Pam Hunt, Transportation Coordinator  
Senior Transit System, Ottumwa

(Discussion to include staffing and responsibilities, dispatching, scheduling, maintenance, local support, driver training, etc.)

3:45 to 4:15 PM

GENERAL SESSION - SUMMARY

4:15 to 4:45 PM

MOVIE

"Just One of Those Things"

\*\*\*\*\*



IOWA DEPARTMENT OF TRANSPORTATION  
 MOTOR VEHICLE DIVISION  
 OFFICE OF OPERATING AUTHORITY  
 300-4TH STREET  
 DES MOINES, IOWA 50319

Hearing Date And Time \_\_\_\_\_ Docket No. MV- \_\_\_\_\_  
 (For Office Use Only) (For Office Use Only)

APPLICATION FOR MOTOR CARRIER CERTIFICATE  
 CHAPTER 325

1. Application of Trailhound Bus Lines, Incorporated  
 (Name and trade name, if any)  
Robert Forrest (Chairman) Atlantic, Iowa; June Normandin (Vice-Chairman) Colfax,  
Cande Bakke (Treasurer) Urbandale, Iowa; Kate Hoagland (Secretary) St. Olaf, Iowa  
 (State whether an individual, partnership, corporation, fiduciary, or other  
 legal entity. If partnership, give names of all partners. If corporation,  
 give state in which incorporated, and names and addresses of all officers  
 and directors.)

Business Address 171 Westminster Street  
 (Street)  
Providence Rhode Island 02904 401/647-3311  
 (City) (State and Zip Code) (Business Phone No. & A.C.)

2. Applicant's representative to whom inquiries respecting this application may  
 be made is: Iris Faye Iddings  
 (Name)  
Route 2 Pleasantville  
 (Street) (City)  
Iowa 50225 515/848-5789  
 (State and Zip Code) (Business Phone No. & A.C.)

Applicant hereby applies for authority to transport by motor vehicle, in  
 intrastate commerce Passengers from, to, or  
 (General Commodities or Passengers)  
 between the following points or described area: (Routes may be identified  
 if desired) \_\_\_\_\_

Sioux City, Iowa to Danbury and return.

4. Applicant proposes to furnish service, as described in Item 3, restricted  
 as follows: \_\_\_\_\_

N/A

5. If applicant now holds, or has a pending application before the Transporta-  
 tion Regulation Board, for authority as an intrastate motor carrier, identify  
 the lead certificate number and/or hearing docket number:

N/A

6. If applicant holds, or has a pending application before the Interstate  
 Commerce Commission for authority duplicating, in whole or in part, the  
 authority sought in this application, identify the docket number assigned  
 to such authority or application, and the points served or proposed to be  
 served: \_\_\_\_\_

N/A

SAMPLE

7. Applicant proposes to compete with following certificated intrastate and/or Interstate motor carriers:

Gavin & Sabin Bus Lines, Incorporated \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

8. Indicate any interest, whether stock, loans, voting or management arrangements, which the applicant or any officer or director thereof, has in the affairs of other carriers: \_\_\_\_\_

N/A

\_\_\_\_\_

\_\_\_\_\_

9. State the number of witnesses applicant will present at the hearing 2 \_\_\_\_\_; and the approximate time their direct examination will require: 1 hour. \_\_\_\_\_

Applicant Trailhound Bus Lines, Inc.

By Robert W. Forrest

Title Chairman

OATH

County Of Polk )

State Of Iowa )

ss:

Robert W. Forrest, being duly sworn, states that he/she files this  
(Name Of Affiant)

application as (indicate relationship to applicant, that is, owner or proprietor, title as of applicant corporation, member of applicant partnership, or other authorized representative of applicant) Chairman; that, in such capacity, he/she is qualified and authorized to file and verify such application and to certify with respect to the availability of shipper and public witnesses to present evidence in support thereof; that he/she has carefully examined all statements and matters contained in the application, and that all such statements made and matters set forth therein are true and correct to the best of his/her knowledge, information, and belief. Affiant further states that the application is made in good faith, with the intention of presenting evidence in support thereof in every particular.

Robert W. Forrest  
(Signature Of Affiant)

Subscribed and sworn before me, a Notary Public in and for the state and county above named, this 28 day of September, 1976.

Debbie Young

(SEAL)

My commission expires 04/16/79



IOWA DEPARTMENT OF TRANSPORTATION  
MOTOR VEHICLE DIVISION.  
OFFICE OF OPERATING AUTHORITY  
300-4TH STREET  
DES MOINES, IOWA 50319

INSTRUCTIONS FOR APPLICATION TO TRANSPORT  
MOTOR CARRIER FREIGHT OR PASSENGERS

1. ALL INFORMATION CALLED FOR IN THIS FORM MUST BE PROVIDED, AND EACH QUESTION MUST BE ANSWERED. IF ANY QUESTION IS NOT APPLICABLE, SO INDICATE.
2. APPLICANT MUST SUBMIT WITH THE APPLICATION A CHECK MADE PAYABLE TO THE IOWA DEPARTMENT OF TRANSPORTATION FOR \$400.00 TO COVER THE INITIAL COST OF THE ORAL HEARING AND INVESTIGATION.

IF THE SPACE PROVIDED IN THE FORM IS NOT SUFFICIENT TO SUPPLY ALL OF THE INFORMATION REQUIRED, PREPARE THE INFORMATION ON A SEPARATE SHEET AND ATTACH IT TO THE APPLICATION, IDENTIFYING IT WITH THE SAME NUMBER AS THE SECTION TO WHICH IT REFERS.

THE APPLICATION SHOULD BE TYPED, BUT IF MADE OUT IN NEAT, LEGIBLE HANDWRITING, IN INK, IT WILL BE ACCEPTED.

ASSISTANCE IN THE PREPARATION OF AN APPLICATION MAY BE OBTAINED FROM THE DEPARTMENT'S OFFICE OF OPERATING AUTHORITY. BEFORE REQUESTING ASSISTANCE, THE APPLICANT SHOULD PREPARE A ROUGH DRAFT OF THE OPERATING RIGHTS DESIRED.

PROVIDED THE APPLICANT HAS SATISFACTORILY COMPLETED THE APPLICATION, THE DEPARTMENT WILL FURNISH THE APPLICANT WITH COPIES OF THE OFFICIAL NOTICE OF APPLICATION, WHICH THE APPLICANT, AT ITS EXPENSE, WILL PUBLISH ONCE IN A NEWSPAPER OF GENERAL CIRCULATION IN EACH COUNTY THROUGH OR IN WHICH THE PROPOSED SERVICE WILL BE RENDERED. PROOF OF PUBLICATION SHOWING THAT THE COST OF PUBLICATION HAS BEEN PAID BY THE APPLICANT MUST BE FILED WITH THE DEPARTMENT TEN (10) DAYS AFTER THE PUBLICATION DATE. IF ANY VALID PROTESTS ARE RECEIVED WITHIN THIRTY (30) DAYS AFTER THE PUBLICATION DATE, THE MATTER WILL BE SET FOR HEARING.

THE APPLICANT SHOULD KEEP A COPY OF THE APPLICATION FOR FURTHER REFERENCE. THE ORIGINAL AND ONE COPY OF THE APPLICATION SHOULD BE MAILED TO:

IOWA DEPARTMENT OF TRANSPORTATION  
MOTOR VEHICLE DIVISION  
OFFICE OF OPERATING AUTHORITY  
300-4TH STREET  
DES MOINES, IOWA 50319

3. EXHIBITS TO BE ATTACHED AND MADE A PART OF THIS APPLICATION:
  - EXHIBIT NO. 1 - DESCRIPTION OF THE POINTS OR AREAS PROPOSED TO BE SERVED IN EASILY IDENTIFIABLE TERMS. COMMUNITIES NOT FOUND ON CURRENT IOWA TRANSPORTATION MAP SHOULD BE LOCATED WITH REFERENCE TO COUNTIES OR LARGE CITIES AND HIGHWAY NUMBER.
  - EXHIBIT NO. 2 - A MAP IDENTIFYING POINTS AND ROUTES THE APPLICANT PROPOSES TO SERVE.
  - EXHIBIT NO. 3 - A LIST SHOWING THE YEAR, MAKE AND TYPE OF VEHICLES AVAILABLE TO OPERATE THE PROPOSED SERVICE.
  - EXHIBIT NO. 4 - A FINANCIAL STATEMENT OR A COPY OF THE APPLICANT'S CURRENT PUBLISHED FINANCIAL STATEMENT, SHOWING THE ASSETS AND LIABILITIES AS OF DATE SHOWN.
  - EXHIBIT NO. 5 - SCHEDULE OF APPLICANT'S PROPOSED RATES, FARES AND CHARGES BETWEEN ALL POINTS PROPOSED TO BE SERVED, OR A REFERENCE OF RATE TARIFF TO BE ADOPTED.
  - EXHIBIT NO. 6 - A TIME SCHEDULE OF OPERATIONS, SETTING OUT IN DETAIL THE PROPOSED SERVICE.

EXHIBIT #2

EQUIPMENT: The only equipment available to operate the proposed service is one Dodge bus, with twelve seats, including the driver's seat. This Dodge bus is leased from Schoon Motors, Monticello, Iowa.



EXHIBIT "B"

Financial Statement For JETS

Credits

Savings Account	\$5,000.00
Checking Account	<u>3,024.52</u>
Total	\$8,024.52

Liabilities

Insurance per year	\$ 225.00
Monthly Expenditures	<u>187.00</u>
Total	\$ 412.00

EXHIBIT #4

RATES, FARES AND CHARGES:

Memberships: \$10.00 per year or \$6.00 for six months

Memberships will be sold to anyone or any group, but may be used only by persons age 60 and older and handicapped persons of any age.

FARES:

Persons with memberships: 25¢ within city limits-one way.  
50¢ outside city limits and between cities- one way.  
\$4.00 to Cedar Rapids-round trip.

Persons age 60 and older and handicapped persons without memberships:

50¢ within city limits-one way.  
\$1.00 outside city limits and between cities-one way.  
\$6.00 to Cedar Rapids- round trip.

Adults: Under 60 years of age:

75¢ within city limits-one way.  
\$1.50 outside city limits and between cities-one way.

Children: Age 12 and under, when accompanied by an adult (same as adults.)

EXHIBIT #5

TIME SCHEDULE OF OPERATION:

The service will be available starting at 8:00 A.M. on each day of operation. Service will actually begin at the earliest requested time after 8:00 A.M.

Residents of the townships of Fairview, Jackson, Madison, Wyoming, Greenfield, Rome, Hale and Oxford (approximately the southern one-half of the county) will be served on Wednesday of each week. Residents of the remaining townships, comprising approximately the northern one-half of the county will be served on Friday of each week. The entire county will be serviced on Thursday of each week. Transportation to Cedar Rapids will be provided twice each month, on the second and fourth Tuesdays.

There will be no set time schedule due to the nature of the service. Please refer to Exhibit #1.



A TRANSPORTATION SYSTEM - FUND IT



September 1976

Mary Ann Olson  
Program Planner

Iowa Commission on Aging

STATE OF IOWA

COMMISSION ON THE AGING

TRANSPORTATION SERVICES FOR THE ELDERLY

Older Iowans are having trouble obtaining such basic goods and services as groceries and medical care. The combination of inflation and fixed retirement incomes is one reason why so many of Iowa's 480,000 persons over sixty have limited access to needed services. The lack of suitable transportation is the other major reason why Older Iowans, particularly those living in rural areas, are unable to obtain needed goods and services. Escalation of the prices of petroleum products and automobiles have increased the number of elderly people who are unable to own, maintain, and drive private cars. The awareness of the need for transportation has been growing among the elderly and agencies that attempt to provide services for the elderly.

The Commission on the Aging has initiated the development of thirteen multi-county Area Agencies on Aging in Iowa. The responsibilities for identifying the needs of persons sixty years of age and over and establishing priorities for program development to meet the identified needs are the most important duties of the Area Agencies on Aging. In fulfilling these responsibilities, every Area Agency on Aging in the State has identified transportation problems as one of the most important priorities for program development. Funds presently available can do very little to meet all of the transportation needs of Older Iowans. The Commission on the Aging has granted funds for the development of a variety of senior transportation projects in scattered areas of the state.

Each year the Iowa Commission on the Aging receives an allocation of funds under the Older Americans Act from the Administration on Aging in Washington, D. C. The Commission on Aging allocates these funds to the Area

Agencies on Aging by using a formula based on the percent of 60+ population within each area served by the Area Agencies on Aging. Through the Area Agency on Aging advisory structure, a determination is made concerning the most appropriate expenditure of these funds to meet the needs of the elderly in the local communities. The Area Agency on Aging is charged with developing a system of coordinated and comprehensive services for older persons - services which will enable older persons to live in their own homes or other places of residence as long as possible. The Area Agency on Aging is becoming a focal point for leadership in the field of aging. The Area Agencies on Aging are engaged in a continuous process of planning in order to define or redefine objectives and to establish priorities and to develop a system designed to improve the delivery of services. The Area Agencies on Aging make every effort to coordinate existing services and to avoid duplication of services.

In the 1975 Amendments to the Older Americans Act, the Administration on Aging defined the following national priorities:

- 1) Transportation services designed to transport older person to and from community facilities and resources for the purpose of applying for and receiving services, reducing isolation, or otherwise promoting independent living.
- 2) Home services, including homemaker services, home health services, shopping services, escort services, reader services, letter writing services, and other services designed to assist such persons to continue living independently in a home environment.
- 3) Legal and other counseling services and assistance programs, including tax counseling and assistance and financial counseling, for older persons.



- 4) Residential repair and renovation programs designed to enable older persons to maintain their homes in conformity with minimum housing standards or to adapt homes to meet the needs of elderly persons suffering from physical disabilities.

All services funded by Commission on the Aging provide Older Iowans receiving such services the opportunity to contribute to all or part of the costs of the services provided. However, no older person is to be denied a service because of inability to contribute to all or part of the cost of such service. If a transportation program is going to serve those elderly and handicapped individuals who most need the service, contributions of participants probably will not pay the full cost of such service.

The types of transportation services needed by Older Iowans should indicate what types of vehicles will best respond to those needs. It is clear that Older Iowans cannot be expected to walk blocks or miles to a bus stop along a fixed route and then merely be dropped off at another bus stop along the way. The transportation models funded by the Commission have developed demand-response systems that provide service from an individual's door to the actual destination desired. Several of the models funded by the Commission on the Aging are using 12 to 15 passenger mini-buses. Other transportation projects are using passenger cars and a coordinated volunteer network. In some areas of the state, reduced fares for elderly on metropolitan transit systems have been successful.

In fiscal year 1977, the Area Agencies will be spending \$748,000 of Older Americans Act funds for transportation services. An additional \$392,541 of additional resources will be mobilized for a total of \$1,141,024 combined federal and non-federal resources. These limited resources can only begin to serve the number of older Iowans in need of transportation services. If the elderly are to have access to necessary medical,

financial, and social services, adequate transportation must be available. Without transportation, elderly remain isolated or dependent on family and friends.

The success of a statewide transportation network for elderly is dependent on the coordination of services among many agencies. The pooling of resources is a necessity in building an effective and efficient system to meet the needs of our elderly.

Presented at Transportation Conference  
September 30, 1976, Fort Dodge, Iowa

Edward Finn  
Planning & Research Engineer  
Federal Highway Administration  
Ames

Rural Highway Public Transportation Demonstration Program

The Federal Highway Administration's involvement in funding public transportation programs started with the Federal-aid Highway Act of 1973. This Act was passed in August 1973 and provided for the Rural Highway Public Transportation Demonstration Program. This program, as amended, authorizes the Federal Highway Administration and the Urban Mass Transportation Administration to carry out demonstration projects to encourage the development, improvement, and use of public mass transportation systems operating vehicles on highways for transportation of passengers within rural areas and small urban areas, and between such areas and urbanized areas, in order to enhance access of rural populations to employment, health care, retail centers, education, and public services.

The program is intended to:

- (1) Increase the mobility of those persons in rural areas who do not have reasonable access to alternate forms of transportation and are often deprived of mobility where public transportation is inadequate or nonexistent,
- (2) encourage the various programs or agencies which provide transportation or social services to develop a coordinated approach to the organization and financing of public transportation,

- (3) develop the results of the demonstration into a useful guide for rural areas needing public transportation and,
- (4) develop the technical, organizational, and economic information needed for future decisions regarding national programs for rural transportation.

Projects eligible for Federal funds under this program include but are not limited to:

- (1) highway traffic control devices,
- (2) the construction of passenger loading areas and facilities including shelters,
- (3) fringe and transportation corridor parking facilities to serve bus and other public mass transportation passengers,
- (4) the purchase of passenger equipment other than rolling stock for fixed rail, and
- (5) the payment from the General Fund for operating expenses.

The Federal-aid Highway Act of 1973 provided a total of \$30 million for the 1975 and 1976 fiscal years. Of this amount, \$20 million was to be out of the Highway Trust Fund with the remainder coming from the General Fund. In August 1974 the U.S. Department of Transportation's appropriation bill for the 1973 Act was signed and \$10 million was included for the 1975 fiscal year of this program. The 1976 fiscal year appropriation was to be determined in a later bill. In January 1975 the Federal-aid Highway Amendments of 1974 were signed and these amendments increased the

funding level from \$30 million for the 1975 and 1976 fiscal years to a total of \$75 million. The \$75 million included \$15 million for fiscal year 1975 and \$60 million for fiscal year 1976. In November 1975 the U.S. Department of Transportation's appropriation bill for the 1974 amendments was signed and \$15 million was included for the 1976 fiscal year of this program. Of the \$15 million, \$10 million is from the Highway Trust Fund and \$5 million is from the General Fund. In May 1976 the Federal-aid Highway Act of 1976 was signed. This Act made no revisions to the amount of funds for this program but made the funds available for a period of two years after the close of the fiscal year for which the funds were authorized.

The rules and regulations for this program were developed and published in the Federal Register. The regulations provided instructions for submitting proposals for the program. The deadline for submitting proposals for the 1975 fiscal year funds was June 10, 1975, and the deadline for the 1976 fiscal year funds was March 22, 1976. The proposals in Iowa were submitted to the Iowa Department of Transportation for their review and comments. The Iowa Department of Transportation then transmitted the proposals through the Federal Highway Administration Division Office in Ames to the Federal Highway Administration Region Office in Kansas City. At the Region Office the proposals were reviewed by the Federal Highway Administration and Urban Mass Transportation Administration and the Regional representative of the Secretary of Transportation.

A maximum of 10 proposals from the four-state region were selected and recommended to the Washington Office. The Washington Office of the Federal Highway Administration and the Urban Mass Transportation Administration reviewed the proposals and comments and made the final selection of projects. The projects were selected to provide a range of different sizes, types, and geographical locations. The following criteria, not necessarily in order of importance, was applied by the Federal Highway Administration and the Urban Mass Transportation Administration in selecting demonstration projects:

- (1) innovative features that have potential for nationwide application,
- (2) the commitment of local, State, or other Federal programs to participate in the demonstration,
- (3) the likelihood of continuation of the project after the expiration of the demonstration,
- (4) provision for the local transportation needs in a realistic and prudent manner,
- (5) quality of proposed monitoring and evaluation along with the ability to modify operations as a result of that evaluation,
- (6) commitment of other local agencies providing or needing transportation services to purchase, share, or use the one areawide service funded for demonstration,

- (7) reasonableness and justification of estimated demand,
- (8) extent to which the proposal recognizes the transportation needs of economically deprived rural people,
- (9) appropriateness of proposed equipment needs, costs, and level of service,
- (10) provisions for service to elderly and handicapped persons,
- (11) compatibility of system with possible existing supplemental operations, e.g., taxicabs, where the vehicles, drivers, radios, and organization are already available and can provide feeder service,
- (12) extent to which currently operating rural transportation services, manpower, and equipment are utilized,
- (13) degree of management capability to administer the grant and to operate a transportation system, and
- (14) suitability of proposed promotion techniques to reach potential riders.

