

EXHIBIT 2

# MAINTENANCE PLAN





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## Introduction

The mission of the Regional Transit System (RTS) is to provide safe, reliable, clean, and well-maintained vehicles throughout the useful life of the asset. The function of the maintenance plan is to provide a consistent systematic program that will enable RTS to properly inspect, maintain and service vehicles while following the manufacturer’s recommended maintenance schedule(s).

### Maintenance Plan Goals

It is the goal of RTS to operate a maintenance program using proven fleet management practices. Scheduling work allows time, materials, tools, equipment, and labor to be effectively managed. A maintenance plan has been adopted to make these goals attainable.

The maintenance plan is a “living document” including schedules and reports which will be updated periodically to reflect changes in maintenance policies, equipment, and program improvements.

The goals of the maintenance plan include:

- An effective preventive maintenance program;
- Defect Reporting;
- The proper management of parts, equipment, and fleet;
- A warranty recovery program;
- Quality assurance

### Fleet Summary

A physical inventory of equipment is kept on file by both the City’s property control personnel and RTS. The fleet information is updated as changes occur in the fleet inventory.

COUNT	VEH MFR	VEH #	YEAR MANU.	MODEL#	VIN#	LTD MILES	ANNUAL MILES	WC LIFT	WC POS
1.	GIL	4	2000	G21D102N4	15GGD2115Y1071313	618203	23028	STEP	2
2.	GIL	19	2000	G21B102N4	15GGD211XY1071328	637733	14738	STEP	2
3.	GIL	102	2001	G21B102N4	15GGB211511071341	653453	18216	STEP	2
4.	GIL	105	2001	G21B102N4	15GGB211011071344	663453	21001	STEP	2
5.	GIL	107	2001	G21B102N4	15GGB211211071992	615668	13612	STEP	2
6.	GIL	108	2001	G21B102N4	15GGD211XY1071328	637737	21828	STEP	2
7.	GIL	110	2001	G21B102N4	15GGB211411071346	675303	22736	STEP	2
8.	GIL	111	2001	G21B102N4	15GGB211X11071349	677685	16938	STEP	2
9.	GIL	116	2001	G21B102N4	15GGB211011071344	687080	20899	STEP	2

