

**ATTACHMENT V
PRE-SITE VISIT, FINANCIAL MANAGEMENT & MINIMUM
MAINTENANCE CHECKLIST**

Attachment V - Pre-site Visit, Financial Management and Minimum Maintenance Checklist

PRE-SITE VISIT CHECKLIST

Entity: _____ **Contact:** _____

Contract/Grant Number: _____

Monitoring Visit Schedule:

Date:

Time:

Place:

Confirmation Letter:

Date of Contract:

Contract Period:

Special Contract Conditions:

Correspondence Reviewed:

Requests for Reimbursements Reviewed:

Financial Status Reports Reviewed:

Monthly Progress Reports and Summary Reports Reviewed:

Performance Standards Reviewed:

Areas To Be Examined (Note which monitoring checklists should be used):

Comments: _____

Program Staff Signature _____ **Date:** _____

Administrator Signature _____ **Date:** _____

FINANCIAL MANAGEMENT SYSTEM COMPLIANCE CHECKLIST

Purpose: The objective of this checklist is ensure that a comprehensive monitoring visit is conducted in a manner that will allow for a review of compliance issues and increase the probability that problem areas will detected and documented.

Applicability: This checklist is intended to be used in the routine monitoring process for all General Public Transit contractors. It is intended to especially enhance our ability to identify and deal with high risk contractors. Unless otherwise instructed by the Manager, all questions must be answered during each monitoring visit.

Description: The checklist is generally organized by broad areas of concern. It is intended that when areas calling for extensive explanations are identified, information will be provided on a separate page along with copies of any documentation that the monitor considers necessary to support the explanation provided. This information is to be referenced within the body of the checklist and attached to the checklist.

The questions in this checklist have been designed to indicate "Yes" or "N/A" answers as favorable responses. All unfavorable responses must be fully explained. It should be noted that unfavorable answers identify situations that could be undesirable, but are not necessarily unjustifiable or unacceptable.

This document is intended as a guide for the areas covered. The monitor must also use professional judgement.

"RED FLAGS"

Certain items should raise "red flags" for the monitor if they appear in documentation examined.

Listed are some of the items to closely examine in the review of the financial management system:

1. Use of award funds to pay penalties or fines.
2. Costs not supported by proper documentation.
3. Lack of prior approval for items such as capital equipment, buildings, and consultants.
4. Costs incurred outside the award period.
5. No evidence of competitive bidding when required by regulation or contract.
6. Bank accounts not reconciled.
7. Required reports not filed or not filed on time.
8. Costs allocated to the project budget that really benefited another program or project.
9. No procedures to monitor subcontractor agreements.
10. Excessive charges for rental of expensive automobiles, hotel suites, other than coach class airline tickets, etc.
11. Unorganized files (unorganized files cause heightened concern about the status of record-keeping).
12. Transferring costs from one contract/program to another, particularly when the journal entry transferring those costs is not done within a reasonable period of time after the costs are incurred.

FINANCIAL MANAGEMENT MONITORING CHECKLIST**CONTRACTOR****CONTRACT #****RPT #** _____**FISCAL ADMINISTRATION**

1. Does the organization have a complete copy (including all attachments) of the award agreement on file? If no, cite missing items below. Yes No N/A
If no, explain: _____

2. Does the organization have an administrative manual?
 Yes No N/A
If no, explain _____

3. Does the administrative manual address the topics listed below? (Check all appropriate):
 - Budgetary process
 - Organizational structure
 - Time and attendance policies
 - Travel policies
 - Administrative procedures
 - Petty cash
 - Telephone policies
 - Employee benefits
 - Employee termination
 - Holidays and office hours

4. Does the organization have copies of previous audit reports on file?
 Yes No N/A
If no, explain _____

5. Have previous audit reports been adequately resolved?
 Yes No N/A
If no, explain _____

6. Have vendor files been established? Yes No N/A
If no, explain _____

7. Are all rental or lease charges in accordance with the budget?
 Yes No N/A
If no, explain _____

8. Are all rental or lease charges properly documented? Yes No N/A
If no, explain _____

9. Are there procedures in place to safeguard the organization's financial records?
 Yes No N/A
If no, explain _____

ACCOUNTING SYSTEM

1. Are copies of all regulations, laws, and special conditions applicable to the contract on file?
 Yes No N/A

2. Are there written accounting procedures (i.e., and accounting manual)?
 Yes No N/A

3. Are those procedures being followed by the organization?
 Yes No N/A
If no, explain _____

4. Does the accounting manual address the topics listed below? (Check all that apply)

- Fiscal duties of staff
- Job descriptions
- Cash depositories
- Accounts payable
- Cash receipts
- Cash disbursements
- Timesheet and labor distribution
- Payroll
- Petty Cash
- Purchasing requirements
- Pension
- Accounting forms

5. Does the grantee maintain the records listed below? (Check all that apply)

- a. Cash disbursement journal
- b. Cash receipts journal
- c. General journal
- d. General ledger
- e. Payroll register/journal
- f. Equipment ledger

6. Are entries to the books of accounts supported by clear explanations and back-up documentation? Yes No N/A
If no, explain _____
7. Are the ledger books posted up to date? Yes No N/A
If no, explain _____
8. Are the ledger books kept in ink for permanence or are computer-maintained accounting records available in hard copy and retrievable from disk storage?
 Yes No N/A
If no, explain _____
9. Are trial balances prepared, balanced, and reviewed? Yes No N/A
If no, explain _____