In the initial request for Fiscal Year 1975 funds there were 11 applications submitted in Iowa. In September 1975, 45 projects in 31 states were selected to be funded under this program. In addition to the projects selected, an additional 17 projects in 14 states were notified that their proposals would be considered for funding upon the enactment of a fiscal year 1976 appropriation bill. Although none of the Iowa projects were included in the selected 45 projects, two were included in the additional 17

projects. These two projects, Woodbury County Community Action Agency, Sioux City and MATURA Action Corporation, Creston were later notified that they were eligible for funding.

In the second request for Fiscal Year 1976 funds, 3 applications were submitted in Iowa. In July 1976, 50 new or expanded projects in 37 states were selected to be funded. One of the selected projects was an Iowa project from the Area XV Regional Planning Commission, Ottumwa. The demonstration program now includes 102 selected projects in 48 states. At the present time, we do not anticipate having unused or additional monies available to fund projects not already selected. Should this situation change, projects will be selected from proposals that have previously been recommended and show good demonstration potential and strong local commitment. We expect that the results of this demonstration program will yield valuable information that will assist local officials in other areas establish effective transportation services for rural residents.



Comments for the Rural Transportation Meeting

September 30, 1976

Miriam Turnbull  
State Coordinator of Title XX  
Iowa Department of Social Services

Title XX is an amendment to the Federal Social Security Act. It provides for Federal funding for services that are provided by the Department of Social Services and other providers through purchase of service agreements. Prior to the passage of Title XX, services were provided through Social Security laws, although the services were much more restricted than those now being funded through Title XX. In addition 90% of the people served had to be recipients of the Income Maintenance programs or eligible for Income Maintenance. Under Title XX, 50% of those served must be Income Maintenance recipients or eligible for Income Maintenance. The other 50% can be those who are eligible on the basis of income. Income eligibles must fall below 80% of the median Iowa income. Income eligibles must fall below 80% of the median Iowa income. The Federal regulation allow for serving those who fall between 80-115% of the median Iowa income (the median Iowa income is established by the Federal government). Congress has appropriated two and a half billion dollars to provide for the Federal share of services under Title XX. The states and local units must provide 25% of the money to obtain 75% match from this two and a half billion dollars. Iowa has allocated all its funds and for this reason is unable to serve those who fall between 80-115% of median Iowa income.

A wide range of services are provided in the Title XX Plan. This includes transportation. The Title XX Plan does not provide for funds to set up a transportation system. It does provide for funds to go to eligible individuals for transportation needs. \$1.8 million was spent on transportation F/Y 1977. The needs are clearly specified in the Title XX Plan. Federal regulations

that services must be directed toward achieving five goals. These are achieving or maintaining self support; achieving or maintaining self-sufficiency; preventing or remedying abuse and exploitation of children or adults and preserving or rehabilitating families; preventing inappropriate institutional care; and securing referral or admission for institutional care when this is appropriate. Transportation services may be used to meet the first four goals. Over 8500 clients are served in Iowa. There is a great need for transportation services in rural areas. Older people, handicapped people, those with very limited income need transportation services to meet all these goals. They may need assistance with transportation to do their regular shopping. They need transportation to take advantage of community resources, such as sheltered workshops. They need transportation to take advantage of job opportunities, or job training. They need transportation to day care centers when day care is used to meet the goals specified. If the elderly, handicapped or those with limited resources are to remain in the rural communities, transportation is essential. Most of these people prefer to remain in rural communities. Sometimes they are prevented from doing this because of lack of transportation resources. They would like to remain in their homes where their friends are located amid familiar surroundings. Being able to look out the window on a familiar scene is important to people whose physical handicaps or limitations prevent free movement in the community.

There is much work to be done to resolve transportation problems.

PUBLIC TRANSIT IN IOWA

PROBLEM:

1. No definite plan of service, coordination of services or funding between urban and rural areas or between transit agencies in same area.
2. No single source of responsibility for the total system at local level.
3. Proliferation of transit agencies which duplicate expenses and compete for limited dollars and limited market.
4. Inefficient utilization of existing resources.
5. Local financial commitment is at its limit in some areas and timid in other areas.
6. Public transportation is required for certain segments of the population but such service is often-times inconsistent with the needs.

SOLUTION:

Provide funds to Department of Transportation with flexibility to administer funds and programs under the following guidelines:

1. Divide state into Regional Transit Districts with only one (1) rural agency per region designated the responsibility for rural public transit and eligible for state funds.
2. Each regional agency must obtain local funds and develop specific goals and objectives before state funds are awarded.
3. Each regional agency must commit to the continuation of service and must provide service to rural and urban areas of the region plus provide service to elderly and handicapped.
4. Maximum use must be made of available Federal funding.
5. Funds may be used for capital and/or operating expense and may be used to start up or continue service.
6. Maximum use must be made of existing services in each region, and all services must be coordinated.

The above six points also apply to urban areas (i.e., one agency per urban area, etc.).

USES OF \$2 MILLION STATE TRANSIT ASSISTANCE

I. Financial Assistance to Rural & Urban Transit Systems -

A. Rural Systems -

1. 3 Million Passengers Per year
2. State Funds Limited to 50% or Less of Total Deficit
3. All 99 Counties Eligible - One Recipient Per County

B. Small Urban Systems -

1. 2.5 Million Passengers Per Year
2. State Funds Limited to 50% or Less of Total Deficit
3. Ames, Burlington, Clinton, Coralville, Iowa City, Marshalltown, Mason City, Ottumwa, Ft. Dodge, Muscatine, Bettendorf

C. Large Urban Systems -

1. 11 Million Passengers Per Year
2. State Funds Limited to 12% or Less of Total Deficit
3. Cedar Rapids, Council Bluffs, Davenport, Des Moines, Dubuque, Waterloo, Sioux City

II. Technical Assistance

The Iowa D.O.T. will develop management systems common to all agencies instead of each agency spending money to "re-invent the wheel". (Accounting, Marketing, Driver Training, Mechanic Training, Purchasing, Inventory Control Vehicles Maintenance, Scheduling, etc.)

III. Innovative Development Programs

A discretionary fund used for testing innovative ideas with statewide applicability to promote cost-effective ridership increases.

## Regional Transit System Concept

The goal of the Regional Transit System Concept is to utilize existing resources (urban transit, rural, transit, intercity bus, and taxicab operation) and limited funds for maximum benefits to the citizens of Iowa. The Regional Transit System is a concept which will require a considerable amount of time involvement in transportation planning and the coordination of political and public input.

There are 18 urban operations plus a potential for the development of additional urban transit systems. There are at least 100 recognized rural transit operations in the State of Iowa. In many cases, one rural area may have multiple rural transit operations, which may be as high as 18, providing service in the same area. This has resulted in a lack of coordination of services, a duplication of expenses and a competition for the same passengers, as well as for the same public funds.

There are 12 intercity bus operations serving 367 communities in Iowa. Although the route coverage is well-distributed across Iowa, the schedules and conveniences of service leave something to be desired. Historically, the only form of public transit available in small communities in Iowa has been the intercity bus. The result has been the necessity of regulations to require the intercity bus operator to make numerous stops between major population centers in order to serve the smaller communities of Iowa. These frequent stops have made intercity bus travel a relatively slow and an inconvenient form of travel. Of course, these stops have added to the intercity operator's operating expenses, which must be recouped from the general public through fares.

There are 44 communities in Iowa that have taxicab operations as their only form of public transportation. The taxicab operator obviously has experience in providing public transportation and is a likely candidate in many less-densely populated areas to provide the operating expertise as the foundation for the development of a public transportation system. This could perhaps be within the guidelines of the concept.

In the development of a Regional Transit System Concept, one must consider the following:

1. There should be an equitable distribution of public transportation services across the entire State of Iowa.
2. There are limited funds available to assist in the development and improvement of a public transportation system.
3. It is desirable to consolidate the provision of public transportation services into agencies whose sole responsibility is the provision of public transportation.
4. It is desirable to utilize and improve presently existing resources of management expertise, technical expertise and operating expertise, as well as capital assets, in order to get maximum public benefits for the minimum amount of expenditure of public funds.

5. The public transportation needs and desires of the citizens of Iowa can be most efficiently met and managed through the use of single agencies which are knowledgeable about the needs and desires at the local or regional level and which also have the professional capabilities to provide such services.

The type of public transit service needed to be developed in each of these regions will be dependent upon many factors. These factors encompass geographical area of coverage, population density, socio-economic conditions, public reaction and participation, and local government cooperation and participation. Although 40 foot buses running on fixed routes may serve many of the needs of metropolitan Des Moines, such a system would not serve the needs of the rural areas surrounding Des Moines. Conversely, while a small vehicle demand-responsive system operated similar to a taxicab operation in Decorah may serve all of the needs of that community as well as the rural region, it may not be able to serve the needs of a city such as Council Bluffs. Obviously, each area must be planned and developed according to its own individual requirements.

A Regional Transit System could also facilitate and improve intercity travel on privately-operated intercity systems. It would allow a feeder system to be developed within that region. Such a feeder system would not only provide for the circulatory distribution of travel within that region but would consolidate intercity riders into major population centers. The "market" would then transfer to intercity coaches for express travel service from one major metropolitan center to another major metropolitan center on a convenient schedule and with service that is as fast as a private automobile. Of course, once a passenger has reached his destination, he would be able to utilize the Regional Transit System to travel within the urban or surrounding rural area.

When consideration is given to existing resources, present and future expectations of public transportation, as well as limitations on funding, the Regional Transit System Concept would provide a means of fulfilling Iowan's needs and desires for mobility and at the same time function under the various constraints.

A TRANSPORTATION SYSTEM - OPERATE IT





NORTHWESTERN IOWA RURAL TRANSPORTATION WORKSHOP

SEPTEMBER 30, 1976

FORT DODGE

Presentation by Woodbury County Community Action Agency

Kevin Beauvais, Executive Director

1. The Woodbury County Community Action Agency is a non-profit Iowa corporation organized as a community action agency serving primarily the one county of Woodbury (a mercenary warrior in the fictitious war on poverty).
2. Rural Transit Director, Carole Ann Roush, is responsible for day-to-day operation (responsible for everything she has been told and shown and also everything she hasn't been told or shown). Presently, Supervises 5 full-time drivers and 3 to 4 relief or substitute drivers. Coordinates transportation activities of Agency with other governmental, private, non-profit and private organizations, as well as citizen groups. Conducts public information efforts to maximize community acceptance and generate increased ridership. Develops and extends system to extend impact to as many people as possible with the extremely scarce financial resources.
- 3-4. Extensive coordinating efforts and contractual relationships with other agencies and private operators:
  - a. Early meeting with intercommunity/interstate commercial operators to offer and seek assistance--unsuccessful effort.
  - b. Letters to same group extending opportunity to operate rural system within financial limitation--no response.
  - c. Membership in Iowa Transit Association allows sharing of concerns, problems, solutions and ideas.
  - d. Ongoing communication and working relationship with:  
SIMPCO--regional council of government  
Sioux City Public Transit System  
Para-Transit Operators--Taxi cab owner and escort service operator
  - e. Assist and encourage para-transit operator to initiate Dial-A-Ride Service--contracted intra-city business to this service.
  - f. Ongoing coordinated service delivery with Work Activity Company in Sioux City--discussion ongoing with Monona Services in Onawa.
  - g. Massive coordination with WCCAA Head Start Program--assumed 80 percent of demand, twice a day, four days per week in 6 centers throughout county.

- h. Service extended to two (2) urban nursing/retirement homes; exploration to be initiated with rural institutions. Urban service will be turned over to Dial-A-Ride Service as soon as ready to assume it.
  - i. Discussions underway with YMCA and Boys' Club on coordination of service.
  - j. Discussion underway with Area Dept. of Social Services on Title XX purchase of service contract.
  - k. Agreement to provide expanded service to Title VII Congregate Meal Sites-- Serve over 70 percent of meal-days in Woodbury and Monona County.
  - l. Assistance to Plymouth County Task Force on Aging and Mid-Sioux Opportunities, Inc. in development of AAA-Title III application for development of rural system for Plymouth County--will serve as administration and operator for Plymouth County service--contract to be developed.
  - m. Present multi-county system and applications developed and operated in conjunction with West Central Development Corporation (Harlan), Area Agency on Aging--SIMPCO, Woodbury County and Monona County Boards of Supervisors, Woodbury and Monona County Task Forces on Aging.
  - n. Section 147--Rural Highway Public Transportation Demonstration Project developed in conjunction with West Central Development Coop, Golden Rod Hill CAA (Nebraska) and Southeastern South Dakota Human Resource Development Corp. (South Dakota).
  - o. Established coordination linkages for expansion of service with Cherokee and Ida County Rural Transportation Systems.
5. Scheduling & Dispatching--
- Operate as a fixed route system for rural routes providing regular scheduled service to approximately 33 communities in 5 counties (Woodbury, Monona, Plymouth, Ida and Harrison). Routes and schedules developed by WCCAA staff after surveys identifying service desired and timeframes necessary.
  - Also operate a demand-response service within contained geographic areas for Congregate Meals, shopping, medical, social and recreational, and special excursions.
  - Volunteer contact persons in each community; persons desiring service told to contact volunteer preceeding day; volunteers call driver night before to relay reservations on each thereof.
  - Attempt to remain flexible to respond to individual needs whenever articulated.

6. Data Collected--

- a. Daily driver reports collect: Name and address of passenger; age (0-15; 16-60; 60+); handicapped, trip purpose; origin and destination; mileage and time of vehicle's and driver's starting and end of day, and income.
- b. Above data allows development of further information: vehicle miles, seat miles, dead head miles, passenger trips, passenger miles, load factors (Passenger miles ÷ Seat Miles), dead head factor (Dead head miles ÷ Vehicle miles), passenger miles per passenger trip, vehicle miles per passenger trip, etc.  
(attach two forms - a) Daily Trip-Passenger Report  
b) Monthly Summary of Trip Statistics - Draft

7. Marketing & Promotion--

- a. Press Releases to local and area news media about grants, major revisions in service, etc.
- b. Human interest story trips to local television stations to get news time area coverage.
- c. Staff appearances and talks at area Senior Citizens Club meetings.
- d. Printing and distribution of leaflets and posters for each town giving details of service to that area.
- e. Utilization of volunteers in communities.
- f. Churches and church bulletins.
- g. Encouraging word-of-mouth advertising through drivers and passengers.

8. Driver Qualification and Training--

- Must have special operator's permit (chauffer's license) and good driving record--checked through State.
- Developing safe and defensive driving through vehicle insurance company.
- Drivers have or will have first-aid training.

9. Fare Structure--

- Fixed routes calculated on basis of 3¢ per mile.
- Congregate Meal service on basis of 50¢ round trip (urban and rural).
- Special trips on excursion board on 40¢ per vehicle mile (with driver) and 20¢ per mile for use of vehicle alone.

10. Monthly Costs and Revenues--

- WCCAA experiencing average monthly costs of \$1000 to \$1200 per month per vehicle.
- Revenue from passengers and service averages \$250 per month per vehicle at present time.

11. Funding Sources, Funding Problems or Restrictions:

Present Multi-County System

Iowa DOT - Public Transit  
Woodbury and Monona Counties  
Area Agency on Aging - Title III  
Area Agency on Aging - Title VII  
Projected Passenger/Service Revenue  
WACO - DART, Inc. Service Contracts  
Head Start Program

Anticipated Funding Sources

Title XX Purchase of Service  
Section 147 - Federal Aid to Highways  
(Rural Demonstration)

Funding Problems

- a. Funding levels consistently below service demand.
- b. Tendency by funding sources to spread dollars available as wide as possible--results in funding several marginal projects rather than a few good, comprehensive systems.
- c. Funding agencies heavy into dollars for capital equipment but cool toward operational expenses.
- d. Each funding source has different regulations and reporting--also have sense of "ownership" despite amount of contribution.

SIouxLAND INTERSTATE TRANSPORTATION SYSTEM

SITS

MONTHLY TRANSPORTATION STATISTICS REPORT

MONTH OF \_\_\_\_\_, 19\_\_

(3) Vehicle Type	(4) Days of Service	(5) No. of Vehi- cles Oper- ated	(6) Vehicle Miles	(7) Seat Miles	(8) Deadhead Miles	(9) Passenger Trips	(9A) Passenger Miles
BUS I							
BUS II							
BUS III							
BUS IV							
BUS V							
Contract							
Monthly Totals-All Vehicles							

SIouxLAND INTERSTATE TRANSPORTATION SYSTEM

SITS

MONTHLY TRANSPORTATION STATISTICS REPORT

MONTH OF \_\_\_\_\_, 19\_\_

(3) Vehicle Type	(10) Vehicle Miles Per Day	(11) Seat Miles Per Day	(12) Passenger Miles Per Day	(13) Load Factor	(14) Dead- head Factor	(15) Passen- ger Mi. Per Pas- senger Trip	(16) Vehicle Miles Per Pas- senger Trip	(17) Undupli- cated Monthly Riders	(18) Elderly Riders	(19) Handi- capped Riders
BUS I										
BUS II										
BUS III										
BUS IV										
BUS V										
Contract										
Monthly Totals-All Vehicles										

Rural Public Highway Transportation Demonstration Program

PASSENGER COMPLETES

Siouxland Area Rural Transportation

DRIVER COMPLETES

Daily Trip-Passenger Report

Trip #	NAME	ADDRESS	AGE	Hand-icap	Purpose	ORIGIN		DESTINATION		Trip Dis- tance	Income
						Location	Odometer Reading	Location	Odometer		
			0-15		Medical						
			16-60		Shopping						
			60+		Business						
					Social						
					Recreation						
					Nutrition						
					Other (Specify)						

IDENTIFICATION

1. Project	
2. Service (PR/DR)	
3. Vehicle Number	
4. Driver	
5. County	
6. Date	

OPERATIONS

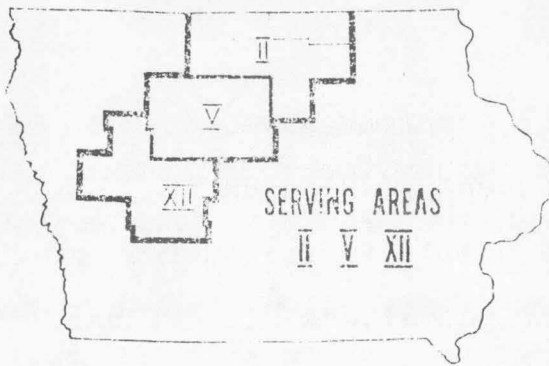
7. Stop Time	
8. Start Time	
9. Total Hours	
10. Stop Miles	
11. Start Miles	
12. Total Miles	

DAILY SUMMARY

13. Total Trips	
14. Total Passengers	
15. Total Passenger Miles	
16. Total Deadhead Miles	







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Merlin Parks, Transportation Consultant

*North Central Iowa  
Area Agency on Aging*

NORTHWESTERN IOWA RURAL TRANSPORTATION CONFERENCE

Fort Dodge, Iowa - September 30, 1976

The North Central Iowa Area Agency on Aging is funded primarily under Title III and Title VII of the Older American Act through the Iowa Commission on Aging. We are sponsored by North Iowa Area Community College, Mason City and Iowa Central Community College, Fort Dodge. Our planning and service areas include twenty (20) counties from those along the Minnesota border of the Central part of the state to several counties along Interstate 35 west of Des Moines.