COUNT	VEH MFR	VEH #	YEAR MANU.	MODEL#	VIN#	LTD MILES	ANNUAL MILES	WC LIFT	WC POS
10.	GIL	117	2001	G21B102N4	15GGB211211071992	649772	15604	STEP	2
11.	GIL	120	2001	G21B102N4	15GGB211011071358	636335	19370	STEP	2
12.	GIL	283	1996	4096TBS50	15GCD2011T1086959	835335	4675	STEP	2
13.	GIL	315	1997	C20D096N4	15GCD2018V1086979	837708	14029	STEP	2
14.	GIL	316	1997	C20D096N4	15GCD2014V1086980	855528	9811	STEP	2
15.	GIL	317	1997	C20D096N4	15GCD2016V1086981	891614	9102	STEP	2
16.	GIL	318	1997	C20D096N4	15GCD2018V1086982	850722	7042	STEP	2
17.	GIL	319	1997	C20D096N4	15GCD201XV1086983	912220	9248	STEP	2
18.	GIL	320	1997	C20D096N4	15GCD2011V1086984	923896	10467	STEP	2
19.	GIL	321	1997	C20D096N4	15GCD2013V1086985	843147	17384	STEP	2
20.	GIL	322	1997	C20D096N4	15GCD2015V1086986	897806	19023	STEP	2
21.	GIL	330	1997	C20D096N4	15GCD2014V1086994	781678	15679	STEP	2
22.	NOV	501	2001	82VN40102	4RKENTLA01R835266	496129	14533	STEP	2
23.	NOV	502	2001	82VN40102	4RKENTLA21R835267	462784	13885	STEP	2
24.	NOV	503	2001	82VN40102	4RKENTLA41R835268	464133	16239	STEP	2
25.	NOV	504	2001	82VN40102	4RKENTLA61R835269	529374	23583	STEP	2
26.	NOV	505	2001	82VN40102	4RKENTLA21R835270	516624	19927	STEP	2
27.	NOV	506	2001	82VN40102	4RKENTLA41R835271	464634	9054	STEP	2
28.	NOV	507	2001	82VN40102	4RKENTLA61R835272	476060	12286	STEP	2
29.	NOV	508	2001	82VN40102	4RKENTLA81R835273	450084	14583	STEP	2
30.	NOV	509	2001	82VN40102	4RKENTLAX1R835274	502718	15133	STEP	2
31.	NOV	510	2001	82VN40102	4RKENTLA11R835275	414588	18443	STEP	2
32.	NOV	511	2001	82VN40102	4RKENTLA31R835276	453167	13334	STEP	2
33.	NOV	512	2001	82VN40102	4RKENTLA51R835277	428221	9372	STEP	2
34.	NOV	513	2001	82VN40102	4RKENTLA71R835278	462910	14317	STEP	2
35.	NOV	514	2001	82VN40102	4RKENTLA91R835279	463988	16042	STEP	2
36.	NOV	515	2001	82VN40102	4RKENTLA51R835280	441976	141146	STEP	2
37.	GIL	540	2001	C20D096N4	15GCD201611089440	627585	22446	STEP	2
38.	GIL	541	2001	C20D096N4	15GCD201X11089442	614721	30079	STEP	2
39.	GIL	542	2001	C20D096N4	15GCD201X11089444	596322	23242	STEP	2
40.	GIL	543	2001	C20D096N4	15GCD201111089445	563093	18175	STEP	2
41.	GIL	544	2001	C20D096N4	15GCD201311089446	558089	20195	STEP	2
42.	GIL	545	2001	C20D096N4	15GCD201511089447	559529	21165	STEP	2
43.	GIL	546	2001	C20D096N4	15GCD201711089448	584701	24857	STEP	2
44.	GIL	547	2001	C20D096N4	15GCD201311110910	603380	27856	STEP	2
45.	GIL	548	2001	C20D096N4	15GCD201511110911	569781	28508	STEP	2
46.	GIL	549	2001	C20D096N4	15GCD201711110912	562885	27950	STEP	2
47.	GIL	550	2001	C20D096N4	15GCD201911110913	543591	24313	STEP	2
48.	GIL	551	2001	C20004096	15GCD201311110857	512479	25997	STEP	2