INTERNAL CONTROL

1. Have internal control procedures been established? Yes No N/A
If no, explain _____
2. Does the grantee have written standard operating procedures for financial management? Yes No N/A
If no, explain: _____
3. Have grantee representatives responsible for cash and other significant assets been bonded? Yes No N/A
If Yes, list below:

Name	Bonding Amount	Expiration Date
------	----------------	-----------------

PAYROLL

1. Does the grantee have written payroll procedures? Yes No N/A
If no, explain _____
2. Are procedures regarding payroll being followed? Yes No N/A
If no, explain _____
3. Are there systems adequate to document the following items?
 Hours worked
 Vacation hours accrued
 Sick leave accrued
 Vacation used
 Sick leave used

4. Are all Federal and State withholding taxes paid on a timely basis?
 Yes No N/A
 If no, explain _____

5. Are time records maintained to support all time for which an employee is paid?
 Yes No N/A
 If no, explain _____

6. Are all time records signed in ink by employees? Yes No N/A
 If no, explain _____

7. Are all time records approved by Supervisors? Yes No N/A
 If no, explain _____

8. Do authorized hourly rates agree with payroll rates? Yes No N/A
 If no, explain _____

FRINGE BENEFITS

1. Are fringe benefits being allocated according to the cost allocation plan or approved budget?
 Yes No N/A
 If no, explain _____

2. Is the grantee charging only those fringe benefits that are consistent with organizational policies and procedures? Yes No N/A
 If no, explain _____

3. Are all employees covered on health, life, and workers' compensation insurance policies during the appropriate time frame, with coverage discontinued when employment is terminated?
 Yes No N/A
 If no, explain _____

CASH MANAGEMENT

1. Are cash management procedures in place and being followed?
 Yes No N/A
 If no, explain _____

2. Is the grantee's cash management system adequate to ensure proper receipt and depositing of funds? Yes No N/A
 If no, explain _____

3. Are systems in place to minimize excessive cash on hand? Yes No N/A

If no, explain

4. Are voided checks marked in a manner that prevents reuse? Yes No N/A
If no, explain _____

5. Are all bank statements reconciled promptly each month? Yes No N/A
If no, explain

6. Are the monthly bank reconciliations prepared by an employee who is not responsible for handling or receiving cash receipts or disbursements? Yes No N/A
If no, explain _____

7. Are bank reconciliations reviewed and approved? Yes No N/A
If so, by whom?

If no, explain _____

CASH RECEIPTS

1. Are the procedures regarding cash receipts being followed? Yes No N/A
If no, explain

2. Are receipts deposited daily and intact? Yes No N/A
If no, explain _____

3. Is supporting documentation maintained for all cash receipts? Yes No N/A
If no, explain

CASH DISBURSEMENTS

1. Are procedures regarding the disbursement of funds being followed?
 Yes No N/A
If no, explain

2. Are the following items verified before a check is released?
 Invoice, subcontract, obligating document
 Agreement of voucher(s) amount with check amount
 Approval signatures
 Signature and date filled in on check.

3. Are all checks preprinted and pre-numbered? Yes No N/A
If no, explain _____

4. Are there procedures to prevent the writing of checks payable to "cash"?
 Yes No N/A
If no, explain _____

5. Are there procedures to prevent checks from being signed in advance?
 Yes No N/A
 If no, explain _____
6. Are all invoices, receiving reports, receipts, etc., pertaining to disbursement kept on file?
 Yes No N/A
 If no, explain _____
7. Are all invoices canceled with check number and date paid? Yes No N/A
 If no, explain _____
8. Is the check-signing authority restricted to executives who do not have responsibility for maintaining accounting records? Yes No N/A
 If no, explain _____
9. Are checks voided if they are outstanding for 90 days or longer?
 Yes No N/A
 If no, explain _____

PETTY CASH

1. Are the procedures regarding petty cash being followed? Yes No N/A
 If no, explain _____
2. Are disbursements documented by receipts? Yes No N/A
 If no, explain _____
3. Is the petty cash reconciled frequently? Yes No N/A
 If no, explain _____

TRAVEL

1. Are the procedures regarding travel being followed? Yes No N/A
 If no, explain _____
2. Are travel policies updated to keep current? Yes No N/A
 If no, explain _____
3. If the contractor pays travel advances to employees, are they charged to a receivable account and reconciled when the travel is complete? Yes No N/A
 If no, explain _____
4. Do the travel advance amounts appear reasonable? Yes No N/A
 If no, explain _____
5. Are travel expense reports supported by receipts and other required documentation?
 Yes No N/A
 If no, explain _____

FINANCIAL MANAGEMENT

1. Are periodic financial reports used as management tools, i.e., are budgeted amounts compared to actual activities and the reason for significant variances or required actions document?
 Yes No N/A
If no, explain see concerns

2. Does management use those reports? Yes No N/A
If no, explain see concerns

3. Verify on a sample basis that the information recorded in the disbursement, payroll and cash receipts journal can be traced to the general ledger?
 Yes No N/A
If no, explain see concerns

4. Trace a sample month from the general ledger to the Requests for Reimbursement and verify that this information can be reconciled.
 Yes No N/A
If no, explain _____