Our responsibility is to encourage development and coordination of programs which will assist older persons to remain in their own homes and improve the quality of life for them.

Transportation has surfaced as one of the most needed services by older people. This need is increasing as the number of older people continues to increase in the state. In many counties 22 to 25% of the population is now over 60 years of age. For many of them physical and financial limitations do not permit ownership or driving of personal vehicles. Continual needs for transportation leads to begging for rides from friends, neighbors, and relatives which undermines self esteem and independence.

*Offices in:*

*Mason City  
Fort Dodge  
Carroll*

*North Iowa Area Community College  
500 College Drive  
Mason City, Iowa 50401  
Tel. (515) 423-1294 Ext. 281*

Initially we had plans to develop a comprehensive coordinated system of transportation including the twenty (20) counties. However, we soon found that funds were not available for such an ambitious program and also our sponsors or guidelines did not permit our organization to operate such a system. It also became apparent that the need for transportation varied substantially in different counties and communities.

Further investigation brought out that some communities had public transit operators, either buses or cabs and most of them were very interested in improving or extending their service if means could be found of providing them with a reasonable amount of funding assistance. Some agencies or organizations were also interested in developing transportation for their participants.

Our first efforts were to establish a reduced fare for those people 60 years of age or older in Mason City. The Mason City Chapter of Association of Retired Persons, National Retired Teachers Association developed a transportation committee. This committee contacted the local transit operator. Together they explored various means of providing the reduced fare. The regular fare was 40¢ each ride and the objective was to reduce the fare to 25¢ for older people. After several meetings it was agreed that AARP - NRTA organization would provide tickets, costing \$2.50 for ten rides, would provide publicity and assist in selling tickets to promote the bus service and increase patronage. The transit operator would provide the service. Currently about 2,500 rides per month are being provided.

Our next efforts were in Charles City where \$400 per month became available from a community development block grant for the purpose of providing transportation services to older people in Charles City. The Area Agency had a transportation task force which explored various means of providing the service. Contacts were made with the taxi line and after several meetings it was agreed between the taxi line, the city and the task force that rides would be provided at \$1.00 each. The regular fare was \$1.50. The task force had books of tickets printed and controls their distribution. These are available to anyone 60 years of age or older and there is no set price. The recipient only contributes any amount which they feel they can afford. The taxi provides service the same as they would for any fare paying patron. However, rather than a fare the driver receives a ticket. At the end of each month the taxi operator submits all the tickets collected that month to our task force. They verify the number and validity of the tickets and certify the number of rides provided to the city. The city then reimburses the taxi operator for the number of rides at \$1.00 each. The regular taxi dispatching, equipment and personnel are used.

Currently approximately 850 rides per month are being provided. As the city funds are insufficient to support this level of service, the United Way is providing an additional \$2,400 per year and various services, clubs and churches are contributing. The contributions are averaging slightly over 40% of the cost or 40¢ per ride.

The city has established a separate transportation fund. All cash from every source is placed in this fund and all disbursements are made from it.

Through a merging process the agency became indirectly responsible for a transportation system for elderly in Crawford County. This system has been in operation for approximately two years. It is operated by the West Central Development Corporation and is providing approximately 100 rides per month, provides service to Congregate meal sites and also delivers meals to the homebound elderly, similar to meals-on-wheels. This is a semi-routed and scheduled-demand responsive system. A contribution is made for the service, with suggested amount of \$1.00. Costs are varied but are about \$4.50 per person served.

Services were started in November of last year in Hampton and Franklin counties. There had been a taxi service in Hampton, but it had discontinued operation during the summer as the operator was elderly and in poor health. No one else was interested in taking over and continuing the taxi service. Transportation task force explored the need which was found to be substantial. We became aware of a service that was under contract with the head start program to provide services that only required a vehicle approximately two hours per day, five days per week. The contract was with the Public Transit Company of Mason City. The Public Transit operator was dead-heading a vehicle and driver from Mason City to Hampton twice a day to provide this service. When contacted he was willing to station a vehicle and driver in Hampton if same assistance could be provided.

Our task force approached the City Council and Board of Supervisors who were willing to assume the cost at slightly under \$1000 per month.

A semi-routed and scheduled demand responsive system was established.

The dispatching service was provided by the CAP Agency at no cost. Local volunteer coordinators were established in each outlying community so that reservations could be made without the necessity of making long distance calls. The fares were established at \$1.00 per ride in the County and 50¢ per ride in Hampton. There are now approximately 15 rides per day being provided. In addition the vehicle and driver are also delivering meals for the meals-on-wheels program in Hampton.

The Agency has also assisted programs covering Cerro Gordo, Mitchell and Audubon Counties. We are now in the process of assisting Winnebago and Carroll counties and limited assistance to Eagle Grove and perhaps Webster City.

We have tried to cooperate and coordinate with existing services where possible and develop alternatives only when services are very limited or non existent.

Generally when the agency assists any service it is mandated that the service cannot establish a set fare, but must make the system available by requesting the participant to make a contribution.

Because our funds have been extremely limited we have not provided funds for advertising and promotion. We have depended upon our local task forces to distribute posters, tickets, schedules, etc. It is our feeling now that there should be provisions in each application to permit promotional activities. While the news media are quite generous with time and space, their efforts will only assist in getting started. Continued publicity is necessary to reach many people who do not attend meetings and conferences.

It has been our experience that the involvement of local people is essential to the successful development of rural transportation for the elderly. They are most aware of the extent of the need, can assist in searching out funding sources and help to develop a system that will serve their needs. They do lack specific knowledge relating to costs, administration varieties of possible services and guidelines required by various funding sources. They need assistance on specific details when these questions are asked.

MIDAS Council of Governments Transportation Planning and Operation

The Mid Iowa Development Association (MIDAS) Council of Governments Multi-County Demonstration Transportation project covers four counties in Iowa Region 5. Those counties are, Calhoun, Humboldt, Pocahontas and Webster, also included in the four county system is the City of Fort Dodge with its own vehicle operation.

The primary ridership of the transportation system will be the elderly and handicapped, however all individuals will be encouraged to use the system to increase their mobility to essential community services,

The system has been funded for a sum of \$158,140 by the State Department of Transportation through legislation passed by the Iowa General Assembly last year. A total of \$200,000 state-wide was allocated for demonstration transportation projects like MIDAS's. The MIDAS grant represents 79% of the total money that was made available for such programs.

Those sponsors operating the individual county systems are:

Calhoun County:	Quality Cab Company - Manson
Humboldt County:	Humboldt-Dakota City Senior Citizen Center - Humboldt
Pocahontas County:	City of Pocahontas
Webster County:	Union Cab Company - Fort Dodge
Fort Dodge:	Union Cab Company (City of Fort Dodge Sponsor-system lease to Union Cab Company)

The System's first day operation was July 1, 1976.

The need for transportation systems serving rural population is well established. Within the general need are the specific needs of the elderly and handicapped. This proposal is designed to provide a workable, continuing rural transportation system which will accommodate the special needs of the elderly and handicapped. The benefits of such a transportation system are numerous.

Development of the MIDAS demonstration project provides a comprehensive rural transportation system which is capable of serving all areas of the multi-county region. Duplicity of cost and service will be avoided through a coordinated approach that includes existing service in the program development. Existing services actually provide the basis on which this program was developed. The Fort Dodge and Manson taxi services and Humboldt-Dakota City Service are major sponsors of the program. Their existing equipment and facilities will reduce the initial costs of the program.

This project is designed to meet the special needs of the elderly and handicapped as well as the needs of other rural residents. Almost one-fifth of the multi-county population is elderly. Most of these elderly citizens reside in rural areas and do not have access to public transportation. This project will increase the mobility of area elderly and handicapped by providing access to economical transportation.

Conservation of energy will result from the provision of rural transportation which will serve all rural areas of the region. Reliable schedules and routing will allow rural residents to plan trips in advance and thereby reduce the necessity for unplanned automobile trips for minor reasons. Transporting a large number of passengers in several van trips constitutes a significant savings of energy.

In addition to conservation of energy and increased mobility for the elderly and handicapped, all rural residents will have increased access to employment, health care, commercial centers, education, recreation, and other public services. Residents of rural communities which do not have many of these services will be given the opportunity, on a regular basis, to visit other communities which provide a large market of the above services. Development and improvement of rural transportation may also lead to a reduction of current declining trends in population in smaller communities.

Implementation of the demonstration project will provide the initial basis for a continuing rural transportation program in the multi-county area. The demonstration project will allow the development of management and financial capabilities to support a continuing service to rural residents. Experience gained from the demonstration project will insure that continuation of the program will be economically efficient. Rural transportation needs which are not met adequately in the initial phase of the program can be identified and accommodated in the continuing program.

A benefit of the demonstration project which will help other areas of Iowa will be the development of technical, organization, and economic data. This data can be used as a guide for other areas interested in providing rural transportation. Additionally, information from this demonstration will provide a basis for future decision affecting rural transportation programs in Iowa.

In summary, attainment of the five goals established at the onset of the demonstration project will provide rural residents of the area with a comprehensive, continuing transportation service. Elderly and handicapped citizens will be given the opportunity to regularly travel to areas which provide a variety of commercial and social services. Intergovernmental and interagency cooperation will provide an efficient, low cost rural transportation service which will contribute to an improving social and economic environment.



GOAL 1: To encourage the development, improvement, and use of public transportation systems which will meet the needs of all residents of rural areas, especially the transportation needs of the elderly and handicapped.

- Objectives:
- A. Through intergovernmental and interagency cooperation, establish a coordinated approach to the organization and financing of public transportation.
  - B. Include the special needs of the elderly and handicapped as major considerations in the organization of public transportation.
  - C. In the development of transportation programs, encourage input from local service and interest groups.

GOAL 2: To insure that rural populations have improved access to employment, health care, retail centers, education, and public services.

- Objectives:
- A. Combine existing and proposed services in a manner that provides public transportation to those rural residents who do not have reasonable access to alternate modes of transport.

GOAL 3: To provide a program guide which will allow other areas of Iowa and the nation the opportunity to establish similar systems of rural public transportation.

- Objectives:
- A. Develop the results of this program into a useful guide for rural areas needing public transportation.
  - B. Provide technical, organizational, and economic information needed for future decisions regarding Iowa programs for rural transportation.

GOAL 4: To develop a regional capacity building system which will insure that major sponsors of the program will have the management capability to continue this service.

- Objectives:
- A. Develop public support for intra- and inter-county rural transportation to meet the needs of Region 5.
  - B. Develop the management and financial capacity to continue the operation of rural transportation services after the demonstration grant expires.

GOAL 5: To enhance environmental quality through the conservation of energy.

- Objectives:
- A. Develop a publicity campaign which will encourage the use of energy saving public transportation.
  - B. Design service routes which will provide public transportation for all rural residents.



WORKSHOPS



STATEMENT FOR RURAL TRANSPORTATION MEETING  
September 30, 1976

All transportation systems should be designed with the population the system is to serve taken into consideration. Because of the diverse trip origin, trip ends, and the times trips are made, it is out of the scope of rural transportation systems to serve the normal work trip. Therefore, the portion of the population that will use the rural transportation system will consist mainly of:

1. the elderly
2. the economically disadvantaged
3. young people not yet old enough to drive
4. special groups
5. the handicapped.

The rural elderly, though they do have diverse origins, have many common destinations such as the grocery store, doctor, lawyer, county seat and shopping. These are also the destinations of the economically disadvantaged and the handicapped, because of the essential services and products provided.

Young people not yet old enough to drive will make up very few individual trips because they would only be able to use a daytime rural transportation system three months out of each year and would not have as great a demand for the common destinations of the elderly, economically disadvantaged or handicapped. Young people can provide a high transportation usage if the rural transportation system also carries school children or head start children.

Special group services refer to the transportation of clients of service organizations such as the nutrition programs, the senior citizen centers or sheltered workshops.

A major concern must be what level of service to the handicapped will be provided. A basic service would only serve the handicapped people who could use normal bus equipment without driver assistance. More handicapped could be served by having the driver aid the passengers with the greatest number of handicapped being served through the use of special equipment.

Before any transportation system begins operating, the areas to be served must be delineated and the population must be quantified. A basic source of information would be the sheltered workshops, educational facilities for the handicapped, elderly nutrition program meal sites, senior citizen centers and local churches. This information would show where their clients reside and when their clients could utilize transportation services.

For the total population of an area there are two major sources of information: the Census data, or conduct a survey. Census data is available by community and county and provides the following data.

1. total population
2. population by age
3. distribution of family incomes
4. percentage of the population 65 and over with less than poverty income
5. the number of persons 65 and over not in the labor force
6. the number of persons/household
7. the number of dwelling units per structure

A survey conducted in any rural area must address the manpower available, the information needed, how the survey is conducted and whether the whole area or just representative portions of the area should be surveyed.

Jim Stephens

## Discussion - Planning & Local Needs Workshop

1. Have you ever utilized service organization surveys? Through their news letters? Interviews at service centers?
2. Comments on information sources:
  - a. MIDAS works with area extension offices.
  - b. Regional agencies have much census data.
3. Summer Employment Agency Help - Sioux City
4. Correlation studies on synthesizing trips from records of other communities. This should be the responsibility of Iowa DOT--example would be Pennsylvania. ISU published a report on synthesizing trips in small communities. Synthesis will not reflect unique shopping habits sometimes found in Iowa.
5. Have the Regional Planning Agencies received a manual for developing regional transit plans?
6. Are the seats on a school bus different and not suitable for elderly? This came up from question on why not use school buses for transporting the elderly?
7. DPI has stiffer regulations for school buses. Can't use vans. Dual purpose use is discouraged and perhaps illegal.
8. Must modify stop area if you use school bus for transporting elderly.
9. How is Iowa Northland Regional COG identifying elderly and handicapped?
10. MIDAS has high hopes for interconnecting transit system within the region. Local Chamber of Commerce don't want to see the people use this service to shop for groceries, etc. in other communities. Services should be mainly used for medical, clothing, etc.
11. Township and small community census data must come from original census tapes. Contact ISU.





### VEHICLE REQUIREMENTS

Transit vehicles available on the market today are of four general categories: (1) converted vans, (2) small transit buses, (3) mid-size transit buses, and (4) large transit buses.

Converted vans are regular vans with raised roofs and other modifications, such as special seating arrangements and wheelchair lifts. They will seat from nine to fifteen people, and range in price from \$10,000 to \$20,000 depending upon the type of modifications and optional equipment desired. Base price will be around \$10-15,000; with air conditioning approximately \$1,200; a wheelchair lift approximately \$1,700; deluxe interior around \$300; and other options, such as radio equipment, seat belts, or special interior arrangements will depend upon the purchaser's specifications. Delivery time for the vehicle is generally 90 days.

Small transit buses will seat from fifteen to twenty people, depending upon the seating arrangement desired and the particular vehicle capacity. To give you an idea of size, the small transit bus is from seventeen feet to twenty-six feet in length, and has an empty weight of 5,200 pounds to 9,400 pounds. Prices for a small transit bus range from a base price of \$10,000 to \$22,000. Optional equipment prices vary greatly depending upon the manufacturer. Air conditioning will cost from \$580 to \$4,000; a wheelchair lift from \$1,000 to \$6,000; and deluxe interior from \$150 to \$2,000. Any special modifications or equipment will, of course, depend upon specifications for the price to be determined. There are currently eleven small bus manufacturers producing about eighteen different models. Wheelchair spaces are also an available option. These allow a wheelchair to be locked into place on the bus. It should be noted that each wheelchair space will reduce seating capacity by two seats. In other words, a fifteen passenger small bus with two wheelchair spaces will have seats for ten or eleven other passengers. It is important to keep this in mind when determining the vehicle size needed according to your particular passenger requirements.

Mid-size transit buses seat from twenty-three to thirty-eight passengers, and vary in length from nineteen feet to thirty-one feet. Empty weight of the buses will range from 8,000 pounds to 20,500 pounds. The base price of the mid-size bus will range from \$13,000 to \$56,000. Air conditioning prices are in the range of \$580 to \$5,000; wheelchair lifts from \$1,000 to \$12,000; and deluxe interiors from standard to \$5,300. As in the small buses, wheelchair spaces will reduce the number of standard seats available.

Large transit buses seat from forty-two to one-hundred and four passengers, vary in length from thirty-five feet to sixty feet, and range in empty weight from 22,200 pounds to 35,500 pounds. The base price of a large bus ranges from \$56,500 to \$171,000. Obviously, large transit buses are not practicable for rural transit, but it is interesting to note the full range of vehicles that are available to transit.

Two other vehicle types are often considered and used in rural transit. These are regular vans and school buses. The main problem with regular vans and school buses is accessibility. Federal regulations require that any vehicle purchased with federal funds must be accessible to the elderly and handicapped. It is questionable whether a regular van or a school bus is accessible to persons who have any type or degree of mobility impairment. Also, future federal regulations will be providing more definitive standards for vehicles used to provide transit services for the elderly and handicapped. These regulations should be published later this year, and they should be kept in mind because they will influence the types of vehicles you can purchase with the use of federal funds.

I have available today some reports on current owner experience, sample vehicle specifications, and the DOT Bus Specification and Price Summary brochures. At this point I think it would be of greater benefit to look at this information and then get into a question and answer session to see if we can get answered today any specific questions you may have.

MARKETING & PROMOTIONAL  
WORKSHOP

Joanne Gross  
Marketing & Planning Analyst  
Public Transit Division  
Iowa DOT

Workshop participants discussed the following items:

1. Drivers should be courteous, pleasant, neat and helpful. Vehicles should be clean, mechanically reliable and on time. Telephone people should also be courteous, pleasant and helpful. If the product is inferior (transit service), no amount of advertising will convince people to ride no matter how much they may need the transportation. THE BEST ADVERTISING IS A SATISFIED RIDER.
2. System identity is extremely important. An easily recognizable symbol or logo should be used on vehicles, brochures and other promotional material since it is easier for the public to recognize a symbol than a written name. If possible, all vehicles should be painted the same color, preferably with a distinctive color or pattern so the transit system vehicle can easily be distinguished from other van-type vehicles. The system's phone number should also be easily visible on the vehicle since the bus is, in effect, a mobile billboard.
3. All basic brochures and flyers should be written in a simple style and easily understandable. Pictures add to the attractiveness of the item. It is worthwhile to investigate the possibility of having informational pieces printed by the local city to reduce printing costs or having the printing donated by a local service organization. If a rural system operates regular routes between towns, consideration could be given to preparing maps for distribution. Samples of brochures, flyers and route maps used by various types of systems were circulated.
4. Good media relations are extremely important. This method of advertising reaches many, many people and is free. It is necessary to keep marketing in mind at all times. What may seem routine in some cases may actually be a newsworthy story. Get to know your local newspaper people (as well as people from radio and T V stations if they're in your area).
5. Speeches before various types of groups serve not only to provide information about the service but gives people the opportunity to ask specific questions and get to know and identify with the system through an individual.
6. Devise methods to involve the riders in the system. Posters could be painted by regular riders for placement in various locations in towns.

Marketing and Promotional Workshop (cont.)

7. Newsletters could be distributed which feature stories about special trips, pictures and stories about system personnel (drivers, dispatchers, etc.), contributions from riders (poems, recipes), service changes, and other items of interest.

Two volumes of marketing materials from the Iowa Department of Transportation's Public Transit Division's technical library were circulated for information. Two articles which were handed out to the participants are attached.

# Transit Marketing

'Do's and Dont's' for a successful program.