COUNT	VEH MFR	VEH #	YEAR MANU.	MODEL#	VIN#	LTD MILES	ANNUAL MILES	WC LIFT	WC POS
49.	GIL	552	2001	C20004096	15GCD2015111110858	560802	19048	STEP	2
50.	GIL	553	2001	C20004096	15GCD2017111110859	576618	39231	STEP	2
51.	GIL	554	2001	C20004096	15GCD2013111110860	473612	27197	STEP	2
52.	GIL	555	2001	C20004096	15GCD2015111110861	538091	27624	STEP	2
53.	GIL	556	2001	C20004096	15GCD2017111110862	559124	19372	STEP	2
54.	GIL	557	2001	C20004096	15GCD2019111110863	537295	25923	STEP	2
55.	GIL	558	2001	C20004096	15GCD2010111110864	548124	32816	STEP	2
56.	GIL	559	2004	C29D096N4	15GCD291X41112483	414850	28332	STEP	2
57.	GIL	560	2004	C29D096N4	15GCD291141112484	438709	33557	STEP	2
58.	GIL	561	2004	C29D096N4	15GCD291341112485	442325	27863	STEP	2
59.	GIL	562	2005	C29D096N4	15GCD291351112486	450502	33299	STEP	2
60.	GIL	563	2005	C29D096N4	15GCD291551112487	446275	32086	STEP	2
61.	GIL	564	2005	C29D096N4	15GCD291751112488	434444	31460	STEP	2
62.	GIL	565	2005	C29D096N4	15GCD291951112489	433646	34592	STEP	2
63.	GIL	566	2005	C29D096N4	15GCD291551112490	457885	34048	STEP	2
64.	GIL	567	2005	C29D096N4	15GCD291751112491	451472	29148	STEP	2
65.	GIL	568	2005	C29D096N4	15GCD291351112746	415701	29633	STEP	2
66.	GIL	569	2006	C29D096N4	15GCD291361112747	383375	30157	STEP	2
67.	GIL	570	2006	C29D096N4	15GCD291561112748	412792	37217	STEP	2
68.	GIL	571	2006	C29D096N4	15GCD291761112749	384033	32404	STEP	2
69.	GIL	572	2006	C29D096N4	15GCD291361112750	398105	24768	STEP	2
70.	Gil	573	2007	C29D096N4	15GCD291711112806	367735	31599	STEP	2
71.	Gil	574	2007	C29D096N4	15GCD291471112807	377565	36119	STEP	2
72.	Gil	575	2007	C29D096N4	15GCD291671112808	368351	30513	STEP	2
73.	Gil	576	2007	C29D096N4	15GCD291871112809	371908	35851	STEP	2
74.	Gil	577	2007	C29D096N4	15GCD291471112810	379891	30924	STEP	2
75.	GIL	701	2007	G27D102N4	15GGD271471078081	315122	33905	RAMP	2
76.	GIL	702	2007	G27D102N4	15GGD271671078082	320460	30029	RAMP	2
77.	GIL	703	2007	G27D102N4	15GGD271871078083	358021	43228	RAMP	2
78.	GIL	704	2007	G27D102N4	15GGD271X71078084	328259	25256	RAMP	2
79.	GIL	705	2007	G27D102N4	15GGD271171078085	328596	37285	RAMP	2
80.	GIL	706	2007	G27D102N4	15GGD271371078086	308272	29540	RAMP	2
81.	GIL	707	2007	G27D102N4	15GGD271571078087	327411	39614	RAMP	2
82.	GIL	708	2007	G27D102N4	15GGD271771078088	321456	35295	RAMP	2
83.	GIL	709	2007	G27D102N4	15GGD271971078089	323051	32099	RAMP	2
84.	GIL	710	2007	G27D102N4	15GGD271571078090	330712	35493	RAMP	2
85.	GIL	711	2007	G27D102N4	15GGD271771078091	349251	41368	RAMP	2
86.	GIL	712	2007	G27D102N4	15GGD271971078092	332493	34049	RAMP	2
87.	GIL	801	2009	G27D102N4	15GGD271991177014	301416	39154	RAMP	2