5. Were there any Reimbursement Requests outside the effective contract date?
 Yes No N/A
If no, explain _____

6. Does the contractor maintain the disbursement journal in accordance with contractual line item budget? Yes No N/A
If no, explain _____

7. Determine by reviewing the bank statements if the grant funds are being deposited in a interest bearing account? If yes, have provisions been made for the return of this interest income? Please document those provisions.
 Yes No N/A
If no, explain _____

SOURCE AND APPLICATION OF FUNDS

1. Does the budget identify all expenditures for the grant program?
 Yes No N/A
If no, explain _____

2. Is documentation (timesheets, travel logs, travel vouchers, invoices for goods, etc.) maintained to support expenditures? Yes No N/A
If no, explain _____

3. Do the records identify matching funds received by amount and source?
 Yes No N/A
If no, explain _____

4. Is documentation maintained to support expenditures of matching funds?
 Yes No N/A
 If no, explain _____
5. Are all other funds (matching, etc.) expended at the proportionate ratio required by the contract?
 Yes No N/A
 If no, explain _____
6. List in-kind contributions by amount(s) and type(s):

7. Are all in-kind contributions documented? Yes No N/A
 If no, explain _____
8. Are cash contributions properly recorded as to source, type and date?
 Yes No N/A
 If no, explain _____
9. Is documentation maintained to support cash contributions? Yes No N/A
 If no, explain _____

BUDGET VS. ACTUAL EXPENDITURES

1. Are interprogram transfers occurring? Yes No N/A
 If no, explain _____
2. Are all expenditures within the approved budget? Yes No N/A
 If no, explain _____
3. Are intrabudget transfers occurring? Yes No N/A
 If yes, explain _____
4. Has prior approval been given for these transfers? Yes No N/A
 If no, explain _____
5. Are all costs charged to the correct budget category? Yes No N/A
 If no, explain _____

PROPERTY PROCUREMENT AND INVENTORY

1. Has all equipment specified in the budget been purchased?
 Yes No N/A
 If no, explain _____

2. Is property purchased with the grant funds being used only for project activities?
 Yes No N/A
 If no, explain _____

3. Are adequate records maintained for leased and purchased non-expendable property?
 Yes No N/A
 If no, explain _____

4. Has an inventory system been established? Yes No N/A
 If no, explain _____

5. Review a sample of purchases to determine if they have been placed on inventory.
 Yes No N/A
 If no, explain _____

6. Verify, on a sample basis, that the grantee can document that proper purchase procedures have been followed:
 a. Proper advertisement
 b. Proper bid specifications
 c. Lowest bid been taken
 d. Documentation for sole source purchases
 (List each instance of this type of purchase)

7. Do the purchasing procedures comply with state regulations and contract requirements?
 Yes No N/A
 If no, explain _____

8. Is an inventory conducted periodically to account for all property?
 Yes No N/A
 If no, explain _____

9. Are purchase orders and/or requisitions numbered and recorded sequentially?
 Yes No N/A
 If no, explain _____

10. Are invoices processed in a timely manner to ensure prompt payment and/or to avoid penalties and interest? Yes No N/A
 If no, explain _____

INDIRECT COST

1. Does the grantee have a cost allocation plan or an indirect cost plan?
 Yes No N/A
 If no, explain _____

2. Has the plan received federal approval? Yes No N/A
 If yes, date of approval _____
 If no, explain _____
3. Have procedures been established to ensure that costs are not being treated as both direct and indirect costs? Yes No N/A
 If no, explain _____
4. Is the approved cost allocation plan being followed? Yes No N/A
 If no, explain _____
5. Does the organization have timesheets to support the allocation of staff time?
 Yes No N/A
 If no, explain _____

PROGRAM INCOME

1. Does the grantee have program income? Yes No N/A
 If no, explain _____
2. Do the grantee's records reflect income/interest earned by program? (Prepare a schedule to document program income.) Yes No N/A
 If no, explain _____
3. List program income by projected source and amount.
- | | |
|---------|---------|
| Source: | Amount: |
|---------|---------|
4. List program income received to date by source and amount.
- | | |
|---------|---------|
| Source: | Amount: |
|---------|---------|
5. Is the rate of program income consistent with award/subcontract documents?
 Yes No N/A
 If no, explain _____
6. Are there any special provisions or restrictions placed on program income?
 Yes No N/A
 If no, explain _____

Comments/Recommendations

Contractor's comments, concerns or recommendations:

MDOT Monitor

Date

Reviewed By

Date

MDOT Public Transit Division

MINIMUM MAINTENANCE PROGRAM

FOR SECTION 5311 AND SECTION 5310 CONTRACTORS

Preface

The MDOT recognizes that maintenance of transit capital equipment is very important. Because of the serious limitations on the availability of capital acquisition funds, vehicle maintenance is a particular concern. Federal regulations and FTA program guidance require that all capital equipment and facilities acquired with federal assistance must be maintained in acceptable operating condition, e.g. safe, reliable and in efficient operating condition. To adequately comply with these general requirements, every recipient of capital assistance must have a documented maintenance program, including a written maintenance plan. The maintenance plan should identify the goals and objectives of the organization's maintenance program, state the maintenance policy, indicate minimum maintenance requirements, contain schedules, identify the approval and/or authorization processes and illustrate the minimum record-keeping system. When developing the maintenance program for FTA funded equipment, each of the MDOT's sub-recipient organizations should consider its own operating and budget constraints as well as essential maintenance requirements. Steps must be taken to insure that neither the safety of employees, passengers or the general public will be jeopardized.