Marketing is a process that must be involved in all decision-making steps throughout the transit organization — steps that determine the transit customer's needs, the product offered to fill the need, the daily delivery of that product, and the information systems advising the customer of the product's availability. Often, marketing is viewed as the cure-all and is asked to mask product deficiencies to sell, sell, sell. It can't be done! The product must fill the customer's need; only then can the information systems portion of the marketing process be effective.

A market research program should be developed as a continuing process — not a one-time exercise used to further a specific program. Changes are occurring rapidly in our society, and our transit systems must continually check trends in their service areas if they are to succeed in generating increased patronage. Moreover, each element of the marketing program should have specific targets established at the outset to provide a realistic appraisal of the benefits of each element in a given period of time.

The objectives of a marketing program are (1) to increase transit patronage by developing customer needs into a service they will use and by making them aware of service availability, and (2) to gain overall public support for the service. The information programs that provide service benefits have two main objectives: improving transit's image, and specifying benefits available to each user.

## Marketing Techniques

The techniques to appropriately implement a transit marketing program are similar to those of consumer product marketing — i.e., identification of the need, planning the product to satisfy the need, and delivering the product, including the promotion of its availability. However, the

cost of marketing transit cannot be related to consumer product marketing costs.

A more realistic comparison would be with the electric utility industry. This industry is similar to a franchise for exclusive operations within an area; however, it recognizes the need to promote product use because of competition from other forms of energy (gas) and because a customer can choose to make use of the product to a greater or lesser degree.

Industry figures for transit (determined in a survey of 23 systems reported in UMTA Report INT-MTD-10, "Transit Information Aids") showed systems in medium-to-large cities spending an insignificant amount of their revenue dollars for marketing information. (Exceptions included Buffalo and Atlanta, which each spent .5-percent of their revenue for advertising, and Birmingham, Alabama, which spent 1.5-percent.) A more recent example is the expenditure of 1.7-percent of revenue for a three-month advertising campaign conducted by the Cleveland Transit System. It is recommended that transit systems consider a figure of 2-percent of revenues as a minimum for out-of-pocket marketing expenditures.

## Organization

The general manager is the most important element in organizing a transit system marketing function in small-to medium-sized cities. This is true not only because of the need for sales-oriented thinking in the total operation, but also because an expenditure of 2-percent of total revenues for out-of-pocket costs will not require a person solely to develop and implement a marketing program. However, in the larger systems, everything possible should be done to

identify marketing as a separate responsibility and to support the activity with a one- or two-person staff. Functions to be performed include analysis of data collected; involvement in management decisions for route planning, scheduling, and fares; development of a continuing public relations program, including system graphics, customer information aids, and driver courtesy training; the placement of paid-space advertising; charter service sales; surveys of both existing and potential customers; and development of special promotions.

### Public Information

The effective use of public information procedures can be the most powerful and least costly method of promoting transit service. They include news media relations, customer information service, driver courtesy training, and presentations to and participation from the community in service development.

*News Media Relations.* Good relations with the local news media are paramount in the successful execution of marketing programs for transit, particularly when the marketing budget is severely restricted. If the press, radio, and TV management are convinced that transit service is adequately serving the public need, they will strongly support the effort. However, such support cannot be realized simply through "press releases" to the various media. It is important that personal contact be made on a continuing basis with the newspaper publisher, his editors and reporters, and radio and TV commentators and general managers.

Once rapport has been established with the press, radio and TV executives, reporters and commentators, it is important to generate enough "news" to keep them and the public interested in the transit service.

A public relations program should be used not only during implementation of a transit development program, but also throughout the technical study which formulated the improvement plan. Such a program can be developed at the beginning of the technical study, starting with a press conference at contract signing that explains the consultant's work program and continuing with planned releases, special interviews, and additional press conferences at appropriate study program milestones.

The mechanisms for implementing a media program will vary according to budget and according to the owner and operator of the transit company.

*Customer Information Service.* The customer information service program should include development of an easily distinguished logo and color scheme, simple yet attractive bus-stop signs (with shelters where appropriate), simplified printed schedules and route maps, and a telephone inquiry service.

### Logo and Color Scheme

An easily distinguishable and attractive logo and color

scheme for the vehicles is an important step in providing a modern and desirable transit image. Several development methods are retaining a graphics specialist, holding a design contest among the area's architectural design firms (with the award being the successful firm's retention for system-wide development), or holding a contest for areawide citizen participation (with the award varying from free transit service for a year to a fully paid vacation).

### Transit Stops

Transit stops have been a continual problem in the industry. Most signs are unattractive and indistinguishable from the standard prohibitional signs erected by the traffic engineer. They are frequently located where they compete with a host of other signs and often give no schedule information. Recent successful experiences involve simple graphics, with a bold logo of the system or a bus symbol distinguishable from at least one-half block away, and street name and bus route numbers or other route designations for the stop under the symbol. Ideally, this sign would be complemented at eye-level with a plastic-enclosed system map, or that portion of the system served by the routes indicated on the sign. Shelters and benches are becoming increasingly popular, and their extensive use will do much to show that the transit system is serious about providing competitive service.

### Timetables

Printed schedules are a source of continuing confusion to the transit-riding public, primarily because they provide too much information. Simple color-coded system maps, with schedule information on route origin and destination times and frequencies and specifications for major points along the route, are sufficient.

### Telephone Inquiry Service

Another opportunity to provide an image of service to the community is through a responsive telephone inquiry answering service. This method could be very expensive for a small system, but incoming inquiries should be accommodated whenever possible. This system can be handled at modest expense if a recording tied to the incoming lines announces that the lines are busy and requests that the caller leave his name and address "at the tone" if he would like a system map and schedule mailed to him.

### Community Participation

Repeated contact with community groups is an effective and inexpensive way to convey a transit system's interest in serving the public and to obtain feedback on public reaction to the service. Simple slide presentations indicating the system's method of serving the public should be made available to fraternal, church, business, and school groups. Specific advisory committees should be formed of citizens representing marketing target groups (such as neighborhood

areas, the elderly, school children, apartment dwellers, and industry). These groups could suggest opportunities for improving present service, for initiating new service, and for charters. Representatives of each subgroup could then form an overall citizens group to advise the transit operator of their needs and to act as a soundingboard for the operations plans.

Citizen participation cannot be a one-way street. It will not work if its purpose is only to inform; listening to needs must occur as well. For example, a group representing industry could be asked to help develop express service to main employment concentrations by making available their employment records, by partial subsidy based on savings due to lower parking needs at their facility, and by altering their shift times to make maximum use of transit equipment before the normal peak commuter loading for the area.

Neighborhood residents without service (such as those in high-density apartment areas, suburban planned unit developments and in-city enclaves) should be encouraged to form groups that will themselves solicit transit riders and to guarantee the transit operator the sale of enough passes to make the provision of service a reasonable course of action. Too often, transit operators are urged to provide service to a given area, only to experience poor patronage when the service is implemented.

#### Driver Training

When the customer decides to buy the transit product, his first personal encounter is with the driver. All previous efforts to get the customer to the facility can be lost at this point if the driver makes him feel unwelcome. Periodic sessions should be held to instill a sense of pride in the drivers, to teach them the system routes, to instruct them in methods of handling situations that commonly arise, and to have them share their experiences with management and other operators. Driver courtesy contests that involve customer participation will aid in developing a rapport between the driver and the customer and will provide excellent publicity for the news media.

#### Advertising Programs

The benefits of paid-space advertising are difficult to assess, mainly due to a lack of information available from the daily operation of the system. Studies to determine the effect of an advertising campaign generally result in either an inconclusive report due to other influences affecting ridership at the time of the campaign or a negative report on the value of the expenditure.

A new opportunity exists for expanding the effectiveness of the paid-space dollar. By law, radio and TV stations must now devote a certain amount of their commercial time to public service announcements. Non-profit municipal transit operations qualify for this air time.

Another method frequently used to get paid-space and

air time advertising at low cost is the exchange. Space for advertising cards inside and outside of the bus fleet is provided free to radio and TV stations and newspaper publishers in exchange for an equivalent free exposure of advertising messages in their media.

The basis for the advertising copy should be periodic attitude surveys, if feasible, or the continual feedback from citizen groups and drivers. An advertising agency should be retained to prepare the copy, recommend the expenditure by media, and purchase the space based on a brief prepared by transit system personnel giving the target audiences and concepts to be advertised.

#### Promotional Programs

Customer-oriented promotions are a valuable and low-cost method of increasing ridership and of keeping the transit system visible in the news. They should be based on targets of opportunity that are consistent with a specific purpose — i.e., off-peak travel, the elderly rider, Holiday Season shopping, the early shift worker, and the suburbanite. Frequently, expenses can be shared with local businessmen who will support the program in hopes of a reasonable return on their investment.

The main purposes of special promotions are to introduce service to specific target groups and to encourage the habit of making trips via transit.

Some general examples of special promotions are the following:

*Ride Home Free.* An inducement that can be aimed at any time of day favorable to the transit operator. Passes can be distributed on the bus at the time of entry for the initial leg of the journey or can be given out at participating retail stores or banks; these establishments would pay all or part of the cost.

*Special Family Fare.* Available on weekends or for special shopping events such as back-to-school shopping days; pre-Thanksgiving, Christmas or Easter shopping periods; or special sale days.

*Ride All Day.* A promotion aimed at introducing service on a day, week, or month that has a traditionally low level of patronage. It encourages the rider to study the entire system to determine how it meets his travel needs in order to get the maximum benefit from the system-wide pass.

*Low-Fare Special.* A "Nickel Day" promotion has been successfully conducted. Even though individual fares were appreciably lower in this instance, revenues nearly covered operating expenses for the day due to patronage at four times the normal levels.

*Park-N-Ride.* Several programs have been conducted with excellent results in attracting the automobile commuter to the bus by providing parking lots for his use. The cost to the bus company is often minimal since many parking spaces are available in the suburbs during commuting time. Examples are churches, remote sections of shopping center lots, drive-in movies, amusement parks, and athletic

stadiums. In some instances, greatly reduced fare incentives are given to those who carpool to the park-n-ride facility to compete directly with the carpool — one of mass transit's major competitors.

**Bus Decoration.** Dramatic color schemes and designs have been successful in attracting attention to the transit system, giving the image of a responsive modern service and providing newsworthy events that receive good coverage in the press, radio, and TV. Examples are a Christmas bus painted as a gaily wrapped present, used for shuttle service between park-n-ride lots and downtown and a people bus, wildly painted with caricatures and scenes in a modern mode by a commercial artist retained for the purpose.

**Special Passes.** Identification passes or special tickets based on time (weekly, monthly, off-peak daily, or shopping season) or type of customer (elderly, disadvantaged, student, newcomer, commuter, or shopper) are an excellent way to attract new riders. Financial support for each individual program should be solicited from either the public agencies serving that constituency (Welfare, Medicare, Park Departments) or the businesses that benefit (downtown merchants, major employers, land developers, apartment complex owners).

**Charter Service.** In addition to the normal opportunities for charter service (e.g., school, tourist, and special athletic events), an opportunity is developing for special commuter groups having a common destination (for example, a large manufacturing complex or a central business district) and/or a place of origin (for instance, a "new town" planned unit development or major apartment complex).

**Preferential Treatment of Buses.** Several examples of preferential treatment of buses are found in cities where buses travel in the CBD on "buses-only" streets or in "buses-only" lanes.

## THE DO'S AND DON'TS OF MARKETING

The advantages of the marketing approach to aid product distribution are legion. Examples of the successful implementation of marketing techniques in the field of transit have been evident over the past several decades, with a few recent programs showing promising results. Appropriate marketing techniques from the consumer field must be adapted for transit. These, along with a review of the previous and current marketing techniques in the transit industry, will help in developing an approach that is meaningful for transit today. The failure of specific previous programs should not preclude further examination of the same methods for current transit application. Public attitude has changed and currently favors maintaining and improving transit. Also, traffic congestion, air pollution constraints, and increasing numbers of transit-dependents provide new impetus to transit and a receptivity to appropriate marketing techniques for increasing ridership.

As with any program, there are inherent advantages and

cautions to be considered in developing and implementing a plan. Some advantages are the following:

- Support of the general public for maintaining and improving transit as a true community need.
- Improved mobility for the transit-dependent (e.g., the elderly, handicapped, disadvantaged, young, and unemployed).
- Convincing arguments and real alternatives in travel for the auto-dependent.
- Increased transit patronage to reduce subsidy payments and to relieve traffic congestion and air and noise pollution.
- Increased commerce through facilitating optional shopping and recreational trips not now made because of difficulty in undertaking the trip.
- Improved land use through acceptance of transit as a reasonable means of travel from concentrations of multiple dwelling units to employment centers, and through the upgrading of downtown land uses from parking facilities to more highly taxed commercial structures.

Some cautions are those given below:

- A sales orientation must permeate the entire transit organization, giving the person with marketing responsibilities the opportunity to participate in virtually all decisions.
- The program should be sufficiently developed so as to have a meaningful impact. A minimum of 2-percent of operating revenues should be budgeted for out-of-pocket expenses.
- Goals and objectives for the entire marketing program must be established at the outset, with specific measurable goals developed for each element to provide accountability at designated milestones.
- Data bases must be established (if non-existent) and updated to provide a measure of the cost/benefit of each marketing program element and to develop input for changes in emphasis.
- The program must be continuous to provide a constant reminder of the transit company's desire to serve and to repeatedly inform the public of the specific benefits available through transit usage.
- Marketing techniques currently applied in the industry must be constantly monitored for specific application under local conditions.

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*This article on Transit Marketing is excerpted from a monograph written by Richard Walbrecker, vice president, Alan M. Voorhis and Associates, Inc., Transportation and Urban Planning Consultants, McLean, Virginia. The entire monograph, with several others prepared by the company, appears in Short-Range Transit Planning, published by the U.S. Department of Transportation and Urban Mass Transportation Administration.*



**MARKET THE SERVICE.** Marketing may range from traditional means—such as newspaper announcements and articles, notices posted on bulletin boards throughout town, and the distribution of simple flyers announcing the service—to more novel methods, such as conspicuous buses painted in psychedelic colors or special discounts on theater admissions or food purchases to anyone arriving in a bus. In a paper delivered at the 5th Annual Demand Responsive Transportation Conference in 1974, one speaker described some of the successful promotion techniques used by the Central New York Transportation Authority:

*"Special promotions and services are always good news for senior citizens and the disabled in these times of rising prices. For example, the Central New York Regional Transportation Authority induced a local theatre chain to offer a \$1.00 admission for Saturday matinees to anyone who arrives on Centro's Call-A-Bus. This is a substantial saving from the \$3.00 regular admission, increases Saturday Call-A-Bus ridership and is excellent public relations."*<sup>1</sup>

A food chain also agreed to work with the New York Authority whereby a bus rider who purchased a package of ten bus tokens received four coupons worth \$1.50 redeemable for a hamburger, milkshake, soft drink, and dessert.

One approach successfully employed by several transportation services is the adoption of distinctive, identifying elements such as distinctive colors on the buses, logos, and uniforms. Almost all transit services emphasize the importance of friendly, courteous bus drivers, who are one of the best advertisements for the service.

Following is a list of possible methods of publicizing the service:

- Posters in key public locations such as schools, stores, major employment centers, convalescent homes, hospitals, city halls, public housing complexes.
- flyers distributed by chambers of commerce, utility companies, service clubs, charitable organizations.
- announcements on radio, television, and in newspapers.
- door-to-door distribution of flyers.
- arrangements with downtown associations and shopping centers for special bargains to bus riders.

<sup>1</sup>Warren H. Frank, "Improving the Image of the Total Transit System by Marketing and Promoting the Demand Responsive Element," 5th Annual Demand Responsive Transportation Conference of the American Transit Association, Oakland, November 13, 1974.



Northwestern Iowa Rural Transportation Conference

Attached are copies of the "Vehicle Maintenance and Servicing" workshop presentation and the literature handed out to participants. This information is being furnished for possible use in your conference proceedings book. Areas of specific discussion and questions that arose during the workshop are listed below.

1. A warranty problem was discussed on the Fortibus purchased under 16 (b) 2 being operated by the Humboldt-Dakota City Senior Citizens. A determination was made that the problem as described should be a body manufacturer warranty adjustment. Contact has been made with Mr. Emery Hadley of Saf-T-Liner Bus Sales and resolution of the problem is now in progress.
2. The need for a daily check of the vehicle by the driver was discussed and the problem that occurs if the driver does not have an aptitude geared toward vehicles. The "Motor Pool Service Check List", provided to all participants, is a simple form and will serve as a good guideline for use due to its simplicity and brevity.
3. Information was provided about who to contact in Purchasing and Inventory to purchase parts and materials under Iowa D.O.T. contracts at our reduced prices. This of course, applies only to political sub-divisions in the State of Iowa. If a city is sponsoring a transportation program, this may be of benefit.
4. Information was requested from each participant about their maintenance set up. In particular, we were interested in whether or not non-warranty service and repair would be handled by the organization's own mechanic, a local repair shop, or through an arrangement with a city garage or private bus line. The variety of methods used to obtain service work could be a major discussion area by itself. The information obtained is useful background for the Fleet Management Office.

Terry Fritz

October 1, 1976

Page 2

5. A brief discussion was held on the communications systems being used or planned. Primary use seems to be the C.B. radio for emergency use only.

WDT:jak

Attachments

There are four basic records that we use in fleet operation; they are as follows:

1. Data Sheet
2. Lube Recommendations
3. Service Record
4. Repair Record

1. The data sheet provides the component part numbers of a vehicle, with sizes and dimensions. These numbers are taken from the vehicle at time of purchase and can be referred to without scanning a parts book when an item is needed. The code numbers on your example sheets have been set up by our organization to correspond to our own parts catalogue.
2. Lube recommendations were developed from the manufacturer's instructions that come with each vehicle. These list the frequencies of oil changes, filters, and the products they recommend. Since we buy our oils and greases on military specifications in large quantity, we designate oil as H.D. 10 W 30 and automatic transmission fluid as "Dexron" and also set our own frequencies for service. Frequency of oil and filter change is less than that stipulated by the manufacturer due to our differences in operation. Oil should be changed more often in units that have high idle time on engines, and vehicles subjected to salt and slush conditions of the road require a more frequent lube.

3. The Service Record we use is a universal type designed for a variety of vehicles and is a life history of the lubrication and service performed on the unit. The mileage or hours are recorded for each servicing and the frequencies between service, then initialed by the mechanic or operator performing the service. These are periodically reviewed by supervisory personnel, and the vehicle is also inspected to assure that the service has actually been performed.
4. A Repair Record sheet is made out for every vehicle when it goes into service and is kept as long as we have the vehicle. This form stays with the unit until disposed of and all repairs are recorded by the date of repair. An entry is made showing the odometer or hour meter reading of the vehicle, which can be referred to when a tune-up is due or some other item needs to be checked. This history of all repair work is very useful to the mechanic doing the work and as a means of evaluating recurring problems of the unit.

For vehicles on daily dispatch out of our pool, which is centrally located, we use a check list to assure each car has been given a routine inspection for good appearance and reliability. This helps to prevent unfavorable comments from users of all departments on our 180 vehicles of the pool. It also aids in pinpointing responsibility for vehicle damage, as not everyone will admit to having had an accident while using the vehicle.

