1. **Executive Summary**

**1.1 Overview**

The Preventative Maintenance Service Agreement between [NAME OF MAINTENANCE PROVIDER] and [NAME OF AGENCY] is designed to formalize the arrangement between [NAME OF MAINTENANCE PROVIDER] and [NAME OF AGENCY] to provide specific preventative maintenance services and support at an agreed-upon cost. Managing a fleet of vehicles that are funded by the Florida Department of Transportation requires following a set of minimum maintenance requirements established by the *FDOT Preventative Maintenance Standards* Manual 5th Edition. These standards are created to ensure maximum vehicle life and passenger safety through regularly scheduled preventive maintenance. Preventative maintenance is defined as systematic inspection, detection, correction and prevention of emerging vehicle component failures before actual in-service failures result. The preventative maintenance services provided by [NAME OF MAINTENANCE PROVIDER] will assist [NAME OF AGENCY] with meeting or exceeding these state and federal guidelines by following the preventative maintenance inspection procedures as detailed in the *FDOT Preventative Maintenance Standards* Manual 5th Edition.

**1.2 Scope of Preventative Maintenance**

The following services are the minimum requirements that shall be provided by [NAME OF MAINTENANCE PROVIDER]:

[NAME OF MAINTENANCE PROVIDER] will perform vehicle inspections at pre-determined mileage intervals determined by [NAME OF AGENCY] following the guidelines described in the *FDOT Preventative Maintenance Standards Manual 5th Edition*. Original Equipment Manufacturer (OEM) maintenance guidelines must also be followed at the appropriate mileage intervals determined by the vehicle manufacturer for the vehicle to maintain warranty status.

[NAME OF MAINTENANCE PROVIDER] must have a competently trained staff and proper shop equipment to perform the inspections listed below. Mechanics shall be trained in Wheelchair Lifts and Securement Devices to sufficiently perform inspections in these areas. If [NAME OF MAINTENANCE PROVIDER] mechanics are not trained in these areas, training will be made available. Additional training will also be made available to mechanics for transit vehicle specific components.

[NAME OF MAINTENANCE PROVIDER] will use preventative maintenance inspection forms provided by [NAME OF AGENCY] as a checklist to complete each preventative maintenance inspection. (See EXHIBIT A) Upon completion of each inspection, [NAME OF MAINTENANCE PROVIDER] will provide AGENCY with an itemized list of needed repairs before the vehicle reaches the next preventative maintenance inspection. If any safety sensitive vehicle components are found to be defective during the inspection, [NAME OF MAINTENANCE PROVIDER] will notify [NAME OF AGENCY] immediately. The following components are considered to be safety sensitive:

* Steering System
* Service and Parking Brake
* Suspension and Undercarriage
* Tires, Wheels, and Wheel End Components
* Fuel and Exhaust Systems
* All Lights, Mirrors, Wipers, and Warning Devices
* Interlock Systems
* Interior Controls, Gauges, and Safety Equipment
* Wheelchair Lifts
* Air System
* Emergency exits (doors, windows, etc.)

[NAME OF AGENCY] must provide approval before defective items are repaired by [NAME OF MAINTENANCE PROVIDER]. [NAME OF AGENCY] has the right to obtain a second opinion by another outsource facility and choose which company will make the appropriate repairs. [NAME OF AGENCY] will render payment to [NAME OF MAINTENANCE PROVIDER] upon receipt of completed preventative maintenance inspection forms and itemized invoices for replaced or repaired defective components.

[NAME OF MAINTENANCE PROVIDER] may provide additional routine maintenance services at the discretion of AGENCY Routine maintenance services include additional component or fluid replacements based on varying mileage intervals that may be different than the preventative maintenance inspection intervals determined by [NAME OF AGENCY]. Examples of routine maintenance services may include oil change, transmission fluid change, other fluid changes, or any vehicle components replaced at pre-determined mileage intervals based on maintenance trend campaigns. [NAME OF MAINTENANCE PROVIDER] will provide the following routine maintenance services for [NAME OF AGENCY]:

<List additional routine maintenance services and their corresponding target mileage intervals here>

Routine maintenance services are subject to revision if the needs of [NAME OF AGENCY] change. For example, vehicle component replacement schedules may change based on prior failure history maintenance trends. These changes must be mutually agreed upon as stated in Section 2.3. [NAME OF MAINTENANCE PROVIDER] will provide documentation of routine maintenance services in the form of an itemized invoice to [NAME OF AGENCY] prior to receiving payment.

1. **Terms and Conditions**

**2.1 Agreement Period**

This Agreement is valid from the date signed and remains in effect one calendar year.

**2.2 Agreement Renewal**

[NAME OF MAINTENANCE PROVIDER] and [NAME OF AGENCY] may renew the Preventative Maintenance Service Agreement each year after reviewing and agreeing on details of costs and inspection procedures.

**2.3 Agreement Revisions**

Written authorization is required for any changes made to the Preventative Maintenance Service Agreement. Change requests must be provided in writing. Verbal change requests will not be accepted. Once a change request has been submitted, both parties will discuss the impact the change request will have on the Preventative Maintenance Service Agreement. Once both parties agree on the revised items and/or cost, the change request will be accepted. If both parties do not agree on the change, then the change request is not accepted and the original Preventative Maintenance Service Agreement stands. Both parties must sign off on any changes to the existing Preventative Maintenance Service Agreement.