Purpose

This section contains information that was developed to assist the staff of small transit agencies and organizations that provides ancillary transportation services in rural areas to better manage the vehicle maintenance function. Better management of this vital function will reduce future capital investments, contain long term operating costs and increase the useful life of project vehicles. The information presented is intended to be general guidance for use by all Section 5311, Section 5310 and 5309 sub-recipient contractors. The purpose of this information is two-fold. First and most importantly, it is designed to provide minimum maintenance standards that all contractors will be expected to comply with. Secondly, it is intended to improve the effectiveness and efficiency of the maintenance program of local 5310 and 5311 contractors by improving the reliability of fleet vehicles and strengthening the maintenance management functions (e.g. scheduling, inventory, and record keeping).

The information and forms included on the following pages are to be used by contractors as guides for developing a practical maintenance program. All contractors must develop a written maintenance plan. To implement this plan they must monitor and maintain a maintenance program that helps to ensure:

- that safe and dependable vehicles are available,
- vehicles are systematically replaced,
- adequate funds are budgeted to support realistic maintenance and repair activities, and
- repair and replacement parts are obtained in the most cost-efficient manner

The MDOT recognizes that smaller organizations may have extremely limited resources and that operations staff may be forced to divide their time among several functions. That is why the Public Transit Division (PTD) strongly emphasizes the coordination of maintenance resources and that contractors take advantage of warranty programs to the fullest extent possible. In addition, planning is essential if funds that are available for vehicle replacement, component rebuilds/overhauls and vehicle rehabilitation are to be used to the fullest extent practical. We can not stress enough that the ultimate responsibility for maintenance is with the sub-recipient contractor.

For purposes of this guidance and ease of reference, the general minimum standards are presented in bold underlined type. Related requirements are shown in bold type as a part of the discussion of each standard.

ELEMENTS OF THE MAINTENANCE PROGRAM

All Section 5311 and 5310 contractors must develop and maintain a written maintenance plan.

It is not the desire of the PTD to make the maintenance program an administrative burden. However, a systematized process must be implemented by all sub-recipient contractors.

The overall quality of your local maintenance program has customer service and cost implications which are significant in the short term and may be substantial in the long run. To be effective, all maintenance programs must address four core areas. These are *staffing*, *preventive maintenance*, *repair* and *vehicle replacement*. Within these four areas the following factors must be included:

1. Centralized supervision;
2. Regular inspections by drivers and mechanics;
3. Regular schedules for maintenance and repairs; and
4. Systematic record keeping.

STAFFING AND ORGANIZATION

Each Section 5311 and 5310 contractor must have a staff person that has maintenance and repair oversight responsibilities. The Public Transit Division recognizes that few Section 5311 or 5310 contractors have the benefit of a dedicated maintenance person. However, to have an effective maintenance program all contractors **must** formally identify someone who is assigned the following responsibilities:

1. Approve/authorize all maintenance and repair work;
2. Maintain and update repair and maintenance policies;
3. Periodically review routine maintenance/repair records; and,
4. Advise project management concerning budget and vehicle replacement needs.

It does not matter whether the project has only one vehicle or a fleet, nor whether maintenance is an internal or contracted function. Effective maintenance requires someone who reviews periodic reports/checklists, arranges schedules and makes decisions that ensure that safe, dependable vehicles are available for service based on realistic resource allocation and investments.

PREVENTIVE MAINTENANCE

A preventive maintenance program shall be established to cover all vehicles that are included in the project's MDOT authorized inventory. The PM program shall be designed to comply with the original equipment manufacturers' warranties and recommendations, the minimum requirements of this guidance and recognized good fleet management practices as appropriate.

Preventive maintenance (PM) is the cornerstone of any maintenance system. A good preventive maintenance program should be designed to maximize the efficient use of resources, to ensure the highest level of quality possible for the service provided to the riding public, and to protect the significant public investment in equipment. The overall quality of the preventive maintenance program may possibly be determined by measures such as: frequency of vehicles being out of service, miles between road-calls, repair cost per mile and frequency of standard component failures.

It is the goal of the preventive maintenance activities to ensure that vehicles operate at their best performance level, are safe to operate and can remain in revenue service at least through their minimum useful life. The PTD strongly recommends that each contractor allocate adequate resources necessary to implement and monitor a good set of fundamental preventive maintenance checklists and schedules. The PTD strongly discourages projects from relying on the reactive approach that is commonly referred to as crisis or demand maintenance. This approach usually involves following minimum lubrication schedules only and all other maintenance and repairs are done only when the vehicle is forced out of service because of component failures. Frequently this approach results in minimal repairs or replacement to get the vehicle back into service as quickly as possible. No overall assessment or comprehensive servicing is done.

The basis for the PM system policies and procedures should be the manufacturers' standard minimum requirements, including all warranties. For the PM activities to be effective they must be designed around the manufacturer's recommendations for the particular type of vehicle. With these recommendations in mind the PM function must include a series of regular scheduled inspections and services or adjustments to the vehicle (or components) that are done based on pre-determined miles- or hours-operated intervals. To be truly effective these intervals must take into account the type of vehicles (e.g., diesel versus gasoline engine), the varying operating conditions (e.g., paved roads versus dusty back roads) and the impact of particular materials/supplies (e.g., use of synthetic oil may extend the service intervals). Preventive maintenance may seem more expensive in the short term but will frequently result in lower long term cost when major component replacements and vehicle useful life costs are considered.