## Spare Parts Requirements

1. Determination of spare parts to be stocked is usually based on how many like vehicles are being operated out of a particular location.
2. To be able to take advantage of fleet discount on parts, some dealers consider six to seven like units as a fleet and discounts differ anywhere from 10% to 40% depending on locality, product, and agency making the purchase.
3. The suggested spare parts for one vehicle that has an employee doing service and maintenance would be the following:
  - a. 2 carburetor air filters (if paper)
  - b. 1 set of belts (alternator, power steering, air cond.)
  - c. 2 sets of distributor points and condensor
  - d. 1 fuel filter
  - e. 2 oil filters
  - f. 1 set of spark plugs
  - g. 1 set of windshield wiper blades
  - h. 1 muffler and tail pipe
  - i. 1 distributor cap
  - j. 1 distributor rotor
4. Items that should be kept in the vehicle as spare parts would be as follows:
  - a. 1 set of belts
  - b. 1 set of windshield wiper blades
  - c. 1 spare tire

## Do Not

1. Do not attempt to start a vehicle with automatic transmission by pushing or towing.
2. Do not tow or push dead vehicle w/auto more than 15 miles or exceed 30 m.p.h. With manual transmission, disconnect drive line or pull back axles.
3. Don't mismatch tires. Circumference should be the same.
4. Disengage transmission to coast.
5. Shut engine down immediately after a hard run.
6. Attempt to check radiator while engine is hot.



MOTOR POOL SERVICE CHECK LIST

Your car, license number \_\_\_\_\_, has been serviced and the following items checked to assure equipment reliability and provide you with trouble free, good appearing transportation.

Gas \_\_\_\_\_ Gallons \_\_\_\_\_

Oil \_\_\_\_\_ Add \_\_\_\_\_

Wiper/Washer \_\_\_\_\_

Horn \_\_\_\_\_

Battery Water \_\_\_\_\_

Under Hood Check \_\_\_\_\_

Tires \_\_\_\_\_ (Checked for pressure & wear)

Brakes \_\_\_\_\_

Spare \_\_\_\_\_

Safety Items in Trunk \_\_\_\_\_

Short Wave & AM Radio Operation \_\_\_\_\_  
(by Radio Communications)

Clean Interior \_\_\_\_\_

Clean Glass \_\_\_\_\_

Wash if Necessary \_\_\_\_\_

General Body Condition \_\_\_\_\_

If any deficiencies are noted in above services or others which you believe would improve our Motor Pool service, we would appreciate your comments. Also, please advise if you notice any unusual gas or oil consumption, noise or vibration.

\_\_\_\_\_ Date

\_\_\_\_\_ Motor Pool Service Representative

User Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ Driver \_\_\_\_\_ Office



## NON-EMISSION SYSTEMS REQUIRED MAINTENANCE — E-150/250/350

These maintenance services must be performed at the indicated intervals, following the procedures in this Manual. Maintenance service adjustments MUST CONFORM TO SPECIFICATIONS contained herein and as published in the 1975 Truck Specifications Manual. These services are not covered by Warranty, and the customer will be charged for the labor, parts and lubricants used.

## E-150/250/350 Vehicles (up to 10,000 lbs. GVW)

MAINTENANCE OPERATION	SERVICE INTERVAL									
	Time in Months or Mileage in Thousands, Whichever Occurs First									
	5	10	15	20	25	30	35	40	45	50
Lubricate U-joints and slip yoke when equipped with grease fittings ①	X	X	X	X	X	X	X	X	X	X
Lubricate front axle spindle pins	X	X	X	X	X	X	X	X	X	X
Lubricate steering linkage	X	X	X	X	X	X	X	X	X	X
Check Fluid Levels:	X	X	X	X	X	X	X	X	X	X
— Rear axle ④	X	X	X	X	X	X	X	X	X	X
— Transmission	X		X		X		X		X	
— Power steering	X	X	X	X	X	X	X	X	X	X
— Brake master cylinder			X			X			X	
Inspect disc brake linings, piston boots and inner shoe anti-rattle clip ⑤ ⑥ ⑦	X	X	X	X	X	X	X	X	X	X
Inspect the exhaust system including heat shields ⑧	X	X	X	X	X	X	X	X	X	X
Inspect clutch linkage ⑤	X	X	X	X	X	X	X	X	X	X
Adjust automatic transmission bands	X		X			X			X	
Lubricate parking brake pivots and devices			X			X			X	
Repack and adjust front wheel bearings ②				X				X		
Repack and adjust rear wheel bearings (Dana axles only) ②				X				X		
Inspect drum brake lining, brake lines and hoses ⑤ ⑦				X				X		
Drain and refill rear axle (Dana axle only) ③					X					X
Drain and refill automatic transmission fluid — severe service only					X					

- ① Perform each 1,000 miles in off-highway operation.  
 ② Replace front and rear wheel seals whenever a hub assembly is removed.  
 ③ Perform every 5,000 miles if towing a Class II or III trailer.  
 ⑤ To check the axle lubricant, the plug should be backed out slowly. If seepage occurs around the threads, the specified amount of lubricant is present and the plug should be turned back in immediately to avoid any drainage.  
 ⑥ If disc pad replacement is required, check rear drum linings.  
 ⑦ More frequent intervals may be required under adverse operating conditions.  
 ⑧ Remove accumulated debris and inspect shields and attachments repair or replace as required.

CY1720-A

## BRONCO, ECONOLINE, F-100-350, M- and P-SERIES

## NON-SCHEDULED MAINTENANCE

The following maintenance operations are not required at definite mileage or time intervals, but should be performed when needed. These services are not covered by the warranty.

MAINTENANCE OPERATION	FREQUENCY OBSERVATION
Clean body/door drain holes.	At least twice annually.
Check the battery and recharge if necessary (specific gravity falls below 1.230). Check connections for tightness. Clean corrosion from terminal and top of battery.	Starter turns engine slower than usual. Headlight brighter when engine is speeded up from idle.
Check headlamp alignment.	Light beam appears too high or too low while driving with a normal load.
Adjust the parking brake.	Parking brake does not hold the vehicle on a reasonable grade.
Adjust automatic transmission neutral switch.	Starter will not engage with shift selector in N(NEUTRAL) or P(PARK); or back-up light does not operate.
Lubricate door and tailgate hinges and checks.	Doors or tailgate bind during opening or closing, or noisy operation.
Check tires, wheel balance and front wheel toe. (Caster and camber are preset at the factory and are not adjustable on the Twin-I-Beam front suspension).	Poor handling characteristics and/or abnormal tire wear are experienced.
Remove excessive mud build-up from wheels, undercarriage and steering linkage. Inspect for and correct any bent or damaged components.	At frequent intervals when operating off-highway or if front wheel shimmy is experienced.
Check windshield washer fluid level — add fluid if required.	If washers do not spray fluid when operated.
Check alternator and regulator output.	Slow engine cranking, hard steering, headlights dim at engine idle speed, early or repeat electrical component failures.
Check operation of lights, horn, turn signals, windshield wipers and Washers, instruments, vent system, heater and accessories.	As required.
Check brake warning light operation.	At engine start-up.
Check operation of the clutch.	As required.
Check engine oil level.	As required — at each fuel stop.
Lubricate door locks, door latches, and hood latch.	Difficult to operate or noisy.
Check steering gear lubricant level (4x4).	When hard steering is encountered.
Check clutch master cylinder fluid level (M- and P-Series).	Sluggish clutch action or gear clashing when shifting.
Adjust service brakes (P-500).	Pedal travel is more than half the distance between the released position and the floor.
Check steering stop adjustment (M- and P-Series).	When front wheel alignment is checked.
Adjust steering gear preload, steering linkage or front wheel bearings. Check suspension and frame for loose attachments.	Excessive steering wheel play, loose steering system or front wheel shimmy.
Check wheel nut torque.	Within 500 miles after new vehicle delivery or wheel removal.
Lubricate automatic transmission kickdown linkage.	Abnormal accelerator pressure needed for forced downshift.
Check the drivshaft.	At frequent intervals when operating off-highway.
Lubricate clutch and transmission linkage. To avoid attracting dust or grit to the lube points, do not overlubricate.	Linkage action is sluggish.
Lubricate accelerator linkage lightly with the specified lubricant.	Accelerator linkage is sluggish.
Replace windshield wiper blades.	Wiper blades do not clean windshield after windshield and blades have been properly cleaned.
Check the spring leaves for being evenly stacked and the spring clips or U-bolts, rear spring front eye bolt and shackle bolts for being tight.	While the vehicle is hoisted for lubrication.
Inspect and rotate tires and check tire pressures.	Poor handling characteristics and/or abnormal tire wear are experienced.
Check and adjust transmission controls and shift operation.	When hard shifting is encountered.
Tighten frame mounted fuel tank strap bolts.	Driving conditions or inspection indicates looseness.
Check for fuel, coolant, oil or other fluid leaks.	At frequent intervals.
Check seat and shoulder belt buckles, release mechanisms and belt webbing.	As required.
Inspect the seat back latches for proper operation.	As required.
Inspect the exhaust system for broken, damaged, or missing parts.	Excessive noise or smell of fumes is experienced.
Flush and inspect complete underside of the vehicle.	At least once annually.
Adjust the service brakes.	Unusual sounds when braking, increased brake pedal travel or repeated pulling to one side.

CY1724-A











# EQUIPMENT REPAIR RECORD

Iowa State Highway Commission  
Central Services Department

Equip. Serial No. \_\_\_\_\_

License Number \_\_\_\_\_

Department \_\_\_\_\_

Type of equipment \_\_\_\_\_

Make \_\_\_\_\_

Mfrs. Serial No. \_\_\_\_\_

Motor No. \_\_\_\_\_

Other identifying numbers \_\_\_\_\_

## CLASS "A" EQUIPMENT

## INSTRUCTIONS

This record shall be kept on each item of Class "A" equipment. When equipment is transferred, record is to be transferred with the unit. Whenever equipment is repaired, this record is to be brought up to date, regardless of where repairs are made. Records shall be available for the Central Services Department and the District mechanic at all times.

**Any changes in sizes of motor parts, new replacements or improvements are to be properly noted.**

**Record of continual trouble, treatment, etc. is to be noted on detail sheet.**

## CLASS "B" EQUIPMENT

Whenever it is deemed advisable, this record can be kept on Class "B" equipment for motor information, etc.

## DISTRICT MECHANIC NOTES OR RECOMMENDATIONS

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Note: When this record is filled and no additional space remains for further notes, start a new sheet, but retain all old sheets.

CODE  
 Cld—Cleaned  
 Chd—Checked

Exch—Exchanged  
 Rep—Repaired  
 O. H.—Overhauled

DETAIL RECORD OF REPAIR WORK

UNIT	Show date and speedometer reading opposite unit repaired as successive repairs are made. Show total hours operation on machines operated on hour basis.			
Motor				
Motor—Left bank				
Motor—Right bank				
Cylinder head				
Pistons	Size	Size	Size	Size
Piston pins	Size	Size	Size	Size
Piston rings—Data				
Valves				
Valve inserts	Make & No.	Make & No.	Make & No.	Make & No.
Valve guides				
Connecting rods				
Connecting rod bearings	Size	Size	Size	Size
Main bearings	Size	Size	Size	Size
Crankshaft	Size	Size	Size	Size
Camshaft				
Timing gears				
Fuel pump				
Oil pump				
Carburetor				
Oil filter				
Air cleaner				
Governor				
Diesel injectors				
Radiator				
Fan				
Fan bearings				
Water pump				
Clutch				
Distributor				
Starter				
Magneto				

UNIT	Show date and speedometer reading opposite unit repaired as successive repairs are made. Show total hours operation on machines operated on hour basis.			
Voltage regulator				
Generator				
Lights				
Transfer case				
Transmission				
Torque converter				
Differential—front				
Differential—Rear				
Top propellor shaft				
Rear propellor shaft				
Front propellor shaft				
Front universals				
Rear universals				
Axle—front				
Axle—rear				
Brakes—front				
Brakes—rear				
Hand brake				
Wheel brg.—front				
Wheel brg.—rear				
Steering gear				
Spindles				
Power take-off				
Dump body hoist				
Hydraulic pump				
Underbody blade control				
Track				
Track rollers				
Track roller bearings				
Sprockets				
Frame				
Maintainer unit				
Controls—hand-power				

**DETAIL NOTES**

This space is provided for notes that cannot be kept in body of record, such as data on electrical equipment. Repairs, etc. of a special nature. District mechanic notes.

Handwritten notes area with horizontal lines.

**VEHICLE AUCTION PREPARATION REPORT**

All repair, parts replacement and tune up operations performed on this equipment to ready it for sale on the Commission Vehicle Auction are to be listed.

OPERATION	NEW PARTS USED (Commission No. and Description)	MECH. HOURS

LUBRICATION RECOMMENDATIONS  
MAINTENANCE DEPARTMENT  
September 1, 1973

Care and Operation of Motor Equipment

These instructions pertain to the general routine in the care and operation of the major type motor equipment.

It is imperative that any new machine be carefully checked and serviced before it is operated. Also, it is of vital importance that all equipment be checked for proper servicing and safe operating condition regardless of age or previous operation, before it is used.

New machines, as well as newly overhauled jobs, should be run-in carefully, using untreated lubricating oil or H.D. lubricating oil whichever is recommended by the manufacturer. You must familiarize yourself thoroughly with the machine you are to operate. Get the information regarding running-in period, operating and servicing of equipment by careful and conscientious study of the manufacturer's data on this particular item and then check our instructions as subsequently set out hereafter. When in doubt use manufacturer's data. Be sure you thoroughly understand the care and operation of your equipment before you use it and then assume full responsibility which is necessarily yours and fulfill the requirements necessary to insure reasonable expectancy of satisfactory service from the equipment on the job.

Equipment should be assigned to a competent operator and an alternate operator, in order that a maximum satisfaction be realized from the use of equipment and that responsibility be established to insure reasonable care and the greatest output of work and still conserve our investment in machines, whether it be in time or money. Foremen and mechanics should familiarize themselves with all machines and attachments and consider it part of their job to see that equipment continues to function up to a standard of reasonable efficiency.

Cooperation is the essential keynote of satisfactory service from equipment. No unit can operate reasonably when groups or individuals within our organization are working at cross purposes. Engineers, foremen, mechanics and operators of equipment must work in close harmony and in complete sincerity to avoid needless waste of time and money with regard to equipment operation.

Habitual neglect or outright abusive use of equipment cannot and will not be tolerated. These instructions must necessarily apply to all departments and divisions of the Iowa State Highway Commission without exceptions. No unauthorized use of equipment is permitted any time.

If the operator has trouble with equipment, he should report to the foreman in his territory immediately. It is the mechanic's job to repair and tune-up equipment. Operators are not permitted to adjust or repair machines unless an authorized service mechanic approves such work. However, it is the operator's job to keep bolts tight and machines reasonably clean at all times. Unauthorized modification will not be permitted.

STORAGE OF EQUIPMENT IN SALT SHED OR IN BUILDING WITH CALCIUM CHLORIDE WILL NOT BE PERMITTED.

Do not operate a machine on the highway unless it complies with the safety regulations as set out by law and by our own safety regulations. This is the operator's responsibility. Also, the manner in which you operate equipment with regards to safety is your individual responsibility. Be safe, be sure to be fully prepared before and while operating equipment.

Lubricating and Servicing

Exceptional or unusual conditions must necessarily develop in this large fleet which operates over such a wide area. Such instances, together with the application of proper grades of lubricants and necessary repairs, are to be taken up with the District Mechanics or the Central Services Department through the engineer-in-charge. This procedure applies also to miscellaneous motorized or unmotorized equipment for which no definite lubrication recommendation sheets have been prepared.

Special lubricants or additives in small quantities for application to meet the requirements of the manufacturer on servicing may be purchased only on approval from the District Mechanic.

This instruction will apply to and be a part of the "Lubrication Recommendation Sheets" prepared for the various individual types of equipment. As new types of equipment are added or a need is felt for changing existing recommendations, you will receive a new or revised lubrication sheet. Due to a difference in brand names or stock numbers of lubricants recommended by the manufacturers in the service manuals the Maintenance Department lubrication sheets should be used to determine the type of lubricants to be used. When lubrication information is not available on lubrication sheets, follow manufacturer's recommendations.

Following are general recommendations for various phases of equipment care:

Recommend use of magnetic drain plug on transmissions, transfer cases and differential case.

### Greasing

Greasing of cars, panels, and pickups is to be done at a maximum of 2,000 mile intervals, trucks at 1,000 miles and after storm or extreme conditions, motor graders, and crawler type tractors and draglines daily. However, if equipment is in need of a greasing before this mileage or period has been acquired, see that it is greased. When the specific recommendations for any unit state otherwise follow that recommendation. Grease fittings should be cleaned before and after greasing. HD and EHD shall be greased every 500 miles.

For miscellaneous equipment for which there is no lubrication sheet, follow manufacturer's instructions. If in doubt, take your problem up with your foreman or mechanic.

Any unit working in water or excessive dust or sand, is to be greased daily. Grease fittings should be cleaned before and after greasing.

Greasing service which is required only at time of assembly, or which involves adjustment of vital parts is left to the mechanic and therefore not listed generally.

Multi-purpose grease is a specially compounded grease to be used for wheel bearings, chassis, and water pump. It should not be used for critical lubrications calling for an extreme pressure grease. When special grease not stocked by Inventory Management is required in small quantities, it should be purchased locally.

### Transmission Lubricants

Seasonal change of summer and winter grades of transmission and differential lubricants are to be made somewhat in line with the weather conditions, normally during the months of April and October. This will be true of all equipment unless recommendations for specific equipment state otherwise or unless seasonal use of equipment eliminates the need of change of grades of lubricants. Recommend use of magnetic drain plug on transmissions and transfer case and differential case. Transfer cases shall be checked daily when unit is being used for snow removal operation.

## Oil Change

Our equipment shall be fitted with oil filters and approved type air cleaners, and these units are to be serviced as required by the accessory manufacturer. If it is not so equipped, check with the District Mechanic.

Please note the following recommendations as to oil changes:

Oil and filter pack must be changed, regardless of color, at a maximum of 2,000 miles in cars, pickups and light duty trucks, Class 4, 5, 6, and 7 and at a maximum of 60 hours on motor graders and tractor equipment. Lubricating oil in four-wheel-drive trucks rotary snow plows, pulvi-mixers, etc., (in all units assigned to heavy maintenance operations or extremely dusty conditions) must be changed regardless of color at a maximum of 500 miles or 30 hours. (See Service Bulletin #2, for Idle Equipment) Service air cleaners daily or twice daily if necessary. Watch oil and filters carefully. Watch oil gauge and if pressure drops, check crankcases for oil pump clogging. Do not operate motors with oil pressure below normal unless mechanic gives you special permission to do so. Oil is to be checked daily for proper level. Drain crankcase while oil is hot. Report discoloration of oil which may be caused by raw fuel or water leaking into crankcase. On late model H.D. four-wheel drive trucks, check individual lubrication sheets, special notes.

Clean sump thoroughly when changing element. Small sander motors, power broom motors, and kindred equipment should have the oil and filter pack changed daily, and air cleaner and breather equipment serviced twice daily if needed.

## Wheel Bearings

It is essential that wheel bearings be checked periodically for grease requirements and adjustments. See your mechanic for servicing of wheel bearings. Coat inside of hubs and spindles with thin coating of grease when packing. Do not over-lubricate. All wheeled vehicles shall be checked annually for wheel bearing lubrication, brake linings and adjustments, both "A" and "B" equipment.

## Needle Bearing Universal Joints

Use low pressure hand gun only such as the #4015-A Alemite gun, to avoid undue pressure which will destroy oil seals for which lubrications sheets recommend multi-purpose grease.



### Hypoid Oil (Do not use in Transmission and Transfer Cases)

Points at which hypoid oil is used require watching. When oil turns a yellow color, immediately drain, flush and replace with fresh oil. Kerosene is satisfactory for flushing hypoid oils.