[NAME OF AGENCY] will notify [NAME OF MAINTENANCE PROVIDER] of any new equipment purchased that may require additional resources.

**2.4 Agreement Termination**

Failure to meet terms and conditions of the Preventative Maintenance Service Agreement may result in termination of said agreement. A termination of service and cancellation of the Preventative Maintenance Service Agreement by either party shall require a 30 day written notice.

**2.5 Warranty Items**

[NAME OF MAINTENANCE PROVIDER] will notify [NAME OF AGENCY] when items can be repaired under warranty before such repairs are made. If repairs cannot be reimbursed (parts and/or labor) by the manufacturer to [NAME OF MAINTENANCE PROVIDER], it will be determined by [NAME OF AGENCY] where and by whom the repairs will be performed.

**2.6 Condition of Vehicle Components**

[NAME OF MAINTENANCE PROVIDER] must keep [NAME OF AGENCY] informed of potential problems. Identifying signs of upcoming repairs prior to the necessity of the repair will allow [NAME OF AGENCY] to budget effectively for such a repair. [NAME OF MAINTENANCE PROVIDER] will also provide expected remaining mileage before vehicle component failure and wear tolerance estimate to [NAME OF AGENCY] to allow adequate time for defective vehicle components to be scheduled for repair or replacement.

**2.7 Schedule**

Preventative maintenance is scheduled in advance. Maintenance inspections will be scheduled prior to the inspection date. [NAME OF AGENCY] is responsible for notifying [NAME OF MAINTENANCE PROVIDER] of necessary maintenance inspections prior to the inspection date. [NAME OF MAINTENANCE PROVIDER] is responsible for notifying [NAME OF AGENCY] of the expected length of time the vehicle(s) receiving inspection will be out of service and communicating the impact of the situation should defects be found during the inspection process.

When unforeseen problems occur, effected vehicles are generally taken out of service until the problem is resolved. If a problem is discovered by [NAME OF MAINTENANCE PROVIDER], the provider shall communicate directly with [NAME OF AGENCY] regarding the vehicle’s estimated downtime to allow for necessary repairs. This practice will provide [NAME OF AGENCY] with critical knowledge necessary when determining when the vehicle repair should be scheduled.

**2.8 Cost**

[NAME OF AGENCY] shall pay [NAME OF MAINTENANCE PROVIDER] $[Insert Cost] per vehicle and per type of inspection in exchange for services as stated in Section 3.1 of this Preventative Maintenance Service Agreement. Prices shall be fixed throughout the year from the start date of the contract until the end of the contract.

[NAME OF MAINTENANCE PROVIDER] may adjust Preventative Maintenance Service Agreement prices due to commodity escalation costs.  However, [NAME OF MAINTENANCE PROVIDER] must first show proof of burden of the escalated costs.  Escalation will be calculated based on the following formula which utilizes the U.S. Department of Labor/Bureau of Labor Statistics Consumer Price Index (CPI) “Motor Vehicle Parts and Equipment” and/or “Motor Vehicle Maintenance and Repair” and not seasonally adjusted. In no event will the prices for any commodity exceed by more than 5% the price(s) that would have been in effect twelve (12) months prior to the agreement execution date.

According to the U.S. Department of Labor, escalation agreements using the CPI usually involve changing the base payment by the percent change in the level of the CPI between the reference period and a subsequent time period. This is calculated by first determining the index point change between the two periods and then the percent change. The following example illustrates the computation of percent change:

|  |  |
| --- | --- |
| CPI for current period | 136.0 |
| Less CPI for previous period | 129.9 |
| Description: http://www.bls.gov/images/trans.gifEquals index point change | 6.1 |
| Divided by previous period CPI | 129.9 |
| Description: http://www.bls.gov/images/trans.gifEquals | 0.047 |
| Result multiplied by 100 | 0.047 x 100 |
| Description: http://www.bls.gov/images/trans.gifEquals percent change | 4.7 |

Furthermore, if commodity prices decrease, [NAME OF AGENCY] will have the option to terminate the current Preventative Maintenance Service Agreement and renegotiate a new agreement based on the decreased commodity prices.

[NAME OF AGENCY] shall only pay for the preventative maintenance inspections outlined in this Preventative Maintenance Service Agreement unless otherwise approved. [NAME OF AGENCY] is not responsible for unauthorized charges.

[NAME OF MAINTENANCE PROVIDER] is responsible for loss or damage of any parts and/or equipment while in its possession.

1. **Itemized Maintenance Procedures**
   1. **Preventative Maintenance Inspection Program**

The preventative maintenance inspection is a program of routine checks and procedures performed on a scheduled and recurring basis to avoid breakdowns and prolong equipment life.

The “A” inspection is performed every [Insert target mileage] miles. It is designed for the inspection, service and replacement of certain items at predetermined times and to identify any possible defects which might have occurred and to make necessary minor adjustments.