It is the PTD's position that along with daily vehicle inspections, consistent oil change intervals form the acceptable baseline for the core activities of effective preventive maintenance.

To effectively monitor the overall maintenance program, including preventive maintenance activities, the project staff must have records of all work needed and done on the vehicles. These must be continuous records that are current, easy to read and readily available for review by persons with maintenance responsibilities. The PTD has provided each project with a sample Vehicle Master Record as the major tool for tracking the maintenance repair activities. **Use of this form or an approved modified version is required for all 5310 and 5311 projects.**

GENERAL REPAIRS

The project shall routinely make repairs that are identified through regular inspections, driver observations or vehicle breakdowns within a reasonable amount of time. Repairs must be authorized by the staff person who is designated with maintenance oversight responsibilities. Major repair decisions such as engine or transmission replacements should take into account the age, mileage, general overall condition of the vehicle and the availability of other alternatives.

Timely and complete repairs are essential to a successful maintenance program. A number of events can initiate repairs. These include but are not limited to the following:

1. Defects reported by the driver.
2. Response to a road call.
3. Response to a defect found during the preventive maintenance inspection.
4. Response to a defect found while providing routine servicing of the vehicle such as a major oil leak.

PTD recognizes that management of the vehicle repair activities will vary by contractor and depends to some extent upon whether the project has in-house resources or must rely on external contractors. In either circumstance, repairs must be monitored and recorded in a systematic way. Once it is determined that a vehicle needs repairs, the actual mechanical work must be approved, scheduled, performed, and documented. It is the PTD's position that the most effective method to authorize, record and track repair work is by using work orders. A sample work order form is included in this guidance. **Use of this form or a modified version is required by all Section 5310 and 5311 projects.**

When a driver reports a defect, the driver daily inspection checklist should be attached to the work order issued for the repair. After the repairs have been made, the work order and checklist or a written supervisor defect report (this can be a brief note to the file) should be filed together in the individual vehicle file and entered on the Master Vehicle Record. Work orders should not be allowed to go unfilled for more than a week.

While generally a work order is not required for minor defects which do not require the use of parts or take less than 15 minutes to repair, it is nevertheless recommended that recording minor and major repairs is the standard operating procedure. Work orders should only be issued by the person with maintenance oversight responsibilities.

WARRANTY MANAGEMENT

All Section 5311 and 5310 contractors are required to maintain warranty files and make use of warranties for maintenance and/or repairs as prescribed in the documents provided during the inspection and vehicle delivery process.

All vehicles that are purchased by the MDOT come with warranty information for the vehicle and various components. Generally these warranties include some combination of mileage and time. They may also exclude certain consumable items such as batteries, fluids and brake pads. Most warranty repairs should be done through local dealerships that represent the chassis manufacturer. **It is the project's responsibility to become familiar with all warranties provided with each vehicle.** The maintenance oversight staff person should be sure to understand who is responsible for each warranty. **If the authorized warranty representative(s) can not solve the problem, the vendor that delivered the vehicle, the manufacturer's representative and then PTD staff should be contacted in the order listed.**

Because a warranty represents an assurance by a manufacturer that the product will perform properly for a specified period or under specific conditions, it can be used to offset the cost of maintenance/repair. Realistically, because of the nature of the services that are provided by many local projects, the warranty periods sometimes offer a very brief window of opportunity for taking advantage of any of the following:

- Replacing defective parts
- Repairing the defective parts
- Possible reimbursement of cost to have defect repaired

This is why it is extremely important to report problems promptly and use all warranty options within the mileage or time periods. Contractors should keep in mind that a history of problems is necessary to any possibility of getting warranty relief, even after the original mileage or time periods have expired.

MAINTENANCE OF ACCESSIBLE FEATURES

All Section 5310 and 5311 sub-recipients must maintain accessible equipment in accordance with the requirements of the ADA.

Provisions in the Americans with Disabilities Act (ADA) requires that all public and private entities that are providing transportation services must maintain equipment and related components in operating condition that ensure that the equipment is accessible and usable by persons with disabilities. Section 37.161 of the ADA states that it is not sufficient to provide features such as lifts, if the equipment is not maintained in working condition. There is also a requirement that repairs must be made to inoperative equipment promptly. Consequently it is the position of the MDOT that all contractors that operate accessible equipment must include regular and frequent maintenance checks of accessible features such as lifts, securement devices and communications equipment to prevent breakdowns where possible, minimize down time and ensure that they are safely operating.

RECORD KEEPING

All 5311 and 5310 contractors are required to develop and maintain maintenance/repair records for each vehicle included in the MDOT authorized inventory. At a minimum these records must be based on the suggested forms/formats included with this guidance and must be periodically reviewed by the project staff assigned the maintenance oversight responsibilities.

Assigned PTD staff will periodically review maintenance records to determine if the goals of the maintenance plan are being accomplished and whether the contractor is complying with the minimum requirements contained in this guidance.

Because the PTD supports the position that planning, communication, supervision and record keeping are the four essential elements of successful maintenance, the following forms have been developed as core record keeping/reporting components for the successful maintenance program. These forms are based on generally accepted industry guidance. It is important to remember that these forms are intended to provide sufficient details to manage the project's maintenance program and track maintenance/repair problems. They are not intended to add to the administrative burden. Therefore, some modification of the format of the forms may be expected. Actual performance of the checks and component services must nevertheless be ensured.