### Transmission and Differential Lubricants

Maintain proper oil levels in the transmission and differential. Do not add our oils to those furnished to you in new machines. These oils may not mix without causing damage. Do not overfill gear boxes. Drain, flush, and refill with our own lubricants as soon as the manufacturer's recommendations permit. Units without drain plugs should be cleaned and flushed using a Rose suction gun. Recommend use of magnetic drain plug on transmission and transfer case.

### Crankcase Ventilation Valve

Positive crankcase ventilation valve should be replaced at 12,000 miles if it is not type that can be cleaned.

### Service Bulletins

For further information regarding the care and maintenance of motor vehicles and equipment consult the service bulletin.

NOTE: At the time seasonal lubrication services are performed we can prevent a great deal of glass breakage, if all glass channels are coated with a silicone spray. This material is available at all automotive jobbers in small pressurized containers.

NOTE: All containers labeled with the designations EP, TW, TS, etc. should be relabeled using Hypoid SAE # and/or Transmission SAE #, etc.



LUBRICATION RECOMMENDATIONS

Equipment American Motors

DATE: September 1, 1973

MODEL: Ambassador Matador

MAINTENANCE DEPARTMENT

SHEET Sheet No. 1

Unit	: Kind of Lubricant	SAE		: Remarks
		: Summer	: Winter	
Engine	: H.D. lube oil	: 10W30	: 10W30	: 2,000 miles 24,000 miles
Automatic Trans	: Dextron	:	:	: change
Differential-Conventional	: Gear oil E.P.	: 90	: 90	:
Differential-Twin Grip	: Limited slip gear lube	:	:	:
Power Steering	: Dextron	:	:	:
General Chasis	: Multi purpose lube	:	:	: Every 2,000 mi : after warranty
Exhaust Control Valve	: Heat valve lubricant	:	:	:
Brakes	: H.P. disc brake fluid	:	:	:
Fuel Filter	:	:	:	: Change at : 12,000 miles
Charcoal Canister Filter	:	:	:	: Change at : 12,000 miles
PCV Valve	:	:	:	: Change at : 12,000 miles
	:	:	:	:
	:	:	:	:
	:	:	:	:
	:	:	:	:
	:	:	:	:

LUBRICATION RECOMMENDATIONS

Equipment Plymouth-Dodge - cars,  
station wagons & pickups

DATE: September 1, 1973

MODEL: All

MAINTENANCE DEPARTMENT

SHEET Sheet No. 3

Unit	: Kind of Lubricant	SAE		Remarks
		: Summer	: Winter	
Engine	: H.D. Lubricating Oil	: 10W-30	: 10W-30	: @ 2,000 mi.
Automatic Transmission	: Dexron	:	:	: Drain, repl. filter, & : refill every 32,000
Differential	:	:	:	: Note "A"
General Chassis	: Multi purpose Grease	:	:	: 2000 miles
Power Steering	: Dexron	:	:	:
Steering Gear	: Transmission Oil	: 90	: 90	:
Ball Joints	: Multi-purpose Grease	:	:	: Note "B"
Wheel Bearings	: Multi-purpose Grease	:	:	: Only front : wheels
Distributor shaft	: Untreated Lube Oil	: 30	: 10	: Those with : Oil cup
Starter	: Untreated Lube Oil	: 30	: 10	: Those with : Oil cup
Air Cleaner, Oil Bath	: Untreated Lube Oil	: 30	: 10	: Note "C"
Disc Brakes	: Heavy Duty Brake Fluid	:	:	:
Hydraulic Brakes	: Heavy Duty Brake Fluid	:	:	:
	:	:	:	:
	:	:	:	:

Note "A": Sure grip differential on all model use lubricant I.S.H.C. stock Number 219 492750.

Note "B": After warranty period, install grease zerks and lubricate every 2,000 miles; cars only.

Note "C": Mitronic or dry type air cleaner filter element - see manufacturer's recommendation.

LUBRICATION RECOMMENDATIONS

Equipment Trucks - 2 ton  
 Ford Prior 1972

DATE: September 1, 1973

MODEL: All

MAINTENANCE DEPARTMENT

SHEET Sheet No. 113

Unit	: Kind of Lubricant	SAE		: Remarks
		: Summer	: Winter	
Engine	:H.D. Lubricating Oil	:20W-40	:10W-30	: Change at 2000 miles
Transmission	:Transmission Oil	: 90	: 90	:
Differential	:Hypoid	: 90	: 90	: See Note "A"
General Chassis	:Multi-purpose Grease	:	:	: Service at 1000 miles
Clutch Release Shaft	:Multi-purpose Grease	:	:	:
Clutch Release Equalizer Shaft	:Multi-purpose Grease	:	:	:
Power Steering	:Dexron	:	:	:
Steering Gear	:Hypoid Oil	: 90	: 90	:
Universal Joint	:Multi-purpose Grease	:	:	: Hand gun
Propeller Shaft, Clip Joint	:Multi-purpose Grease	:	:	:
Generator	:Untreated Lube Oil	: 30	: 10	:
Air Cleaner-Oil Bath	:Untreated Lube Oil	: 30	: 10	:
	:	:	:	:
	:	:	:	:
	:	:	:	:

NOTE "A": Same as F-750

LUBRICATION RECOMMENDATIONS

Equipment Trucks, International

DATE: September 1, 1973

MODEL: 1700, 1800, 2010A

MAINTENANCE DEPARTMENT

SHEET Sheet No. 121

Unit	: Kind of Lubricant	SAE		Remarks
		: Summer	: Winter	
Engine	:H.D. Lube Oil	:20W-40	:10W30	:30 hr. Chang
Distributor Shaft	:Untreated Lube	: 30	: 10	:
Dist. W/Tac Drive	:Multi-purpose Grease	:	:	:
Air Cleaner, Oil Bath	:Untreated Lube	: 30	: 10	:
Transmission	:Transmission Oil	: 90	: 90	:
Aux. Trans.	:Transmission Oil	: 90	: 90	:
Transfer Case	:Transmission Oil	: 90	: 90	:
Differential				
Front and Rear	:Hypoid Oil	: 90	: 90	:
Propeller Shaft	:Multi-purpose Grease	:	:	:
Universal Joints	:Multi-purpose Grease	:	:	:
Front Axle Yokes & Pivots	:Multi-purpose Grease	:	:	:
Tie Rod Bushings	:Multi-purpose Grease	:	:	: 1700 and 1800 : Daily
Steering Gear	:Transmission Oil	: 90	: 90	:
Power Steer	:Engine Oil	:10W-30	:10W-30	:
Clutch Release Sleeve	:Multi-purpose	:	:	: Springly Clean Hyd. Filtr
Hydraulic System	:Hoist Oil	:10W	:10W	: annually
Alcohol Evaporator	:	:	:	: Check Daily do not : over fill: Keep 2/3 fu
Air Tanks	:	:	:	: Drain Daily -Leave (
Compressor Air Strainer	:	:	:	: over night if possib
				: Clean 5000 miles or
				: semiannually
General Chassis	:Multi-purpose Grease			: 500 miles or 30 hrs.

There are over 12 million physically disabled persons in the United States today. The seriously handicapped include 250,000 wheelchair patients, 2 million orthopedically impaired, as well as 5 million cardiac patients, who can no longer climb stairs or walk long distances.

We must realize that virtually all of us are handicapped at one time or another. Every time we must carry packages or a suitcase, or even escort small children, several limitations are placed on us by the barriers incorporated within our transit system.

The use of public transportation by the handicapped is often avoided simply because inconveniences exist in present systems. In certain instances, the barriers become much more than architectural in nature. Moving crowds, the pressures to meet schedules, fear for personal safety, and public attitude to aid the handicapped are only a few sociological barriers that must be dealt with. While these "social" factors are primary considerations influencing everyone's decision to use public transportation, they are more likely to be preventive for the conscious-minded handicapped.

It is important that the problems which face the handicapped passenger be identified and thoroughly understood by designers of transportation systems.

Mobility is one of the keys to allowing those with physical disabilities to participate more fully in life. Because our patterns of land use and activity location have evolved in such a manner as to spatially separate residences from places of employment, shopping, schools, and medical facilities, it is necessary for handicapped persons. The dispersion of activities

is of course the product of the use of the automobile, but many of those with physical disabilities are unable to drive. To enable this group to participate in normal activities, some form of public transportation service specifically designed to accommodate mobility-limited persons is a necessity.

I believe we must all realize that by denying public transportation to handicapped individuals we are also denying to a large percentage of our population the opportunity of better education, more recreation, more social contacts, and better opportunity for employment. This is particularly important in our work-orientated society, where the handicapped person not only loses income, but a sense of personal worth and accomplishment.

Transportation is a crucial problem in the development of our cities today. We are plagued with poorly designed and barrier-ridden systems that not only do not meet the needs of the handicapped, but begin to inconvenience even the average transit rider. It is these problems that face our transportation systems that are so critical to our cities today. We have today in our technological society waited too long to adopt systems that are accessible to everyone. It is critical that we reverse the severe economic and human loss that is attributed to our barrier-ridden transit system and adopt the highest design standards to truly make our transportation systems barrier-free environments. We must design systems that meet the needs of the handicapped so that future systems will be safer, more comfortable, and more desirable for all public transportation passengers.



Regional System Operation

Pam Hunt, Transportation Coordinator  
Senior Transit System, Ottumwa

I have been asked to speak today on Regional System Operations and to include such areas as staffing, responsibilities, our method of dispatching and scheduling, as well as driver training and just how local support is gained.

My responsibilities as Area Transportation Coordinator range from general supervisory responsibilities to personnel training to planning and research for funding sources to providing accountability to the State Commission on Aging for funds received under Title III.

Our dispatchers are referred to as site managers because their responsibilities include not only transportation for the elderly but also congregate meals and information-referral. However, in the transportation program, their responsibilities include taking reservations, dispatching, driver supervision, record keeping and volunteer training to name a few.

Our drivers not only drive the mini-bus but also are responsible to see that their vehicle is maintained, and in safe working order. Our drivers are required to assist each passenger in whatever way possible be it boarding the bus or carrying parcels to their door.

At the initiation of our transportation program 3 years ago, major contact persons were located in each county. These key people made contact with numerous others to determine how and when the mini-bus should serve their needs. It was from this type planning and surveying, our present system evolved. Each of our counties are divided in four sections with one served each day. On the fifth day of each week, the bus is free to travel to another of our counties or outside the area to another town where special medical services can be received or business can be transacted. Some counties requested to return to the same places frequently such as Iowa City or Des Moines and they have chosen to designate a certain time each month to travel there. However, some counties want to go various places and when a capacity load has been reached the trip is scheduled.

Our dispatching centers are located in the county seat town. At that center, collect calls are received from all over the county. We request 24 hours advanced reservations, however, same day service is provided in county seat towns as well as out in the county on an emergency basis. We find that the people relate very well to our dispatchers when they're located in the county, however, little success is seen when dispatching is done from one point in the Area. Especially when the Area is 5,000 square miles such as ours is.

Our buses receive regular maintenance checks by reputable mechanics in each county. We have found that this increases our local popularity as well as providing a source to promote public awareness. In our area, these mechanics have been extremely cooperative in scheduling around our hours of operations and servicing a van in the evenings.

The Drivers have received training in first aid which included problems particularly relating to elderly such as strokes, convulsions, choking, and CPR. This was conducted by the Health Coordinator at the Community College. The Highway Patrol has provided two different Defensive Driving Training Seminars for our employees. The staff has also had multi media first aid conducted by the Ottumwa Police Department and Community College cooperatively.

We are very dependent upon our County Advisory Committees to promote and help us generate local support. These Committees have representation from the County Board of Supervisors, participants in the program, service agencies, and interested citizens. Through this structure we feel we have opportunity to inform and receive advise from the general public and reach our target population.

Local support in terms of our financial support come from the Boards of Supervisors, City Councils, and donations from fund raising drives and service contributions. The local support is used to provide continuous and smooth operations.

Questions?

CONFERENCE PARTICIPANTS



List of Participants  
Northwestern Iowa Rural Public Transportation Conference  
Fort Dodge, Iowa                      September 30, 1976

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P.O. Box 98  
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DeWitte, Thomas E.  
Iowa DOT, District 3  
P.O. Box 987  
Sioux City, IA 51102

Dunn, Barbara  
DOT Commissioner  
Ames, IA 50010

Finn, Ed  
Federal Highway Administration  
Ames, IA 50010

Fritz, Terry  
Iowa DOT  
Des Moines, IA 50321

Gross, Joanne  
Iowa DOT  
Des Moines, IA 50321

Haar, Rose M.  
Iowa Lakes Area Agency on Aging  
300 S. 18th Street  
Estherville, IA 51334

Hadley, Emery  
Saf-T-Liner Bus Sales, Inc.  
1500 E. Broadway  
Des Moines, IA 50316

Heisner, Larry  
NW Iowa Regional Council of Governments  
407½ Grand Avenue  
Box 406  
Spencer, IA 51301

Hinde, Ramon

Hunt, Pam  
Area XV Agency on Aging  
Industrial Airport  
Ottumwa, IA 52501

Koob, Maude  
Senior Citizens  
LuVerne, IA 50560

Krause, Repr. Bob  
State Legislator  
RR 1, Box 154  
Whittemore, IA 50598

Larson, Rod  
Iowa Northland Regional Council of Gov'ts.  
Waterloo, IA 50701

Latta, Lloyd A.  
Friendship Haven, Inc.  
South Kenyon Road  
Fort Dodge, IA 50501

Meiers, Donald D.  
Regional XII Council of Gov'ts.  
P.O. Box 663  
Carroll, IA 51401

Miller, Lenore F.  
Sunrise Manor  
5501 Gordon Dr. East  
Sioux City, IA 51106

Mittan, Ron  
Easter Seal Society  
1513 So. Pensylvanie Avenue  
Mason City, IA 50401

Moore, Larry D.  
Badger Body and Truck Equipment Co.  
6636 Grover Street  
Omaha, NE 68106

Mott, Milford  
1101 Third Avenue NW  
Pocahontas, IA 50574

Motz, Rick  
SIMPCO  
P.O. Box 447  
Sioux City, IA 51101

Myers, Daniel  
Comprehensive Systems, Inc.  
1700 Clark Street  
Charles City, IA 50616

Nadler, Mike A.  
Gov. Comm. on Employment of Handicapped  
East 14 and Grand  
Des Moines, IA 50316

Nikkel, Linda  
Wright County Opportunity Center  
Clarion, IA 50525

Olson, Mary Ann  
Iowa Commission on Aging  
Des Moines, IA 50516

Olson, Peter H.  
MIDAS Council of Gov'ts.  
Fort Dodge, IA 50501

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North Central Iowa Area Agency on Aging  
500 College Drive  
Mason City, IA 50401

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1011 Third Avenue NW  
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Roush, Carole  
Woodbury County Comm. Action Agency  
1015 - 8th Street  
Sioux City, IA 51101

Ruse, Mary  
Humboldt County Senior Citizens  
112 North 11th  
Humboldt, IA 50548

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500 College Drive  
Mason City, IA 50401

Sims, Sue  
Congressman Berkley Bedell  
406 Federal Building  
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Ames, IA 50010

Smithson, Leland  
Iowa DOT  
Ames, IA 50010

Solem, Odell C.  
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Mason City, IA 50401

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Estherville, IA 51334

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Iowa DOT  
Ames, IA 50010

Veenker, Raymond  
Good Samaritan Center  
606 South Seventh  
Forest City, IA 50436

Williams, Paul  
Social Services  
Box 790  
Spencer, IA 51301

Zeimen, Alphons  
Plymouth County Senior Citizen Members  
Lemars, IA 51031

Zeimen, Mrs. Alphons  
Plymouth County Senior Citizen Members  
Remsen, IA 51050





EQUIPMENT INFORMATION





# Transette<sup>TM</sup> Vista by Wayne



## The highest quality ride at lowest cost per passenger

The all-new Transette Vista is specifically designed to meet today's growing demand for comfortable, quality-built buses that eliminate the need to pay for unused capacity. It provides spacious seating for 15-17 adults, has a 6' 5" no-stoop entrance, 6' 3" stand-up headroom and 7' 5" interior width with wide aisle. Handsome, high-styled interior, smooth, stable ride and sight-seeing visibility make it an immediate hit with

passengers. Drivers like its exceptional maneuverability. And you'll like the economics of lower initial cost, lower operating cost, lower maintenance cost and profit-boosting popularity with riders. Before you invest in any bus, see the many quality features of this heavy-duty "baby" transit. Ride in it. Drive it. Compare it with any others.

### BODY SPECIFICATIONS:

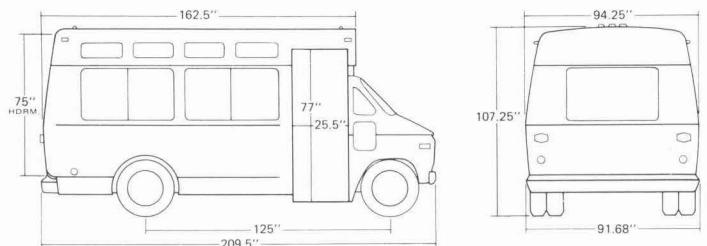
The Wayne Transette body meets most small bus specification requirements, exceeds Static Load Test requirements, complies with the safety standards of the Urban Mass Transit Administration and conforms to Federal Motor Vehicle Safety Standards.

**Dimensions:** Width: Exterior 94¼". Interior 89" maximum. Length: Overall chassis and body, approximately 210". Interior height: 75" at aisle. Exterior height, mounted: 107.25" approximately.

**Floor:** Exterior grade 5/8" plywood applied over steel floor panels. Double-section 16 and 18-gauge continuous sill members around perimeter of body at floor line. 14-gauge steel support gussets extending from floor to chassis. Steel wheelhouse assemblies Huckbolted to floor. Floor and wheelhouses undercoated for added rustproof protection.

Smooth .125" rubber covering under seats. Ribbed .187" rubber in aisle with aluminum molding at edges. Galvanized, stucco-embossed, clear-coated cove molding between side wall and floor for ease in cleaning. Front platform covering, ribbed rubber. Wheelhouse covers, smooth rubber. Floor cover color-coordinated with seat trim colors selected.

**Side:** One-piece 18-gauge steel exterior side panels from front to rear of entire passenger compartment. Side posts of hat section design, 14-gauge steel. One-piece full-length passenger compartment embossed steel panels with hemmed edges from window line to seat-mounting crash shield. Crash shield, at each side, is one-piece, full-length, 13" deep, 16-gauge steel from lower inner wall to floor panel. Inner surfaces of all exterior panels sprayed with sound-proofing insulation. Trim mouldings, stainless steel, 1" wide, attached to body just below windows and at top of the skirt panels.





# Transette<sup>TM</sup> Vista by Wayne

**Rear:** Die-formed exterior corner panels of 20-gauge steel reinforced with a total of 6 pillars for added rear impact resistance. Chrome-plated rear bumper of one-piece wrap-around design, attached to chassis frame. License plate bracket installed on lower left-hand rear of body.

**Roof:** Exterior roof: One-piece, molded fiberglass; .125" thick.  
Roof bows: 12-gauge galvanized steel "Z" section, 1 3/4" x 2 1/8" with 12-gauge steel gussets to roof rails. Five full-length longitudinal roof strainers. Three rows of 14-gauge "Z" sections in center area of roof. Two rows of 14-gauge "Z" sections at sides of roof. Two vertical strainers at rear of roof from the body frame header to rear roof bow—12-gauge "Z" section.