The “B” inspection is performed every [Insert target mileage] miles. This inspection repeats the “A” inspection items and includes certain indicated additional items to be inspected and serviced.

The “C” inspection is a technical and performance inspection and is accomplished every [Insert target mileage] miles. The “A” and “B” inspection items are repeated and additional scheduled items are required to be accomplished which were not part of the other inspection intervals.

Requirements for conducting the A, B and C-level preventative maintenance inspections are taken from the *FDOT Preventative Maintenance Standards* Manual 5th *Edition.* This manual serves as FDOT’s minimum maintenance requirements for vehicles purchased or operated using federal and/or state public transit funds.  The maintenance provider shall examine each applicable vehicle component listed in the manual at the appropriate target mileage interval provided by [Name of Agency] using the corresponding method described in the *FDOT Preventative Maintenance Standards Manual* 5th *Edition*.  By signing this service agreement, [Name of Maintenance Provider] agrees to conduct preventative maintenance inspections according to these requirements.  These inspection requirements are provided in Exhibit A.

Based on the recent Manual discussion, does “insert target mileage” still work?

**4. Signature Page**

This Preventative Maintenance Service Agreement is made between [NAME OF AGENCY] and [NAME OF MAINTENANCE PROVIDER] commencing on the date this Agreement is signed by [NAME OF AGENCY].

This agreement shall become effective commencing on the date this Agreement is signed by [NAME OF AGENCY] and shall remain in effect for one year from that date.

**Effective Date:**

**Expiration Date:**

**[NAME OF MAINTENANCE PROVIDER]**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Project Manager Name Printed

Project Manager Signature Date

**[NAME OF AGENCY]**

Executive Director Name Printed

Executive Director Signature Date

**EXHIBIT A**

**Preventative Maintenance Inspection Requirements**

The preventative maintenance inspection requirements included in this service agreement are taken from the *FDOT Preventative Maintenance Standards* Manual 5th Edition. This manual serves as FDOT’s minimum maintenance requirements.

|  |
| --- |
| **IMPORTANT NOTE** |
| ***FDOT has determined that the following vehicle components require a vehicle lift to be properly inspected. The “Item #” in parentheses corresponds to numbers on the FDOT-approved “Preventative Maintenance Inspection Report” Checklist found in Exhibit A. This form is included in the Preventative Maintenance Standards Manual 4.1 Edition:***   * ***Torque rods (Item #60)*** * ***Ball joints (Item #61)*** * ***Steering Gear/Linkage & Arms (Item #62)*** * ***Lube Chassis (Item #64)*** * ***Drive shaft & U-joints (Item #65)*** * ***Differential Oil Level/Clean Breather/Axle seals (Item #66)*** * ***Drain and refill differential fluid (Item #67)*** * ***Replace transmission fluid and filter (Item #68)*** * ***Front Wheel Bearings (Item #69)*** * ***Air Tank Mounting/Lines & Valves (Item #71)*** * ***Exhaust System for Mounting/Leaks/Restrictions (Item #72)*** * ***Underbody/Mounts & Frames (Item #73)*** * ***Fuel Tank Mounting & Fuel Leaks (Item #74)*** * ***Brake Foundation/Lines/Rotors/Drums (Item #82)*** * ***L/Front Brakes % Worn (Item #83)*** * ***R/Front Brakes % Worn (Item #84)*** * ***L/Rear Brakes % Worn (Item #85)*** * ***R/Rear Brakes % Worn (Item #86)***   ***Additionally, it is beneficial for the following vehicle components to be suspended on a lift to ensure accuracy:***   * ***Engine Oil & Filter (Item #53)*** * ***Shocks/Springs/MOR/ryde (Item #59)*** |

I think there were some changes made here. Need to use new Manual

**Table 1: “A” Level Inspection Components***The “Item #” in these tables correspond to numbers on the FDOT-approved “Preventative Maintenance Inspection Report” Checklist. This form is included in the Preventative Maintenance Standards Manual.*

|  |  |
| --- | --- |
| **Item #** | **Component** |
| **Interior** | |
| 1 | **Passenger Door/ Check Operation of All Interlocks and/or Starter Interrupt**  Check to ensure interlock system is working properly when parking brake is applied. Vehicle should not come out of park with either the front door or wheelchair lift door open. If equipped, check passenger door sensitive edge operation. |
| 2 | **Standee Line & Warning**  On vehicles designed to allow standees, check the condition of the standee line and sign. The line must be of contrasting color at least two inches wide and the sign, prohibiting anyone from occupying a space forward of the line, must be posted at or near the front of the vehicle. |
| 3 | **Flooring/ Steps/ All Interior Panels**  Inspect floor covering for tears, rips, or gouges. Inspect headliner for damage, sag, or dirt. Inspect the condition of side panels. Check steps for yellow edge or nosing to pronounce presence of steps. |
| 4 | **Wheelchair Belts/ Floor Anchors**  Check wheelchair seat belt lap extensions and wheelchair shoulder harnesses for proper function. Inspect wheelchair securement devices for damaged webbing and proper operation of locking mechanism. Inspect floor tie down anchors. Ensure the vehicle is equipped with the proper amount of securement devices for the number of wheelchair positions. |
| 5 | **Passenger Seat Condition/ Foldaway Seat Operation**  Seat covering for the driver and passenger seats should be inspected for rips, tears, gouges, exposed springs, and security of floor mounting. Arm rest(s) should be inspected for proper attachment to seat(s). Check folding seats for proper operation of adjustment controls. Check the driver’s seat for proper fore and aft movement and tracks should be lubricated as necessary. |
| 6 | **Passenger Seat Belts**  Seat belts should be inspected for proper retraction mechanisms and damaged webbing. |
| 7 | **Stanchions & Hand Rails**  Inspect condition of the grab rails and stanchions for the standee passengers. Tighten grab rails as necessary. Note if extensive repairs are necessary. |
| 8 | **Roof Hatches/ Operation**  Check roof hatches to ensure proper function and that they shut and open properly. |
| 9 | **Emergency Door and Window Operation**  Check emergency door operation to ensure proper function. Check window exits to ensure all exits function properly. Ensure that all emergency exit signage is clear and legible. |