COUNT	VEH MFR	VEH #	YEAR MANU.	MODEL#	VIN#	LTD MILES	ANNUAL MILES	WC LIFT	WC POS
88.	GIL	802	2009	G27D102N4	15GGD271091177015	297435	28409	RAMP	2
89.	GIL	803	2009	G27D102N4	15GGD271291177016	311309	38236	RAMP	2
90.	GIL	804	2009	G27D102N4	15GGD271491177017	315685	41760	RAMP	2
91.	GIL	1001	2010	G27D102N4	15GGD271XA1178306	235192	32242	RAMP	2
92.	GIL	1002	2010	G27D102N4	15GGD2711A1178309	245622	36457	RAMP	2
93.	GIL	1003	2010	G27D102N4	15GGD2713A1178309	242059	38775	RAMP	2
94.	GIL	1004	2010	G27D102N4	15GGD2715A1178309	230713	47020	RAMP	2
95.	GIL	1005	2010	G27D102N4	15GGD2711A1178310	254053	38206	RAMP	2
96.	GIL	1006	2010	G27D102N4	15GGD2713A1178311	263052	39380	RAMP	2
97.	GIL	1007	2010	G27D102N4	15GGD2715A1178312	264353	43164	RAMP	2
98.	GIL	1008	2010	G27D102N4	15GGD2717A1178313	242019	36067	RAMP	2
99.	GIL	1009	2010	G27D102N4	15GGD2719A1178314	258302	39128	RAMP	2
100.	GIL	1010	2010	G27D102N4	15GGD2710A1178315	251005	37791	RAMP	2
101.	GIL	1011	2010	G27D102N4	15GGD2712A1178316	364015	51997	RAMP	2
102.	GIL	1012	2010	G27D102N4	15GGD2714A1178317	243769	37609	RAMP	2
103.	GIL	1013	2010	G27D102N4	15GGD2716A1178318	259478	45422	RAMP	2
104.	GIL	1014	2010	G27D102N4	15GGD2718A1178319	249425	41188	RAMP	2
105.	GIL	1015	2010	G27D102N4	15GGD2714A1178320	242293	36074	RAMP	2
106.	GIL	1016	2010	G27D102N4	15GGD2716A1178321	244749	42672	RAMP	2
107.	GIL	1017	2010	G27D102N4	15GGD2718A1178322	262097	44073	RAMP	2
108.	GIL	1101	2011	G27D102N4	15GGD2718B1178435	188235	30988	RAMP	2
109.	GIL	1102	2011	G27D102N4	15GGD2718B1178435	185968	39255	RAMP	2
110.	GIL	1103	2011	G27D102N4	15GGD2717B1179558	190769	36686	RAMP	2
111.	GIL	1104	2011	G27D102N4	15GGD2715B1179560	148821	38746	RAMP	2
112.	GIL	1105	2011	G27D102N4	15GGD2717B1179561	160550	33095	RAMP	2
113.	GIL	1106	2011	G27D102N4	15GGD2719B1179562	180439	34581	RAMP	2
114.	GIL	1200	2012	G30D102N4	15GGD3019C1180342	75760	21783	RAMP	2
115.	GIL	1201	2012	G30D102N4	15GGD3010C1180343	76409	21176	RAMP	2
116.	GIL	1202	2012	G27D102N4	15GGD2713C1180336	111609	30061	RAMP	2
117.	GIL	1203	2012	G27D102N4	15GGD2715C1180337	130283	34792	RAMP	2
118.	GIL	1204	2012	G27D102N4	15GGD2717C1180338	124736	36470	RAMP	2
119.	GIL	1205	2012	G27D102N4	15GGD2719C1180339	145387	41232	RAMP	2
120.	GIL	1206	2012	G27D102N4	15GGD2715C1180340	135775	29359	RAMP	2
121.	GIL	1207	2012	G27D102N4	15GGD2717C1180341	126658	32588	RAMP	2
122.	GIL	1300	2013	G30D102N4	15GGD3015D1181859	77328	22350	RAMP	2
123.	GIL	1301	2013	G30D102N4	15GGD3011D1181860	79782	20150	RAMP	2
124.	GIL	1302	2013	G30D102N4	15DGD3013D1181861	74319	20148	RAMP	2
125.	GIL	1401	2014	G30D102N4	15GGD2715E1183998	43187	24976	RAMP	2
126.	GIL	1402	2014	G30D102N4	15DGD2717E1183999	48673	29078	RAMP	2
127.	GIL	1403	2014	G30D102N4	15DGD2718E1184000	41791	25063	RAMP	2
128.	GIL	1501	2015	G30D102N4	15GGD271811845595	30647	16419	RAMP	2

COUNT	VEH MFR	VEH #	YEAR MANU.	MODEL#	VIN#	LTD MILES	ANNUAL MILES	WC LIFT	WC POS
129.	GIL	1502	2015	G30D102N4	15GGD2718F1184595	23889	13838	RAMP	2

## Vehicle History File

RTS currently utilizes fleet management software (FleetNet) to ensure each vehicle has written record's documenting preventive maintenance, regular maintenance, inspections, lubrication and repairs performed. A vehicle's history provides information critical to identify trends with vehicle or components. This information is used in determining the useful life of components, and to employ predictive maintenance measures. The history also provides a data to identify fleet defects.

The following records are maintained for the life of the vehicle and include at a minimum the following information:

- Identification of the vehicle, including make, model, license number or other means of positive identification and ownership;
- Date, mileage, and description of each inspection, maintenance, repair or lubrication performed;
- If not owned by the transit agency, the name of the person or company furnishing service with this vehicle; and
- The name and address of any business firm performing an inspection, maintenance, lubrication or repair.

## Preventative Maintenance

Preventative maintenance inspections are scheduled by mileage projections. When a vehicle is due for an inspection it will be taken out of service until the inspection is completed. This allows a series of repairs to be carried out while minimizing costs and optimizing the number of operational vehicles.