The forms necessary for minimum record keeping are listed below:

- 1. Vehicle Daily Preventive Maintenance Inspection Checklist**
- 2. Annual Maintenance Checklist**
- 3. Vehicle Master Record**
- 4. Mileage Maintenance Schedules (4-6k; 8-12k;20-24k)**
- 5. Work Orders**
- 6. Lift Maintenance Checklist**

A vehicle history should be kept on each vehicle. Dedicated individual vehicle history files should be kept as long as the project owns the vehicle. All of the forms listed above along with related invoices resulting from maintenance and repairs should be kept in this file. All maintenance and repair records/form must contain the VIN and current mileage for the affected vehicle.

It is also recommended that each project should develop a written abnormal fuel and oil/fluid consumption policy. This policy should be used to make maintenance and repair decisions. For example, if a vehicle uses more than four quarts of oil or two quarts of transmission oil in a specified period, there should be definite actions taken to have the vehicle inspected and serviced as appropriate.

Public Transit Division

Maintenance Program Forms

The materials contained in this attachment are intended to be used as guides for a practical preventive maintenance program. All 5311 and 5310 contractors as well as recipients of capital awards must establish, monitor and maintain a practical maintenance repair program to help insure that safe, dependable vehicles are available.

The enclosed forms and schedules may be modified to better meet the needs of local projects. It is required that a minimum preventive maintenance program include the schedules and inspection forms provided. Failure to adequately maintain project vehicles may adversely affect request(s) for additional or replacement vehicles.

MASTER VEHICLE RECORD

This is the most important form used in maintenance management. All work performed, repair types, usage information, cost, etc. can be recorded on this form and it becomes a convenient way of tracking the complete repair history for a given vehicle.

A folder should be kept on each vehicle to hold all records, forms, receipts, and other important papers pertaining to each vehicle. The first form in the folder should be the Master Vehicle Record.

The Master Vehicle Record is now part of the ATDS software, and thus can also be maintained on the computer.

Insert Master Vehicle Record Form)

Vehicle Daily Preventive Maintenance Inspection Checklist

This checklist is designed to record daily inspections for a five day period on each form. This form must be completed daily by vehicle driver(s). The inspection should be done before the vehicle begins the first route. A good pre-trip inspection should include checking all fluids, safety equipment (including all flashing lights), the exterior and interior condition of the vehicle and the operation of the brakes, doors and wheelchair lift. Each inspection checklist is to be initialed and dated by the driver daily. The daily checklist must be reviewed and initialed by the dispatcher, maintenance supervisor or operation coordinator at least weekly. **PROBLEMS NOTED OR ITEMS INDICATED AS NEEDING ATTENTION ARE TO BE REPORTED BY THE DRIVER EACH DAY. EACH COMPLETED CHECKLIST IS TO BE PLACED IN THE INDIVIDUAL VEHICLE FILE.** The forms are to cross reference with repairs/work orders and the Master Vehicle Record.

(Insert Vehicle Daily Preventive Maintenance Inspection Checklist)

REPAIR ORDER

This repair order form is the foundation on which all maintenance information is founded. The repair order is used to authorize and instruct mechanics or vendors on all repairs or scheduled PM services. All work performed, all parts, parts cost, labor, labor cost, and vendor cost should be recorded on forms.

A repair order should be completed whenever any work is done on a vehicle.

(Insert Work Order Form)

4,000 – 6,000 MILE MAINTENANCE

PROJECT GRANTEE: _____ MDOT number _____

NOTE: All service listed on this page must be completed
 Mileage _____
 at each 4,000-6,000 mile interval. This page must be placed
 in vehicle file along with cop of invoice.
 Year _____

Actual

 Vehicle Make &

V. I. N. _____

Please sign below.

MAINTENANCE	CHECK (x)	COST		
		PARTS/MATERIA LS	LABOR	TOTAL
Change engine oil				
Replace engine oil filter				
Check power steering fluid level and add as necessary.				
Inspect tires for wear				
Check fluid levels in the transmission and rear axle.				
Lube brake pedal linkage points and parking brake control lever.				
Inspect fluid level in brake master cylinder.				
Lube steering linkage ball joints and wheel stops.				
Inspect all belt drives for cracks, cuts and replace as necessary.				
Check brake and power steering hoses for deterioration and leaks. Inspect all hose connections such as clamps and couplings.				

TOTAL _____

Service Performed By: _____

_____ Date

Reviewed By: _____

_____ Date

8,000 – 12,000 MILE MAINTENANCE

PROJECT GRANTEE: _____ MDOT Number _____

NOTE: All service listed on this page must be completed . Actual Mileage _____
at each 4,000-6,000 mile interval. This page must be placed in vehicle file along with copy of invoice. Vehicle
Make & Year _____

V. I. N. _____

Please sign below.