**Table 1: “A” Level Inspection Components (cont.)**

|  |  |
| --- | --- |
| **Item #** | **Component** |
| 10 | **Fire Extinguisher/ First Aid Kit/ Emergency Triangles/ Spill Kit**  Inspect the above mentioned safety equipment to ensure it is in proper working order, securely mounted, and easily accessible. Fire extinguisher must be fully charged with a dry chemical or carbon dioxide, having at least a 1A:BC rating and bearing the label Underwriters Laboratory Inc.  Check maintenance tag for expiration date and condition of all components for damage or conditions that may prevent operation. Nozzle outlets must be unobstructed and properly aimed. |
| 11 | **Fire Suppression System**  If equipped with fire suppression system check “System OK” LED is illuminated. Check that system is properly charged and that all instruction labels are intact, clean, and legible. Ensure inspection tag for expiration date. Check the condition of all components for damage or conditions that may prevent operation. Nozzle outlets must be unobstructed, properly aimed, and must have their protective covers.  Follow the fire suppression system manufacturer’s guidelines for servicing the system. |
| 12 | **Interior Lights**  Inspect the interior lights. Check step well lights if applicable for proper function by opening door. Check dome light switch/rheostat. Check turn signal and the hi-lo beam switches as well as the indicators on dash for proper function.  Check all emergency exit lights at emergency windows and rear exit door. |
| 13 | **Vehicle Registration/ Plates**  Check condition and currency of license plate and registration and appropriate manuals. Ensure accident report forms and other appropriate documents are up to date and available in the vehicle. Check for wheelchair lift operating manual, if applicable. |
| **Drivers Compartment** | |
| 14 | **Brake & Accelerator Pedals**  Check pedals for sticking, binding, or failure to return to normal position. Check pedals for excessive pad wear. |
| 15 | **Driver’s Seat & Belt**  Check the driver’s seat for proper fore and aft movement, and tracks should be lubricated as necessary. Check the driver’s seat belt for proper retraction mechanisms and damaged webbing. |
| 16 | **Horn Operation**  Check horn. The horn must be capable of emitting a sound audible under normal conditions from a distance of not less than 200 feet. |
| 17 | **Service Brake Operation**  From the driver’s seat, pump the brake pedal three or four times and then hold constant downward pressure on pedal for at least five seconds. The brake pedal should hold firm and not drift down. If equipped with a hydraulic brake reserve system, with the key off, depress the brake pedal and listen for the sound of the reserve system electric motor.  If equipped with hydro boost system or vacuum assist system, with the key off, pump the brake at least five times and depress the brake pedal. It should feel firm. Remain holding the pedal and start the engine. The pedal should move slightly to the floor and then rise.  Check that the warning buzzer or light is off. |

**Table 1: “A” Level Inspection Components (cont.)**

|  |  |
| --- | --- |
| **Item #** | **Component** |
| 18 | **Ignition System (Start Engine)**  When starting the engine, listen for starter drag or grind, belt squeal, and any other unusual noises. As engine warms, monitor all gauges. Check shift selector for smooth operation and can be shifted into all ranges. |
| 19 | **Check All Gauges/ Switches**  Activate ignition switch and check all warning indicator lights (oil, battery, engine, etc.) for proper operation. If the vehicle is equipped with gauges, check proper readings after the engine has been started. Check all switches, levers, and knobs for proper function. |
| 20 | **Check Fast Idle**  Check fast idle system for proper operation. |
| 21 | **Check Air System Pressures/ Perform Leak Down Test**  Drain all air tanks and check operation of system drier. Build air system to maximum air pressure and observe governor cut out (100- 125 psi). Shut off engine and chock wheels if necessary. Release emergency brake and make a full brake application and hold for one minute. Check air gauge to see if pressure drops more than three pounds in one minute. Next, rapidly pump the foot brake. Buzzer should activate before air pressure drops below 60 psi. Continue to pump brakes until emergency brake pops up. This should occur at approximately 40 psi. The amount of time it takes to build the air pressure is important. Air pressure should go from 85psi to 100psi in 40 seconds. |
| 22 | **Shift Lever Operation**  Move the shift lever into each gear and ensure the detents are operating correctly. |
| 23 | **Parking Brake Operation**  While the vehicle is on an incline, apply the parking brake and shift vehicle into low gear slightly pulling against the brakes. Vehicle should not move. If the vehicle cannot be checked on an incline, lightly accelerate the vehicle while the parking brake is applied. Again, the vehicle should not move. Parking brake should be adjusted to hold the vehicle in all terrains. |
| 24 | **Back-Up Alarm**  While depressing the brakes shift the vehicle into reverse and check the audible back-up alarm. |
| 25 | **Driver’s & Panel Lamps**  Inspect the interior lights. Check step well lights if applicable for proper function by opening door. Check dome light switch/rheostat. Check turn signal and the hi-lo beam switches as well as the indicators on dash for proper function.  Check all emergency exit lights at emergency windows and rear exit door. Check all dash and gauge lights for proper operation. |
| 26 | **Interior Mirrors/ Sun Visor**  Check inside rear view mirror(s) for proper mounting, adjustment, and condition of the glass. Also check the right and left exterior mirrors for adequate field of vision. Check sun visor. |