The checklists for preventive maintenance are consistent with the current operating fleet and in particular with the minimum maintenance requirements for vehicles under warranty to ensure maximum vehicle longevity.

Vehicles are scheduled in "A," "B," "C", "D", "E" and "F" inspections. These will be performed at 6,000, 12,000, 24,000, 48,000, 96,000 and 192,000 miles throughout the useful life of the vehicle in the following the sequence:

A 6,000	B 12,000	A 18,000	C 24,000	A 30,000	B 36,000
A 6,000	D 48,000	A 54,000	B 60,000	A 66,000	C 72,000
A 78,000	B 84,000	A 90,000	E 96,000	A 102,000	B 108,000
A 114,000	C 120,000	A 126,000	B 132,000	A 138,000	D 144,000

A 150,000    B 156,000    A 162,000    C 168,000    A 174,000    B 180,000  
 A 186,000    F 192,000

## Bus Type II Preventative Maintenance Inspection and Service Checklist: Gillig Low Floor

14-90.009 BUS SAFETY ITEMS INSPECTED ARE IN "( )" WITH CORRESPONDING NUMBER.

Example (3a)

0000 NOTE WHEN PROMPTED FOR A "YES" OR "NO" ANSWER ENTER Y OR N IN CHECK BOX

00aa Pull in steam bay, put vehicle in neutral, set spring brakes. Dump air to doors and shut vehicle down

00ad remove rear settee fasteners, but leave settee in place

00af Remove and clean HVAC return filter (replace if needed)

00ah Inspect evaporator compartment for cleanliness, loose and damaged parts. Any signs of leaks?

00aj Clean A/C control panel & sensor using canned air (unit not running)

00an Raise vehicle, completely steam clean under body.

00at lower vehicle

00ba Open all exterior compartment doors, pull battery trays out, all engine compartment doors (note any fluid leaks)

00ca Steam clean all exterior door hinges, top of batteries, and engine compartment

00cd Inspect all rims condition (cracks, rust) and security **(30)**

00cg remove settee and from inside bus steam clean rear of engine area

00da Using garden hose clean radiator and hydraulic cooler till water runs clear

00ea Check specific gravity in batteries before filling cells with water record below. Use g=good, f= fair, rc =recharge

00fa Battery 1 - Start at positive post cell1 \_\_\_\_\_ cell 2 \_\_\_\_\_ cell3 \_\_\_\_\_ cell4 \_\_\_\_\_ cell5 \_\_\_\_\_ cell6 \_\_\_\_\_

00ga Battery 2 - Start at positive post cell1 \_\_\_\_\_ cell 2 \_\_\_\_\_ cell3 \_\_\_\_\_ cell4 \_\_\_\_\_ cell5 \_\_\_\_\_ cell6 \_\_\_\_\_

00ha Fill each battery cell to proper level using distilled water

00ia Check general battery condition, terminals for corrosion (clean if necessary) apply anti-corrosion protection **(3D)**

00ja Lube battery tray slides and secure batteries.

00ka Inspect battery equalizer condition, corrosion, damage

00la Check battery shut off switch for corrosion, damage and dirt build up

00ma Fill windshield washer fluid

00na Lubricate all exterior door hinges, locks, bike rack, windshield wiper pivot post, w/c step edge closeout and outer hinge

00ng check electric radiator fans protective caps and retain rings

00nn inspect radiator fan blades for cleanliness and damage

00nt check radiator fan power cable ends for corrosion

00oa Close all exterior compartment doors and secure

05aa Start vehicle, supply air to doors, stow lift and raise bus to proper ride height

05ba Mount brake test equipment and enter bus number

05ca Perform three brake test - pull reading from machine and attach to inspection sheet, after returning to garage **(3E)**

05da Drive test route for "talking bus" system, is it operating correct?

05dg Check condition and security of radio and handset.

05dm Prior to leaving for road test perform radio check. Is it operating correctly?