MAINTENANCE	CHECK (x)	COST		
		PARTS/MATERIA LS	LABOR	TOTAL
Clean carburetor air filter.				
Check exhaust system for leaks, missing or damaged parts.				
Check headlight aim.				
Check cooling system for leaks, radiator cap for proper vacuum sealing and operation & antifreeze concentration.				
Check belts and operation of control for air conditioning unit.				
Inspect seals on suspension ball joints, steering linkage pivots and U- joints.				
Lubricate body mechanisms: hood, door hinges, window latches.				
Apply solvent carburetor choke shaft.				
Apply solvent to fast idle cam & pivot pin.				
Change oil				
Additional Maintenance:				

TOTAL _____

Service Performed By: _____

_____ Date

Reviewed By: _____

_____ Date

20,000 – 24,000 MILE MAINTENANCE

PROJECT GRANTEE: _____

MDOT Number _____

NOTE: All service listed on this page must be completed at each 20,000-24,000 mile interval. This page must be placed in vehicle file along with copy of invoice.

Actual Mileage _____

Year _____

Vehicle Make &

V. I. N. _____

Please sign below.

MAINTENANCE	CHECK (x)	COST		
		PARTS/MATERIA LS	LABOR	TOTAL
Drain and refill rear axle fluid.				
Replace carburetor air filter.				
Re-lubricate front suspension ball joints.				
Front end alignment / inspect brakes.				
Inspect rear wheel bearings. Clean and repack as necessary & whenever brake linings are replaced or brake drums resurfaced.				
Replace spark plugs.				
Replace fuel filter.				
Change fluid and filter for automatic transmission.				
Check cooling system for leaks, radiator cap for proper vacuum sealing and operation & antifreeze concentration.				
Additional Maintenance:				

TOTAL _____

Service Performed By: _____

_____ Date

Previewed By: _____

SIX – MONTH PREVENTIVE MAINTENANCE INSPECTION WORKSHEET

The Semi-annual PM Checklist must be completed by a qualified maintenance person, such as mechanic or maintenance supervisor. This checklist must be reviewed and initialed by the person with maintenance oversight responsibilities and filed in the individual file for each vehicle.

**MDOT SIX MONTH PREVENTIVE MAINTENANCE
INSPECTION WORK SHEET**

PROJECT: _____

VEHICLE MAKE & YEAR _____

OK

MDOT # _____

ADJUSTMENT MADE

V.IN. _____

NEEDS ATTENTION

MILEAGE _____

SPECIAL INSTRUCTION
FOR REPAIRS NEEDS _____

PREPARE FOR INSPECTION COMMENTS
 CHECK DRIVERS REPORT WASH VEHICLE
 REVIEW MAINTENANCE HISTORY

START UP AND DRIVE (Check operation condition of :) COMMENTS
 Starting System Transmission
 Parking Brake Horn
 Service Brake Speedometer

REMAIN IN VEHICLE (Check Operation Condition of :) COMMENTS
 Fuel Gauge 4-Way Flasher, Indicators
 Oil Gauge Interior Lights
 Battery Charging Gauge Instrument Panel Lights
 Windshield Washer & Wipers Heater & Defroster
 Steering Wheel Air Conditioner
 Headlights, Hi Indicator All Window Glass
 Turn Signal Indicators Doors
 Seats Safety Equipment

OUTSIDE INSPECTION (Check Condition of :) COMMENTS
 Hood Outside mirrors
 Bumpers, Body Damage Wheels & Rims, Tighten Lugs
 All Lights including 4-way flasher Tires, Check Wear, Cracks
 Fuel Cap and Pressure
 Clean A/C Condenser

UNDER HOOD (Check Operation Condition of :) COMMENTS
 A/C Compressor, Mounting & Belt Tension Fuel Leaks (Correct)
 Steering Gear & Shaft (tube) Radiator, Check Level
 Power Steering Hoses & Fluid level Radiator (clean Front)
 Water pump & Fan Belt Alternator, Belt Tension
 C/Case Breather (clean/Changer) Terminal, Check
 Air Filter, change Battery, Check Water level
 Exhaust System, Tighten Battery, Clean Cables
 Engine Oil and Filter Change Master Cylinder Fluid Level
 Hoses, Check & Adjust

UNDER CHASSIS COMMENTS
 Engine & Trans. Mounting Bolts (check & adjust) Exhaust Muffler, Tail Pipe Hangers
 Body Mounting Bolts (check & adjust) Differential, Check Gear Oil Level & Clear Breather
 Transmission, Check Gear Fluid Level Brakes (Adjust, if needed)
 Transmission, Check Cover, (Well & Seal Areas for Leaks) Springs, Bolts (check for Cracks, rust and Tighten)

INSPECTOR/MECHANIC SIGNATURE _____

DATE _____

TIPS FOR IMPROVED MAINTENANCE MANAGEMENT

A MASTER PERFORMANCE RECORD IS CRITICAL TO A GOOD PREVENTIVE MAINTENANCE PROGRAM –

- ❖ RECORD ALL MAINTENANCE PERFORMED ON VEHICLE.
- ❖ CONTRACT WORK – PROVIDE A LIST OF ALL MAINTENANCE TO BE PERFORMED.
- ❖ INSIST REPAIR SHOP MECHANIC INITIAL EACH ITEM PERFORMED.
- ❖ CHECK EACH ITEM INDIVIDUALLY TO SEE THAT CONTRACT WORK HAS BEEN PERFORMED.

TRAIN DRIVERS TO BE ALERT AND LISTEN FOR CHANGES IN THE SOUND AND FEEL OF VEHICLES, 0IN ADDITION TO OBSERVING THE GAUGES FREQUENTLY.