**Table 1: “A” Level Inspection Components (cont.)**

|  |  |
| --- | --- |
| **Item #** | **Component** |
| 27 | **Windshield Wipers & Washers**  Inspect windshield for cracks, scratches, and any visible damage. Operate windshield wipers through all ranges on wet glass. Check washer fluid level. |
| 28 | **Climate Control System/ Fans**  Operate and check heater and air conditioning controls through all selector ranges and check varying fan speed for proper function. Check rear unit output as applicable. |
| 29 | **Fare Collection System**  If equipped, ensure fare collection equipment is securely mounted and operating properly. |
| 30 | **Cleanliness**  Check the general cleanliness of the vehicle interior. |
| **Exterior Inspection** | |
| 31 | **Check for Damage/ Corrosion/ Bumpers & Mounts/ Decals**  Inspect exterior of vehicle for signs of body damage, missing trim, decals, paint condition, and any signs of developing rust. Check front and rear bumpers. Inspect for loose, damaged or missing hardware. Note and repair any significant damage. Inspect the outside of all windows for cracks, blemishes, or other damage. Inspect mirror brackets for secure mounting or rusting. Check mirrors for broken/fading glass. |
| 32 | **Condition of All Glass**  Inspect the outside of all windows for cracks, blemishes, or other damage. |
| 33 | **Wiper Blades & Arms**  Inspect condition of windshield wiper blades and arms. Replace if needed. |
| 34 | **Exterior Mirrors**  Inspect mirror brackets for secure mounting or rusting. Check mirrors for broken/fading glass. |
| 35 | **Check Light Lenses & Reflectors**  Check the condition of the exterior light lenses and reflectors. |
| 36 | **Check Operation of All Lights**  Outside assistance may be required when making this check. Check parking, low and hi beam headlights, turn signal operation front and rear, and hazard flashers. Turn on all outside clearance lights and check operation. At this time also check license plate lights, back-up lights, brake lights, decal lights. All lighting must comply with the minimum requirements set for the in Florida Statutes 316.220, 316.221, 316.224, 316.225, 316.226, 316.234, and 316.235. |

**Table 1: “A” Level Inspection Components (cont.)**

|  |  |
| --- | --- |
| **Item #** | **Component** |
| 37 | **Condensor Fan Operation**  Visually inspect fan blades for cracks, bends and proper clearance from shroud or screen. Check for debris. Turn on the air conditioning system and check fan operation. Listen for any unusual noises. |
| 38 | **All Access Doors/ Engine Cover & Latch Operation**  Inspect exterior access doors and lubricate hinges or spring latches as necessary. Check hood latch and lubricate. Check hood retainer bar. |
| 39 | **Tire Damage & Wear**  Inspect all tires for signs of uneven wear due to imbalance or improper front end alignment, check for exposed cord or steel belts, inspect valve cores, and check sidewalls for scrubbing or damage. Determine tread depth using tread depth gauge. Tread group pattern depth shall not be any less than 4/32 (1/8) inch, measured at any point on a major tread groove for tires on the steering axle and no less than 2/32 (1/16) inch measured at any point on a major tread groove for all other tires. Check air pressure in all tires including spare using tire air gauge. Check condition of spare tire and mounting.  Check tires for cuts, nails, or other embedded foreign objects. Check all wheels, including spare, for any damage, welds, or improper bead seating of tire. Check for missing balance weights. Check hubcaps for secure mounting. |
| 40 | **Check Wheels/ Lug Nuts/ Valve Stems**  Check wheel lugs for proper torque. Inspect rims for any signs of damage or cracks. Check for any missing lug nuts. |
| 41 | **Fuel Cap and Door**  Check fuel cap for proper fit and any signs of damage to fuel servicing piping/ hoses. |
| 42 | **Leveling**  Check vehicle for proper leveling. |
| **Engine Compartment** | |
| 43 | **Clean Batteries and Terminal Ends/ Check Electrolyte Level**  Check battery mounting tray condition for corrosion and wear. Check battery case for cracking or damage. Check post and fasteners for corrosion – clean and cover with protectant. If applicable check and service water levels. If equipped with a maintenance free battery, check “green” indicator. |
| 44 | **Check Battery Hold Downs/ Cables/ Ground Straps**  Check battery hold downs. Check cables for fraying or signs of deterioration. Check battery slide out tray for proper function. |
| 45 | **Record Voltage Output**  Record battery output voltage. |
| 46 | **Check Belts/ Tensioners & Hoses/ Air Compressor Mounting**  Inspect all belts for signs of wear, fraying, cracks, glazing, and proper tension. Inspect heater hoses and connections. Check air compressor mounting for alignment, missing / loose bolts and bracket fractures and/or breaks. |