**Interior roof:** Two, one-piece full-length panels from front to rear; embossed steel with hemmed edges.

**Entrance:** Two-leaf, out-folding doors with safety seal at center; directly opposite driver. Door opening: Height 77" from top of first step to entrance header; width, 24". Stepwell: Galvanized steel; two steps covered with ribbed, molded rubber. Ground to first step, 11 3/4"; risers, 7 1/2"; tread, 24 3/4" x 9". Stepwell light operated automatically by door control.

**Windows, Side:** Six windows, 2 large windows for seated passengers and 4 standee windows, each side; all laminated smoked glass. Large windows are horizontal sliding, 45.50' x 28" overall; aluminum, rust-resistant frames; meet escape opening, performance and operational requirements of Federal Motor Vehicle Safety Standard 217; emergency operation decals included. Standee windows have 19.50' x 7.50' daylight openings.

**Window, Front:** Large standee viewing window, above windshield; 8.74' x 42.74' daylight opening; smoked glass, laminated.

**Window, Rear:** Huge, 49.50' x 28" overall; smoked glass, laminated. Emergency operation decal included.

**Seats:** Backs and cushions, full-foam construction with 1/2" plywood. Frames, 1" diameter tubular steel, wall mounted. Choice of durable vinyl and fabric upholsteries. Variety of seating plans available. Maximum seating capacity, 17 adults. Seating plans are also available for "Special Care" Transettes specially designed for transportation of

the physically handicapped. "Special Care" Transette accommodates wheelchairs and regular seats. Mechanism locks wheelchairs to walls when bus is in motion. Easy loading and unloading through wide side doorway, via an electro-hydraulic elevator.

**Electrical:** All exterior lights and reflectors—type, location and hook-up—conform to Federal Motor Vehicle Safety Standards. Exterior lamps: 2 combination tail, stop, turn, back-up and license plate lamps, marker identification and clearance lights. Interior lights: Dome light in driver's compartment and 8 flush-mounted dome lights in passenger compartment. Illuminated electrical control panel with electrical circuits protected by circuit breakers. Plug-in type wiring harness with number-coded circuits.

**Air Conditioning:** 26,000 BTU/hr. Roof-mounted condenser. Interior evaporator mounted above rear window. Cool air distribution via two full length ducts, one on each side above windows; adjustable outlets for each seating position. Compressor, driven by engine. (Note: Overall height of vehicle fitted with air conditioner, 114".)

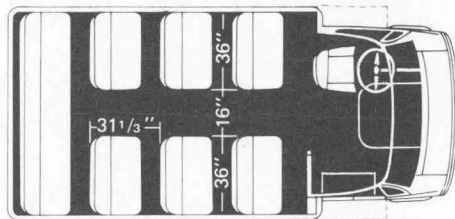
**Heater, Rear:** 35,100 BTU/hr. floor-mounted heater under rear right-hand seat. (For front heater, see chassis specifications.)

**Painting:** Perma-Zinc eleven-stage paint system deposits zinc phosphate coating and zinc chromate primer. Three-color exterior paint design, colors of your choice, enamel. Interior painted Royal Ivory, enamel.

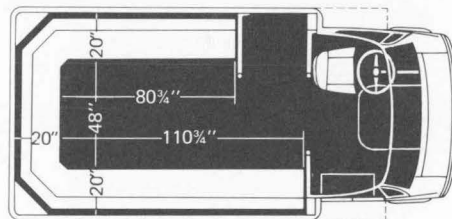
**Additional Standard Items:** Exterior: Chassis-supplied fuel tank shielded from exhaust system. Outside fill spout. Drive shaft loop guards installed. Chrome-plated left and right-hand 7' x 10' exterior mirrors with breakaway mounting brackets.

Interior: Stepwell shield of 22-gauge embossed galvanized steel. Grab rail and stainless steel clad stanchion and guard rail at entrance. Stainless steel clad guard rail and stanchion located behind driver's seat. Standee hanger rails. Ash trays.

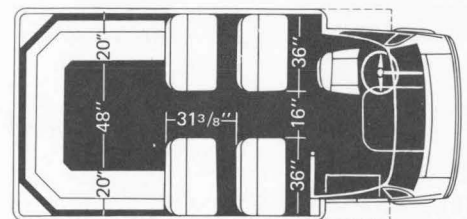
**Optional Extras:** Static roof vent, interior luggage compartment, radio, public address system, driver's signal chime, destination sign, and others.



17 Adults



15 Adults



17 Adults

## CHEVROLET AND GMC CHASSIS SPECIFICATIONS

Chevrolet Series 30 Model CG31303 or GMC Model TG31303; GVW 10,000 lbs; Wheelbase, 125".

**Alternator:** 130 amps.

**Axle, front:** Capacity 3,900 lbs. rating.

**Axle, rear:** Capacity 7,000 lbs. rating; 4.10 ratio.

**Battery:** 80 amps. hr., 12-volt.

**Brakes:** Hydraulic dual system. Front disc, 12.5" rotor with special metallic linings, 45.8 square inch front pad. Rear drum, 13" x 3.5", 162.35 square inch rear pad. Parking, cable to rear wheels.

**Bumper, front:** Chrome-plated.

**Engine:** 400 V8, 4-barrel carburetor.

**Fuel Tank:** 36-gallon, rear of frame.

**Gauges and Lights:** Speedometer, fuel, voltmeter, temperature and oil pressure.

**Grille:** Chrome.

**Heater, front:** Deluxe high-output with defroster.

**Horn:** Dual horns.

**Cab Interior:** Deluxe high-back driver's seat, (two-way adjustment), arm rest, sun visor, seat belt, front door trim panel, bright accents on instrument panel, insulated front wheelhouse and instrument panel, cigar lighter.

**Oil Filter:** Throw-away type.

**Shock Absorbers:** Heavy-duty, front and rear.

**Springs, front:** Heavy-duty, 1,950 lbs. rating, each.

**Springs, rear:** Heavy-duty, 3,500 lbs. rating, each.

**Stabilizer:** Front.

**Steering:** Power.

**Tires:** Single front and dual rear; tubeless, blackwall 8.75 x 16.5c polyester.

**Transmission:** Heavy-duty, 3-speed automatic.

**Wheels:** 16.5" x 6".

**Wheel Covers:** Standard.

**Windshield:** Tinted.

**Wipers:** 2-speed with dual jet washers.

NOTE: Wayne reserves the right to change specifications and prices without obligation. Features shown herein are not necessarily standard unless described as such.

Transette is a trademark of Wayne Corporation.

BADGER BODY & TRUCK EQUIP. CO.  
6336 Grover Street  
OMAHA, NEBRASKA 68108



## Wayne Corporation

An Indian Head Company

Wayne Transportation Division

Richmond, Indiana 47374

Telephone (317) 962-7511

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## Preface

This booklet is intended to be used as a guide to summarize selected Federal Legislation pertaining to mass transportation and to make the United States Department of Transportation's Urban Mass Transportation Administration more accessible to those entities which are eligible for Federally Funded capital assistance in mass transportation projects.

This booklet should not be interpreted as an official document but only as a guide. Complete details of the Federal Programs as described herein can be found in the following documents:

The Urban Mass Transportation Act of 1964 and Related Laws—as amended (Available from the United States Department of Transportation, Urban Mass Transportation Administration). *The Urban Mass Transportation Administration External Operating Manual* (Published by the United States Department of Transportation, Urban Mass Transportation Administration). *Federal Register* (Published by The National Archives of The United States).

## Introduction

Gasoline shortages and rising fuel prices have caused many people to take a good look at mass transportation for a car substitute. Consequently, mass transportation ridership has been on the increase, placing new and greater demands for additional equipment and a more specialized and expanded service.

In an effort to help reduce air pollution, street and highway congestion, and to conserve natural resources, the Federal Government through the United States Department of Transportation's Urban Mass Transportation Administration has made available funds for capital assistance to qualified municipalities and private non-profit organizations for the purchase of equipment to be used in specific mass transportation projects.

This booklet has been prepared to acquaint the reader with selected Federal Legislation that makes these funds available and, briefly, the requirements to receive them. Also included, for convenience and reference, is a brief description of Federal and State organizations and responsibilities, as well as the locations, telephone numbers and names of the regional Urban Mass Transportation Administration Representatives throughout the United States.

The basic Federal Legislation authorizing financial assistance for mass transportation is the Urban Mass Transportation Act of 1964 and related laws, as amended. Following is a summary of Section 3, Section 5 and Section 16 of the Act.

### **Section 3— Urban Mass Transportation Act of 1964—As Amended**

Section 3 of the Act authorizes financial assistance in the form of grants or loans, to States and local public bodies and agencies to assist in financing the acquisition, construction, reconstruction, and improvement of facilities and equipment for use in mass transportation service in urban areas. Eligible facilities and equipment may include land, buses and other rolling stock needed for an efficient and coordinated mass transportation system.

Applicants for Section 3 funding under the Urban Mass Transportation Act of 1964, as amended, should contact their regional representative of the Urban Mass Transportation Administration. A more detailed explanation of this program as well as the required procedures to apply for and receive Federal funding assistance can be obtained by acquiring the publications listed in the Preface of this booklet or by contacting an office of the Urban Mass Transportation Administration.

### **Section 5— Urban Mass Transportation Act of 1964—As Amended**

Section 5 of the Act provides financial assistance to public agencies for operating assistance as well as for capital expenditures in maintaining and improving mass transportation services. A formula is utilized for apportioning funds to be made available to each urbanized area with a population of 200,000 and over. These funds go directly to the urbanized area. Funds attributable to urbanized areas with a population of under 200,000 will be apportioned directly to the Governor of each State for reapportionment.

Applicants falling into either of the above mentioned categories should contact the Urban Mass Transportation Administration or the Governor's Office of their respective State for further information concerning their eligibility and the required procedures to obtain funding under this program.

### **Section 16— Urban Mass Transportation Act of 1964—As Amended**

Section 16 of the Act gives priority to transporta-

tion programs designed for the specific use of the elderly and handicapped.

Section 16(b)(1) makes funding available to States and local public bodies and agencies to assist them in providing transportation specifically for the elderly and handicapped. States and local public agencies requesting funding under Section 16(b)(1) should contact their Urban Mass Transportation Administration Regional Representative for more complete information and requirements.

Section 16(b)(2) makes financial assistance available to qualified private non-profit corporations and associations to purchase equipment and facilities to provide specialized transportation services for the elderly and handicapped, when such services are presently unavailable, insufficient, or inappropriate. The Federal Government has placed the responsibility for the administration of Section 16(b)(2) with a designated agency in each state. Private non-profit corporations or associations desiring further information or requesting funding under Section 16(b)(2) should contact their respective State agency designated by the Governor of their State to administer this program.

### **Federal Organization Responsible for Administering Federal Legislation Pertaining to Transportation**

The United States Department of Transportation (DOT) has the primary responsibility for administering federal programs related to transportation. Within the DOT there are six operating administrations:

- Urban Mass Transportation Administration (UMTA)
- Federal Highway Administration (FHWA)
- Federal Aviation Administration
- Federal Railroad Administration
- United States Coast Guard
- St. Lawrence Seaway Development Corporation

The Urban Mass Transportation Administration (UMTA) has the primary responsibility for administering federal programs related to mass transportation. UMTA is responsible for these various assistance programs:

- Grants for capital improvements
- Grants for operating assistance
- Grants for technical studies projects

Grants for research, development, and demonstration projects  
 Grants for service development projects  
 Grants for university research and training programs  
 Grants for managerial training programs

UMTA consists of several operating offices which are as follows:

- Office of the Administrator
- Office of Civil Rights
- Office of Administration
- Office of the Chief Counsel
- Office of Research and Development
- Office of Capital Assistance
- Office of Program Planning
- Office of Transit Planning

Office of Public Affairs  
 Congressional Liaison Officer

These operating offices of UMTA can be accessed by contacting:

The United States Department of Transportation  
 Urban Mass Transportation Administration  
 Nassif Building  
 400 7th Street, S. W.  
 Washington, D.C. 20591  
 Information (202) 426-4011

In addition to the UMTA operating offices in Washington, D.C., there is an extensive network of Field Offices throughout the United States. These UMTA Field Offices and Representatives and the addresses are as follows:

## Urban Mass Transportation Administration Regional Offices/Representatives

Region/State	Representatives/Address	Telephone No.
I-Conn., Maine, Mass., New Hamp., Rhode Island, and Vermont (BOSTON)	Lou Mraz, UMTA Representative c/o Transportation Systems Center Kendall Square Cambridge, Mass. 02142	(617) 494-2055
II-New York, New Jersey, Puerto Rico, and Virgin Islands (NEW YORK)	Ken Vought, UMTA Representative UMTA 26 Federal Plaza Suite 507 New York, New York 10007	(212) 264-8162
III-Del., Dist. of Columbia, Md., Penn., Virginia, and West Virginia (PHILADELPHIA)	Frank K. Gimmier, Regional Director UMTA Gateway Building Mezzanine 3535 Market Street, Suite M-220 Philadelphia, Pa. 19104	(215) 597-1084
IV-Ala., Flor., Georgia, Kent., Mississippi, N.C., S.C., Tenn. (ATLANTA)	Doug Campion, UMTA Representative UMTA 1720 Peachtree Road, N.W. Suite 501 Atlanta, Georgia 30309	(404) 526-3948
V-Illinois, Indiana, Minnesota, Mich., Ohio, and Wisc. (CHICAGO)	Tom Harvey, UMTA Representative UMTA 300 South Wacker Drive—Suite 700 Chicago, Illinois 60606	(312) 353-6005



VI—Arkansas, Louisiana, New Mexico, Okla., and Texas (FORT WORTH)	Glen Ford, UMTA Representative UMTA, Suite 9A32 819 Taylor Street Fort Worth, Texas 76102	(817) 334-3896
VII—Iowa, Kansas, Missouri, and Nebraska (KANSAS CITY)	Lee Waddleton, UMTA Representative UMTA 601 East 12th Street—Suite 633 Kansas City, Missouri 64106	(816) 374-5845
VIII—Colorado, Montana, North Dak., South Dak., Utah, and Wyoming (DENVER)	Len Lacour, UMTA Planner UMTA Prudential Plaza—Suite 1822 1050 17th Street Denver, Colorado 80202	(303) 837-3242
IX—Ariz., Calif., Hawaii, Nevada, and Guam (SAN FRANCISCO)	Stuart Eurman, UMTA Representative UMTA 450 Golden Gate Avenue Box 36125 San Francisco, Calif. 94102	(415) 556-2884
X—Alaska, Idaho, Oregon, and Washington (SEATTLE)	F. William Fort, UMTA Representative UMTA Suite 3106 Federal Building 915 Second Avenue Seattle, Washington 98174	(206) 442-4210

The Federal Highway Administration (FHWA) is also responsible for certain programs involving street and highway projects that promote and encourage mass transportation. Local offices of the FHWA should be contacted for further information.

UMTA and FHWA, jointly with other administrations and the Office of the Secretary of Transportation, are responsible for transportation planning and administration as well as other matters requiring intermodal consideration.

### **State Organizations Responsible for Administering Mass Transportation Programs**

Many States through their State Department of Transportation or State Department of Highways and through other operating agencies offer varying programs of assistance for mass transportation. These State agencies should be contacted through the Information or Public Affairs Offices of each individual state to determine what programs are available and what specific procedures are required for each program.

### **Equipment Specifications**

Many capital assistance programs utilizing Federal and/or State funds to purchase new equipment for mass transportation projects require that specifications be submitted to the administering and participating agency or agencies for approval.

It is hoped that the enclosed specifications of the Mercedes-Benz O 309 D Diesel Bus, as well as the preceding information concerning Federal Legislation and responsible agencies will be useful in assisting to some degree in the planning and implementation of transportation systems in communities across the United States.

# Bid Specifications

## Mercedes-Benz Diesel Bus Model 0 309D

### 1. Dimensions and Weights

Overall Length:	236.0"	Wheelbase:	137.8"
Overall Width:	83.4"	Turning radius:	20.0'
Overall Height with A/C	120.6"*	Curb weight:	7,960 lbs.
Overall Height without A/C	106.0"*	Gross vehicle weight:	11,000 lbs.
Interior Width:	74.0"	Entrance door width:	31.8" Top
Interior Height:	74.8"		19.5" Bottom
Interior length/driver		Exterior body panel thickness:	.035" / 20 Gauge
partition to rear passenger		Roof support thickness:	.059"
compartment:	159.0"		
Ground to floor height:	32.4"*		
Ground to first step:	15.1"*	*unloaded	

### 2. Mechanical Specifications

2.1 Engine: Engine is diesel powered, has 230 cu. in. displacement, 80 net B.H.P. SAE according to SAE J816b at 2800 RPM, 169.5 net ft. lbs. torque at 1900 RPM and is four stroke cycle, direct injection using a Bosch fuel injection pump. Routine service points are readily accessible from both inside and outside the bus.

2.2 Transmission: The transmission is a 4-speed Allison automatic transmission Type AT 540 with transmission oil cooler.

Transmission ratios:

- 1st gear: 3.45
- 2nd gear: 2.25
- 3rd gear: 1.41
- 4th gear: 1.00
- Reverse: 5.02

Fluid capacity approximately 15 qts.

On special order, a 5-speed manual, full synchromesh in all five forward gears is available.

2.3 Axles: The front axle is full width I-beam construction and has a capacity of 3,975 lbs. The rear axle is a straight type hypoid axle and has a capacity of 7,275 lbs. Both front and rear axles have leaf springs with overload springs on the rear, and anti-sway bars on both front and rear axles.

2.4 Cooling System: Radiator filler is readily accessible from outside of vehicle. Cooling system is installed so as to be adequately protected from damage caused by rough road conditions, road debris, etc. Cooling system capacity is 28.5 quarts approximately 7.1 gallons.

2.5 Exhaust System: It is leakproof and designed and constructed so as to minimize fire hazard under normal maintenance conditions. It is constructed of cor-

rosion resistant materials. Exhaust tailpipe is installed as high as possible from the ground. Tailpipe is adequately supported and is designed so that the exhaust will not discolor any part of the body.

- 2.6 Drive Shaft: It is installed and protected with guard straps at center bearing.
- 2.7 Differential: Gear ratio is designed for a maximum speed of not less than 60 MPH nor more than 65 MPH.
- 2.8 Service Brakes: The service brakes are 2-circuit hydraulic with air assist. The brakes are internal expanding drum type with a total brake drum area of 584 sq. in.
- The total effective brake lining area is 293 sq. in. The air assist operates at a maximum of 104 PSI, has a reservoir tank with regulator and a visible and audible warning device for low air pressure.
- 2.9 Parking Brake: The parking brake is actuated by steel cables to the rear wheel brakes.
- 2.10 Steering: Vehicle is equipped with recirculating-ball type power steering driven by semi-rotary pump. The power steering unit is an integral part of the steering gear box.
- 2.11 Fuel System: The fuel tank has a capacity of 21 gallons diesel fuel. The approximate driving range is 210—310 miles. The filler pipe is on the left side. The fuel tank meets MCSR requirements. Fuel consumption ranges up to 15 MPG.
- 2.12 Springs: The front and rear springs are of the multiple leaf type and the rear springs are equipped with overload springs. They have adequate capacity to support the weight of the vehicle and the designed payload.
- 2.13 Shock Absorbers: Shock absorbers are of the telescopic hydraulic type and are matched to the springing system.
- 2.14 Electrical System: The electrical system is 12-volt with a 24-volt starter motor. All electrical wiring and harness are properly installed in accordance with good manufacturing practices. Circuit breakers are used instead of fuses.
- 2.15 Battery: Two 88 ampere hour batteries are furnished. The battery compartment is large enough to accommodate two 100 ampere hour batteries. The batteries are installed under the driver's seat, and the battery compartment is sealed and vented to the outside.
- 2.16 Alternator: With air conditioning, the following alternators are furnished: a 120 ampere Motorola unit or 90 ampere and 65 ampere Bosch units. Without air conditioning, one 65 ampere Bosch alternator is furnished. The vehicle is equipped with a direct injection diesel engine, thus requiring less total amperage output. All systems including the air conditioning are powered directly from the main electrical system.