- ❖ CHECK THE STEERING. IS IT RESPONSIVE? DOES THERE APPEAR TO BE TOO MUCH “PLAY” OR JERKING IN THE STEERING SYSTEM? IS STEERING STEADY IN TURNS AND WHEN GOING OVER BUMPS? REPORT ANY UNUSAL OR SUBSTANDARD STEERING CONDITION IMMEDIATELY.
- ❖ CHECK TRANSMISSION OPERTATION. WITH THE TRANSMISSION ENGAGED IN EITHER A FORWARD OR REVERSE POSITION, THE VEHICLE SHOULD START OUT SMOOTHLY IN RESPONSE TO DEPRESSING THE ACCELERRATOR PEDAL AND THE TRANSMISSION SHOULD NOT PRODUCE ANY UNUSAL METALLIC NOISES. A MANUAL TRANSMISSION SHOULD ALLOW FOR EASY SMOOTH GEAR CHANGES THROUGHOUT THE ENTIRE SHIFTING RANGE, REPORT ANY UNUSUAL NOISES OR SHIFTING DIFFICULTY FOR IMMEDIATE INSPECTION.
- ❖ CHECK THE SUSPENSION. IS THERE EXCESSIVE “BOUNCE” OR DOES THE VEHICLE “BOTTOM” WHEN GOING OVER BUMPS OR POT HOLES? DOES IT “WEAVE” OR “SWAY” EXCESSIVELY, WHEN TURNING CORNERS OR ON CURVES? THESE PROBLEMS MAY BE DUE TO BROKEN SPRINGS OR FAULTY SHOCK ABSORBERS. REPORT ANY UNUSUAL RIDING OR HANDLING CHARACTERISTICS FOR IMMEDIATE INSPECTION.

PUBLIC TRANSIT DIVISION

PREVENTIVE MAINTENANCE PROGRAM TIPS!

A PREVENTIVE MAINTENANCE PROGRAM IS CRITICAL FOR THE LONG-TERM LIFE OF A VEHICLE.

VEHICLE BODIES AND INTERIORS SHOULD BE MAINTAINED IN A MANNER THAT PROMOTES THE IMAGE OF TRANSIT AS AN ATTRACTIVE, COMFORTABLE, SAFE AND EFFICIENT MEANS OF TRANSPORTATION.

TO PROVIDE ATTRACTIVE, CLEAN AND RELIABLE SERVICE, VEHICLES SHOULD BE **SERVICED** AND **CLEANED** ON A **DAILY** BASIS.

TO MINIMIZE BREAKDOWNS AND EXPENSIVE REPAIRS, THERE ARE SEVERAL METHODS THAT WILL ALERT YOU THAT A PARTICULAR COMPONENT MAY NEED CHANGING OUT.

1. **VEHICLE INSPECTION** – THOROUGH MAJOR AND MINOR INSPECTIONS WILL IDENTIFY COMPONENTS THAT ARE WEARING OUT AND NEED TO BE REPLACED.
2. **DAILY SERVICING RECORD** – REVIEW RECORDS ON A DAILY BASIS TO SCHEDULE VEHICLES FOR REPAIR THAT ARE USING EXCESSIVE OILS, FUEL OR COOLANT.
3. **DRIVER DEFECT CARD** – VEHICLES FREQUENTLY WRITTEN UP FOR SOME DEFECT (EXAMPLES: SOFT BRAKES, NO POWER, CLUTCH SLIPS) MAY HAVE A MAJOR COMPONENT THAT IS NEAR THE END OF ITS USEFUL LIFE AND REQUIRES CHANGE OUT.
4. **VEHICLE HISTORY FILE** – BY PERIODIC REVIEW OF VEHICLE HISTORY FILE, THE SUPERVISOR WILL BE AWARE OF VEHICLES WITH HIGH MILEAGE COMPONENTS AND TAKE STEPS TO ENSURE GOOD VEHICLE PERFORMANCE.

MDOT Lift Preventive Maintenance Schedule

Vehicle _____ VIN _____ Date _____
Inspector: _____

Pre-Trip Inspection

Before each scheduled day of lift service, operate lift **minimum one complete cycle** and inspect each of the following:

- Does the lift interlock (if equipped) function as intended?
- Does the lift cargo door light (if equipped) function as intended?
- Does the lift deploy when the lift interlock is activated as intended?
- Does the lift safely clear the cargo door as the lift is deployed and stowed?
- Does the lift operate smoothly (no jerking or abnormal movement)?
- Does the lift operate at normal speed?
- Is the lift power source adequate?
- Does the roll stop(s) operate properly?
- Do the handrails operate properly?
- Is the platform angle normal?
- Is lift operation quiet (no rattles, abnormal sounds, etc.)?
- Has the hand-held switch box cable been damaged?
- Do the lift control switches function properly?
- Do the lift cargo door securement devices function as intended?
- Is the manual back-up pump handle in place?

Weekly Inspection:

- Is the hand pump valve closed securely (tight)?
- Are the lift-posted and door-posted decals worn, missing or illegible?
- Can you visually detect any lift wear, damage, misalignment, hydraulic leaks, loose bolts, broken welds or any abnormal conditions?
- Clean lift surfaces where wheelchairs travel.
- Clean and lubricate key locations based on lift usage frequency and climate conditions (outlined by your transit agency). Lubrication procedures should be performed by transit agency maintenance personnel.