**Table 1: “A” Level Inspection Components (cont.)**

|  |  |
| --- | --- |
| **Item #** | **Component** |
| 47 | **Check All Fluids**  Check transmission fluid level with the fluid warm and the engine running. Check color of fluid for any signs of overheating. Also check the fluid levels for engine oil, engine coolant, power steering fluid, brake fluid and windshield washer fluid. |
| 48 | **Inspect for Leaks**  Inspect all lines, hoses and reservoirs for signs of leakage. Check engine, transmission, differential and all engine accessories for signs of leaks around gaskets, seals, drain plugs, etc. Repair as necessary. |
| 50 | **Check Radiator Core/ Mounts**  Inspect radiator cap for signs of leaks or pressure loss. Before removing the cap allow the engine to cool down. Relieve any built-up pressure in the system. Remove and inspect the radiator cap. At this time, the radiator cores and the interior of the radiator housing may be visually inspected for corrosion or clogging. Also, if circulation problems are suspected, operation of the water pump and circulation of the coolant may be verified with the engine running. |
| 51 | **Check Wiring for Routing/ Chafing & Loose Connections**  Inspect wiring for signs of chafing, corrosion, loss of insulation and crimping. Ensure wiring does not come in contact with moving parts or heated surfaces. |
| 52 | **Check Engine Mounts**  Check for any signs of loose hardware or deterioration. |
| 53 | **Replace Engine Oil & Filter**  Change oil according to manufacturer’s specifications either under the normal or severe duty operating conditions. The information listed below defines which schedule you need to follow for each vehicle.   * If operating under every day driving conditions, use the recommendations for normal operating conditions. * If operating under the following conditions listed below, use the recommendations for severe operating conditions: * Making frequent short trips (less than five miles) * Driving in hot weather stop-and-go traffic * Driving at sustained high speeds during hot weather * Driving in areas with heavy dust (gravel roads, construction zones, etc.) * Making frequent short trips (less than 10 miles) when temperatures are below freezing * Extensive idling and/or low speed driving for long periods of time (taxi, police, door-to-door delivery, etc.) * Towing a trailer |
| 54 | **Check Air Filter**  Remove air filter and inspect. Inspect air intake hoses and clamps. Visually inspect all vacuum hoses and connections. Replace air filter as needed. |

**Table 1: “A” Level Inspection Components (cont.)**

|  |  |
| --- | --- |
| **Item #** | **Component** |
| 55 | **Check Fuel Filter**  Check and/or replace fuel filter. Inspect fuel lines for leaks or damage. |
| 56 | **Check/ Clean A/C Filters & Cores/ Lines for Routing/ Chafing**  Remove filters and clean or replace, if equipped. Inspect lines for any signs of leaks or chafing. Clean condenser and evaporator fins of any debris. |
| 57 | **A/C Compressor Mounting/ Clutch**  Inspect compressor for any loose or missing hardware. Check pulley alignment and correct if needed. Ensure all wiring is securely routed. |
| **Chassis/Drive Line** | |
| 61 | **Check Ball Joints**  Inspect all ball joints according to manufacturer’s recommendations. Lubricate after inspection. Check king pins if applicable.  Due to varying road conditions, vehicle type, age of vehicle, and type ofjoint, it is recommended that you check the ball joints on every “A” inspection or if any of the following symptoms are observed:   * Front wheel shimmy at low speed * Steering wander * Clunking noises from the front suspension * Camber wear on the tires   **Note*:*** *Most original equipment ball joints today are designed to provide many miles of durability. Many never make it that far for a variety of reasons. One is wear. The constant friction created by turning and driving creates friction between the ball stud and bearing. The rougher the roads and the heavier the vehicle, the faster the rate of wear will occur. Wear can be further accelerated by contamination and/or lack of lubrication. With a greaseable joint, lubing the chassis periodically is necessary to maintain a layer of grease within the joint. Lubing the joint also helps flush out the old grease and contaminants, which*  *extends the service life of the joint. Most OEM ball joints today as well as some aftermarket replacement joints are "sealed for life" and have no grease fittings. Load carrying ball joints do tend to wear at a faster rate than their unloaded counterparts because of the weight they carry. That's why the lower ball joints on an SLA (short long arm) suspension typically wear out before the upper joints.* |
| 62 | **Steering Gear/ Linkage & Arms**  Check steering column for any absence or looseness of U-bolts or positioning parts; worn, faulty, or any welded universal joints. Check steering wheel broken spokes or cracks and for securement.  Check steering box for any mounting bolts loose or missing, any cracks in gear box or mounting brackets. Check for any looseness of the pitman arm on the steering gear output shaft. Check for leaks. |