- 2.17 Instruments and Control: The following shall be supplied:
- Speedometer with odometer.
  - Pressure gauge to measure air pressure.
  - Warning light and buzzer to indicate low air pressure.
  - Indicator light instead of ammeter.
  - Warning gauge to indicate low oil pressure.
  - Turn signals and emergency flasher lights.
  - Headlight high beam indicator light.
  - All controls are within easy reach of the driver's position.
- 2.18 Wheels Single front and dual rear wheels, plus one spare wheel and tire is supplied. The wheels are interchangeable and have a diameter of 16".
- 2.19 Tires: Tires are 6.50 x 16 radial type with 10-ply rating.

### 3. Body and Accessory Specifications

- 3.1 Body Framing: The bus is constructed with a steel frame having U-shaped side rails and riveted tubular cross members. Cross members at extreme front and rear are bolted to facilitate repair.
- 3.2 Exterior Body Panels: The exterior body panels are fabricated using steel and have a thickness of .035"/20 gauge. Panels have a smooth finish.
- 3.3 Floor: The passenger compartment floor is constructed of waterproof and fire retardant plywood having a thickness of 5/8". The floor of the driver's compartment and entryway is steel.
- 3.4 Insulation: Sides and roof of air conditioned buses are insulated with fiberglass or rock wool. The insulation is fire resistant and 1.6" thick.
- 3.5 Wheel Housings and Stepwell: Wheel housings and stepwell are constructed of steel. They are of adequate thickness and are protected against corrosion with PVC undercoating.
- 3.6 Windows: The rear window and three main windows on each side are push-out type. Each push-out is identified with a decal and includes instructions for emergency operation. Each rear window left and right is of the sliding type. All glass is tinted.
- 3.7 Doors: Two front entrance doors are provided, one for the passengers and one for the driver. Both are a hinged sedan-type with a manual remote control actuator for the passenger door.

- 3.8 Bumpers: The front and rear bumpers are of substantial construction and are installed so as to adequately protect the vehicle. Bumpers extend beyond a projected vertical line of all body panels, lights and windshield wipers. Bumpers have a bright metal finish and fasten directly to the vehicle frame. Bumper steel thickness is: front .078" and rear .118".
- 3.9 Floor Covering: The standard floor covering is of the vinyl type with carpet as an option. All buses are equipped with ribbed rubber safety tread in the passenger entryway and aisle.
- 3.10 Interior Finish: The interior of the bus below the bottom window line is covered with hard surface Laminate, as is the interior ceiling. A padded vinyl side wall below the bottom window line is available as an option along with padded instrument panel, padded engine cover, and deluxe seats.
- 3.11 Undercoating: The underside of the bus body is sealed and coated with a plasticized undercoating material. Drain tube openings, and mechanical components are protected with a clear corrosion resistant material.
- 3.12 Seating: Individual passenger seats are provided. 16 or 19 passenger seats can be provided depending upon the amount of inside rear luggage space required. All seats face forward with single seats on the left of the aisle and double seats on the right of the aisle. Minimum knee space is 25" on the 19 passenger version, and 25.9" on the 16 passenger version. The aisle width between seat cushions is 17.7" and 14.4" between armrests on the deluxe seats. The seats are bolted through the floor to backing plates. Buses can be ordered without seats for subsequent installation of locally manufactured seats.
- 3.13 Driver's Seat: The driver's seat is of Daimler-Benz design and provides 8-way adjustment and includes driver safety belt.
- 3.14 Heating: Two heating systems are standard equipment, a water heat exchanger in the front producing approximately 22,000 BTU and a diesel fuel powered hot air heater in the rear producing approximately 12,000 BTU. The front hot water heat exchanger also serves as a windshield defroster and has a 2-speed fan.
- 3.15 Air Conditioning: An air conditioning system is provided having a capacity of 40,000 BTU. The compressor is a rotary-type driven by the main engine and the evaporator and condenser are mounted on the rear of the roof. Cool air is discharged through ceiling ducts, right and left, affixed to the interior ceiling.
- 3.16 Interior Lighting: Overhead lights are installed in each air conditioning duct to illuminate the aisle. Each row or bank of lights is individually controlled by the driver. There is also an overhead courtesy light for the driver, as well as a light in the passenger stepwell that is actuated when the passenger door is opened. Interior lights of the passenger compartment are 12 volt, 10 watts per bulb, a total of 12 bulbs are used with 6 lamps.

- 3.17 Exterior Lighting: All exterior lights comply with Federal and State requirements, as well as MCSR requirements. Headlights are single units. All buses are equipped with back-up lights, front and side reflectors and running lights.
- 3.18 Windshield Wipers and Washers: A two-speed electrically operated windshield wiper is provided with one motor operating both wipers. Windshield washer is standard equipment.
- 3.19 Horn: A single electric horn is provided.
- 3.20 Mirrors: Outside rear view mirrors are provided and they measure 5" wide and 9" high. The inside rear view mirror measures 2<sup>3</sup>/<sub>4</sub>" high and 8<sup>3</sup>/<sub>4</sub>" wide.
- 3.21 Sun Visor: A padded adjustable sun visor is provided for the driver.
- 3.22 Advertising Card Racks: Not available by factory.
- 3.23 Illuminated Destination Sign: Available as an option.
- 3.24 Passenger Signal System: A push-button passenger signal system is standard.
- 3.25 Parcel Rack: Overhead parcel racks are not available with air conditioning. They are, however, available as an option without air conditioning.
- 3.26 Emergency Equipment Box: Not available as a factory installation.
- 3.27 Stanchion and Driver's Partition: A stanchion is installed behind and to the right of the driver's seat with a horizontal bar. The stanchion and horizontal bar have a plastic finish.
- 3.28 Overhead Grab Rails: Not available as a factory installation. Can be provided by dealer.
- 3.29 Modesty Panel and Entrance Handrails: A modesty panel with an integral handrail is installed behind the entrance door. A vertical stanchion is an integral part of the modesty panel.
- 3.30 Farebox: Not available as a factory installation, but can be provided by dealer.
- 3.31 Tow Hook: One tow hook is installed at the center and below the bumper.
- 3.32 Mud Flaps: Mud flaps are provided behind each rear wheel.
- 3.33 Ground Strap: An anti-static ground strap is provided.
- 3.34 Painting and Lettering: Painting and lettering can be done by the dealer.

#### 4. Design, Workmanship and Warranty

- 4.1 Design: The bus is an attractive interior and exterior design suitable for a high quality service. The bus has excellent ride qualities and does not produce excessive lateral or vertical motion under normal driving conditions.
- 4.2 Workmanship: The bus is of high quality workmanship and finish and is of substantial and durable construction. Special care is taken to insure that welds are properly made and that all items and components are properly installed and securely attached.
- 4.3 Safety Standards: The manufacturer certifies that the vehicle complies with all applicable U.S. Department of Transportation FMVSS for motor buses applicable as of the date of manufacture, and complies with all MCSR requirements for motor buses operated in interstate commerce.
- 4.4 Noise Standards: The O 309D Bus with AT 540 Automatic Transmission complies to all applicable state and federal noise regulations.
- 4.5 Air Pollution Standards: The engine meets all applicable federal and state air pollution control requirements at the date of manufacture.
- 4.6 Warranty: Dealer warrants each new Mercedes-Benz commercial vehicle (truck or bus) sold by him and operated in U.S.A. or Canada to be free from defects in material and workmanship under normal use and service up to periods as specified here-after.

This warranty includes each part of any accessory or equipment thereon manufactured or supplied by Daimler-Benz AG., Mercedes-Benz of North America, Inc., or Mercedes-Benz of Canada Ltd., respectively except as hereunder provided.

A. *Entire Vehicle.* Dealer warrants vehicle up to a period of 12,000 miles or 12 months from the date of initial operation, whichever event shall first occur. During this period, all expenses for material and labor will be borne by the dealer except as otherwise limited.

B. *Power Train* (except engine). Beyond the warranty for the entire vehicle, dealer will absorb 50% of the cost incurred for labor and material for replacement of power train parts, except automatic transmission\*, up to a period of 50,000 miles or 12 months after the date of initial operation, whichever event shall first occur. This warranty is applicable to the following components of the power train: standard transmission, power take-off and transfer case including housing, and all internal parts thereof, driveshaft with intermediate bearings, rear axle housing, differential assembly, rear axle shafts, and wheel bearings.

\* See separate warranty for Allison Automatic Transmission Type AT 540 (on the following page.)



**Detroit Diesel Allison**  
 Division of General Motors Corporation  
 Indianapolis, Indiana 46206

# NEW PRODUCT WARRANTY PARTICIPATING OEM SALES

## WARRANTY ON NEW AT, MT & HT SERIES ALLISON AUTOMATIC TRANSMISSIONS USED IN ( \_\_\_\_\_ )

INSERT OEM NAME HERE

### ON-HIGHWAY VEHICLE APPLICATIONS

Detroit Diesel Allison (Detroit Diesel Allison Division, General Motors Corporation) warrants to the owner of each New AT, MT and HT Series Allison Transmission installed in a new ( \_\_\_\_\_ )

INSERT OEM NAME HERE

on-highway motor vehicle that it will repair any defective or malfunctioning part of the transmission in accordance with the following schedule:

WARRANTY LIMITATIONS AND ADJUSTMENT SCHEDULE			
Warranty Limitations (Whichever First Occurs)		Adjustment Charge To Be Paid By Owner	
Months	Transmission Miles	Parts	Labor
0 - 24	0 - 50,000	No Charge	No Charge
	50,001 - 100,000	No Charge	50% of Service Outlet's Normal Charge

The warranty period shall begin on the date the new ( \_\_\_\_\_ ) on-highway motor vehicle is delivered to the first retail purchaser or, if the vehicle is first placed in service as a demonstrator prior to sale at retail, on the date the vehicle is first placed in such service.

INSERT OEM NAME HERE

This warranty covers only malfunctions resulting from defects in material or workmanship.

This warranty does not cover:

- Malfunctions resulting from misuse, negligence, alterations, accident or lack of performance of normal maintenance services;
- Any transmission which shall have been repaired by other than an authorized Detroit Diesel Allison service outlet so as in any way, in the judgment of Detroit Diesel Allison, to affect adversely its performance and reliability;
- The replacement of maintenance items (such as filters, screens, transmission fluid) made in connection with normal maintenance services;
- Loss of time, inconvenience, loss of use of the vehicle or other consequential damages.

The owner is responsible for the performance of regular maintenance services as specified in the driver's handbook applicable to the transmission.

Repairs qualifying under this warranty will be performed by any Detroit Diesel Allison Distributor or *his specifically designated Service Dealer* within a reasonable time.

***This warranty is the only warranty applicable to the Allison Model AT, MT and HT Series Automatic Transmissions and is expressly in lieu of any other warranties, expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose. Detroit Diesel Allison neither assumes nor authorizes any other person to assume for it any other liability in connection with such transmissions.***



C. *Engine.* Beyond the warranty for the entire vehicle, dealer will absorb warranty cost for replacement of engine parts under the following provisions up to the limits specified, whichever event shall first occur:

- a. 100% of the costs for material and labor up to 50,000 miles or 24 months.
- b. 100% of material and 50% of labor up to 100,000 miles or 24 months.

This policy is applicable for the following components of the engine: cylinder block, cylinder head, all internal engine parts, fuel injection pump, water pump and intake manifold.

Dealer's obligation is limited to the replacement or repair at his option of such parts which are acknowledged by him to be defective. In case of defective assemblies, factory rebuilt units can be used in exchange instead of their repair. The replaced defective parts or assemblies shall become the property of the dealer. Warranty repairs performed in the dealer's workshop in accordance with the terms of the warranty set forth herein are free of charge.

The vehicle must be maintained and serviced according to the prescribed maintenance and service schedule as outlined in the Owner's Service Booklet. When requesting service or repair work under warranty, receipted bills or other evidence that the required maintenance and service has been performed at the prescribed mileages, must be presented to the authorized Mercedes-Benz Service Station.

Warranty repairs do not constitute an extension of the original warranty period for the vehicle or a part thereof.

No payment or other compensation will be made for incidental expenses, including but not limited to, towing, telephone, transportation, lodging or indirect or consequential damage, including, but not limited to, damage or injury to person or property or loss of revenue which might be paid, incurred, or sustained by reason of the failure of any part or assembly which may be replaced in accordance with the terms of this warranty. Warranty consideration can only be given if the deficiency is brought to the attention of an authorized Mercedes-Benz Service Station immediately after discovery.

The warranty shall not apply to: (1) Tires and tubes, the manufacturers of which have service representatives in the U.S.A. or Canada, respectively. These parts are covered by separate warranties of their respective manufacturers. (2) Damages due to accidents, misuse, negligence, improper operation, storage or transport, improper or insufficient maintenance services. (3) Any vehicle which has not been maintained and serviced in accordance with the Mercedes-Benz service schedule (see Service Booklet) and where the owner is unable to

present, to an authorized Mercedes-Benz Service Station, bills or other evidence of his compliance to such servicing requirements. (4) Any vehicle which has been repaired by use of other than original Mercedes-Benz spare parts and accessories as well as major assemblies and exchange units, which in the sole judgment of the dealer, adversely affects its performance and reliability. (5) Any vehicle altered or repaired in a manner which in the sole judgment of the dealer adversely affects its performance and reliability. (6) Any vehicle on which the speedometer has been altered. (7) Normal maintenance services, including but not limited to adjustments on engine, injection pump, transmissions, brakes, wheel balance and alignment, clutch linkages, as well as all adjustment, diagnosis, and test time. (8) Parts which are subject to consumption during their normal service life and customarily replaced during normal maintenance service, including, but not limited to air, oil and fuel filters, light bulbs, brake and clutch linings, etc. (9) Defects which are caused by exceeding the maximum permissible loading weights for the vehicle for any of its axles. (10) Parts made out of cloth or leather (upholstery, etc.) wood, rubber, synthetics, paint or chrome which have been affected by exposure to the elements or chemical influence, including, but not limited to, road salts, industrial fall-out or the use of improper cleaners, polishes, and/or waxes. (11) Glass breakage or scratches unless positive physical proof of a manufacturing responsibility can be established.

This warranty is available only in the continental United States, Hawaii, Puerto Rico and the U.S. Virgin Islands and Canada. In all other countries, defective parts will be repaired and replaced free of charge only in accordance with the terms and limitations of the warranty for new Mercedes-Benz vehicles in effect at the time in such countries.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES AND REPRESENTATIONS, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO, IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURCHASE, AND OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF THE DEALER, MERCEDES-BENZ OF NORTH AMERICA, INC., MERCEDES-BENZ OF CANADA, LTD. AND DAIMLER-BENZ AG., RESPECTIVELY. DEALER NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY OTHER LIABILITY IN CONNECTION WITH SUCH VEHICLE.

The manufacturer has reserved the right to make any changes in design or to make additions to or upon its product without incurring any obligations to install the same on motor vehicles previously built.

**5. Miscellaneous**

**5.1 Manuals:**

The following materials are available:

Workshop Manuals

Electrical Wiring Diagrams

Maintenance Schedules

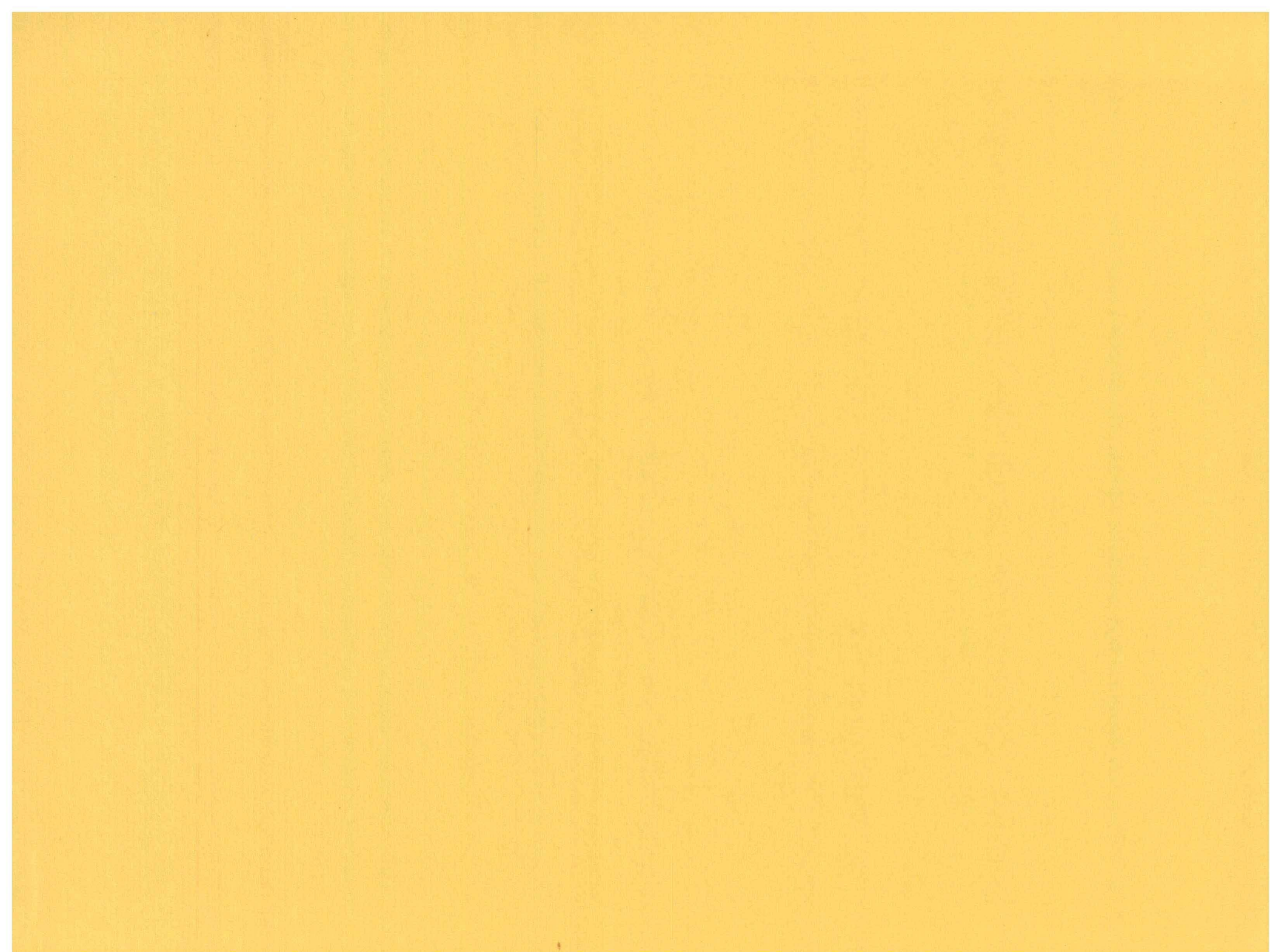
Micro-Fiche Parts System

Operating Manuals

**5.2 Parts:**

The Mercedes-Benz authorized Bus Dealers inventory a supply of bus spare parts that would be needed immediately for general maintenance. Mercedes-Benz of North America, Inc. stocks bus parts in central parts depots on the east and west coasts and in the mid-west.

**Mercedes-Benz of North America, Inc.  
One Mercedes Drive  
Montvale, New Jersey 07645**



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