**Table 1: “A” Level Inspection Components (cont.)**

|  |  |
| --- | --- |
| **Item #** | **Component** |
| 63 | **Steering Shaft & Free Play**  Check for any motion, other than rotational, between any linkage member and its attachment point. Check for loose clamps or clamp bolt on tie rod or drag link. Check for linkage components that are not secured with proper pins or devices. Check for any looseness in any threaded joint. |
| 64 | **Lube Chassis**  Lubricate all steering and suspension zirk fittings. |
| 66 | **Check Differential Oil Level/ Clean Breather/ Check Axle Seals**  Check for proper level. Ensure breather is clean. Check seals for any signs of leakage. Ensure all hardware is secure. |
| 72 | **Check Exhaust System for Mounting/ Leaks/ Restriction**  Check the exhaust system for mounting, routing, leaks and restrictions. |
| **Wheelchair Lift Inspection** | |
| 75 | **Lift Manufacturer Tag/ Month & Year Manufactured/ State of FL Certificate**  Check that each wheelchair lift or ramp are legibly and permanently marked by the manufacturer or installer with the following information:   * The manufacturer’s name and address * The month and year of manufacture   A certificate that the wheelchair lift or ramp securement devices, and their installation, conform to State of Florida requirements applicable to accessible buses. |
| 76 | **Check Lift Wiring for Routing/ Chafing & Loose Connections**  Inspect all lift wiring for proper routing. Inspect pendant cord for any damage. |
| 77 | **Check Lift for Damage/ Inspect Lift Anchor Bolts**  Inspect lift towers for proper alignment. Ensure lift mounting hardware is secure. |
| 78 | **Cycle Lift – Check all Safety Systems Including Barriers**  Cycle lift from stow position to floor level and check outboard roll stop barrier for proper latching. Continue to lower lift to ground level and check for any leaking, damaged, missing parts, and for smooth operation. Raise lift from ground level. With platform slightly off ground make certain the outboard roll stop barrier raises and it is latched securely. This must be performed by visually inspecting the latching mechanism to ensure it is in the correct locked position and by physically attempting to pull/push barrier down with an adequate amount of force to make certain the barrier is secured.  Continue to raise lift to floor level and check for any unusual noises or abnormal operation. Stand on lift platform or place at least 50 pounds of weight on platform and attempt to stow lift. Lift should not fold in. Remove weight and stow lift.  Due to varying lift configurations refer to your lifts Owner’s Manual for a list of warning lights and audible alarms to ensure all of these safety warning devices are working properly. |
| 79 | **Record Lift Cycle Count**  Document the lift cycle count on your preventative maintenance inspection form. |
| 80 | **Check for Hydraulic Leaks/ Level**  Inspect cylinders, hoses, pump and reservoir for any signs of leaks. Check for proper fluid level. |
| 81 | **Clean, Lubricate & Adjust Lift As Needed**  Check lift padding and labels. Check lift manual operation and instruction label. Lubricate appropriate lube points. (see illustrations at the end of this section) Refer to original owner’s manual for lift adjustments if necessary. |

**Table 1: “A” Level Inspection Components (cont.)**

|  |  |
| --- | --- |
| **Item #** | **Component** |
| **Tire Tread Depth/Inflation** | |
| 87 | **L/ Front**  Record the tread depth for the left front tire. |
| 88 | **R/ Front**  Record the tread depth for the right front tire. |
| 89 | **R/R Inside**  Record the tread depth for the right rear inside tire, if applicable. |
| 90 | **R/R Outside**  Record the tread depth for the right rear outside tire. |
| 91 | **L/R Inside**  Record the tread depth for the left rear inside tire, if applicable. |
| 92 | **L/R Outside**  Record the tread depth for the left rear outside tire. |
| 93 | **L/Front**  Record the air pressure for the left front tire. |
| 94 | **R/ Front**  Record the air pressure for the right front tire. |
| 95 | **R/R Inside**  Record the air pressure for the right rear inside tire, if applicable. |
| 96 | **R/R Outside**  Record the air pressure for the right rear outside tire. |
| 97 | **L/R Inside**  Record the air pressure for the left rear inside tire, if applicable. |
| 98 | **L/R Outside**  Record the air pressure for the left rear outside tire, if applicable. |

**Table 2: “B” Level Inspection Components***Remember, during a “B” level inspection, all “A” level components must also be checked.*

|  |  |
| --- | --- |
| **Item #** | **Component** |
| **Chassis/Drive Line** | |
| 59 | **Shocks/ Springs/ MOR/ryde**  Inspect shock absorber cylinders for signs of leakage. Check bushings for signs of wear and the mounting brackets for secure mounting. Inspect coil and/or leaf springs for signs of damage or wear. Check MOR/ryde shear springs if equipped. If equipped with air springs check for leaks, cracks and dry rotting. |
| 60 | **Torque Rods**  Inspect for any damaged or missing bushings. Ensure all hardware is intact and secure. |
| 65 | **Check Drive Shaft & U-Joints**  Check the driveshaft chock wheels if needed and place transmission in neutral. Grasp either side of the u-joint and rotate it back and forth while  watching and feeling for any play between the cross and the yoke. If the cross moves inside the yoke, replacement of the u-joint is warranted. Check slip joint for play.  On vehicles with two piece drive shafts, check center support bearing for excessive compression of the rubber insulator. Inspect the center support bearing by rotating the inner race while holding the outer race. Replace if there is evidence of roughness or wear.  Lubricate driveline u-joints and slip yoke. |
| 70 | **Check Brakes (Pull Wheels)**  Remove wheels and inspect all brake pads/linings for wear. |
| 71 | **Air Tank Mounting/ Lines and Valves**  Check air tank(s), lines and valves for secure mounting. Look for any loose or missing hardware. Check for leaks. |
| 73 | **Underbody/ Mounts & Frames**  Inspect underbody mounts and frame for proper securement. Look for any loose or missing hardware, bushing deterioration, cracks, etc. |
| 74 | **Fuel Tank Mounting & Fuel Leaks**  Check fuel tank for secure attachment to vehicle by inspecting for loose, broken or missing mounting bolts or brackets (some fuel tanks use springs or rubber bushings to permit movement).  Check fuel system for any visible leak at any point. |
| **Brake Inspection** | |
| 82 | **Brake Foundation/ Lines/ Rotors/ Drums**  Check rotors/drums for wear, scoring, and warping. Check calipers/cylinders and brake lines for signs of wear, chafing or leaks. Check for any dirt or grease accumulation on the brake system. |
| 83 | **L/ Front % Worn**  Record the wear observed on the left front brake. |
| 84 | **R/ Front % Worn**  Record the wear observed on the right front brake. |
| 85 | **L/ Rear % Worn**  Record the wear observed on the left rear brake. |
| 86 | **R/ Rear % Worn**  Record the wear observed on the right rear brake. |

**Table 2: “B” Level Inspection Components (cont.)**

|  |  |
| --- | --- |
| **Item #** | **Component** |
| **Test Drive** | |
| 99 | **Check Engine Performance**  Start engine and check for any unusual noises. Check exhaust stream for any unusual color, odor or sound. Check for any active or inactive fault codes and if the engine has any outstanding Technical Service Bulletins from manufacturer. During operational test drive, check for smoothness of acceleration. |
| 100 | **Check Shift Points**  During operational test drive, check operation and position of shift lever and indicator. Check operation in each gear. Check shift points through all gear ranges in drive position. |
| 101 | **Steering**  During operational test drive, check the centering of the steering wheel and the smoothness of turns. Also check for looseness in steering wheel. |
| 102 | **Suspension**  During operational test drive, check for proper tracking of the vehicle, balance of tires, and front end alignment. |
| 103 | **Brakes**  Check for smooth pedal operation during braking. Check for any pulling, vibrating or shaking while braking. Check for any unusual noises such as grinding or squealing coming from wheels. |
| 104 | **Speedometer**  During operational test drive, check operation of speedometer. |

**Table 3: “C” Level Inspection Components***Remember, during a “C” level inspection, all “A” and “B” level components must also be checked.*

|  |  |
| --- | --- |
| **Item #** | **Component** |
| **Engine Compartment** | | |
| 49 | **Test Anti-Freeze Protection**  Test antifreeze for proper protection level using the correct testing equipment. The protection should be at least -34 degrees which represents a 50/50 mixture of water and antifreeze. More protection may be desired depending on your specific climate region. Coolant should appear clean and translucent.  Add, change or flush coolant as necessary to provide adequate protection. |
| 58 | **A/C Pressure Check**  Each spring, prior to the season for constant air conditioning use, the air conditioning system should be scheduled for a thorough operational check. The system should be checked with the appropriate air conditioning service equipment and gauges. Check the entire system for leaks.  Note: The Freon level should be checked and serviced as necessary.  If the system is to be serviced with the opening of a closed system, the complete system should be evacuated; the receiver dryer replaced and the system must be completely recharged, including refrigerant oil.  ***Note: All air conditioning work involving opening the system for repair and recharging must be performed by a licensed certified technician.*** |
| **Chassis/Drive Line** | | |
| 69 | **Check Front Wheel Bearings**  Remove and inspect front wheel bearings, clean and lubricate or replace if necessary. | |
| **OEM Recommended Intervals** | | |
| 67 | **Drain & Refill Differential**  Drain and refill differential fluid according to the vehicle’s OEM recommended interval. Invoices or work orders documenting this must be placed in the vehicle’s history file. | |
| 68 | **Replace Transmission Fluid/ Filter**  Remove transmission pan and drain fluid according to the vehicle’s OEM recommended interval. If the transmission torque converter is equipped with a drain plug, drain fluid from it as well. Inspect debris in the bottom of pan for signs of internal transmission damage. Check the color of fluid for signs of overheating. Remove and replace filter screen. Note any abnormalities on the check off sheet. Invoices or work orders documenting this must be placed in the vehicle’s history file. | |

**EXHIBIT B**