05ea Drive vehicle on predetermined road test route

05fa Speedometer, dash gauges all operating correctly? **(3V)**

05ga Note any warning lights **(3F)**

- 05ha Note any unusual operating condition, engine performance, transmission shift, vibration, steering play, noises, etc.
- 05ia Operate HVAC system along with defroster working normally?
- 05ja Before pulling in garage, at slow speed open entrance and exit door. Did interlock activate and throttle deactivate? **(3L)**
- 05ka Bring vehicle in garage, set parking brake, activate fast idle, and operate both doors through all door control positions, ok?
- 10aa Check for proper operation of exit door sensitive edge
- 10ba Check driver's seat & seat belt condition and assure all functions operate correctly **(3S)**
- 10ca Inspect condition of all driver's console, dash and saw tooth panels
- 10da Inspect condition and operation of all driver's controls (switches)
- 10ea Release parking brake, perform brake pump down. Did low air alarm activate and parking brake "pop" up @ 60 psi?**(3E)**
- 10fa check condition and covers of both brake and throttle pedals
- 10ga Check proper windshield wiper and washer operation. **(3B)**
- 10ha Check driver's shades for condition & operation
- 10ja Check steering wheel condition and blow horn **(3A)**
- 10ka Check steering column for condition and operation of up/down and back /forth positions
- 10la Check condition and security of fire extinguisher, safety triangles **(3T)**
- 10ma Push "push to test" on AMEREX display, did audio alarm sound & all LEDs light up? Push "Relay Reset" to return to normal operation
- 10mb Assure Amerex display "System Ok" led is illuminated **(3T)**
- 10mf Check that all Amerex dash components are present & in their original location, and are in good working order. Check that all Amerex manual actuation switches/remote actuators are unobstructed by vehicle modifications or clutter
- 10mh check that Amerex tamper indicators, lock wire seal, pull pins and "In Case Of Fire" instruction label are intact
- 10mj Check that Amerex maintenance tag/certificate is in place. Record date of inspections and initial of inspector
- 10na Lubricate driver's seat track, brake & throttle pedals
- 10nn inspect all i/o panels (four) for chaffing wires, loose connection
- 15aa Check condition and security of interior mirrors to include exit door mirror **(3C)**
- 15ba With entrance door open check "stop request" signal and sign for proper operation **(3I)**
- 15ca Check condition & operation of (3) w/c jump seats (release handle, locking in both the up/down positions) **(3U)**
- 15da Check condition & operation of the (8) tie down straps **(3U)**
- 15ea Check condition & operation passenger restraints (2) **(3S)(3U)**
- 15fa Check condition & operation of the Advance Restraint Module (A.R.M.), lubricate slide lightly
- 15ga Check condition and security of all passenger seats
- 15ha Check condition and security of all stanchions **(3J)**
- 15ia Check wall panel, roof, flooring and standee line condition **(3K)**
- 15im Check egress windows for proper operation. lube release bolts and cable **(3N)**
- 15ja Check condition, operation of roof hatches **(3N)**
- 15ka Check interior dome lights for proper operation **(3I)**
- 20ca Activate destination signs and exterior lights test modes
- 20da Inspect exterior lights, destination signs for proper operations **(3G)(3H)(3I)**
- 20fa Inspect all exterior panels and glass for any damage
- 20ga Check windshield wiper arms and exterior mirrors for security **(3C)**
- 20ha Drain air tanks, drain wet tank completely first, then the rest. Check for pressure and moisture.
- 20ia Check all engine, transmission, surge tank, hydraulic system for proper fluid levels

- 20ja Pull in bay, set parking brake and deploy w/c ramp **(3U)**
- 25aa Dump air to entrance door, shut engine down
- 25ba Open w/c rising floor asm. and vacuum drive platform
- 25ca Using penetrating oil clean and then lubricate lightly (using 30w motor oil) drive chain and counter balance asm.
- 25da Re-install rising floor, start engine, supply air to entrance door and stow w/c ramp. Shut engine down
- 25ea Prepare lift(s) to raise bus
- 25fa Release parking brake, raise vehicle. Assure that safety locks are engaged on vehicle lift(s)
- 25ga Replace primary fuel filter. Pre-fill before installing.
- 25gg replace air dryer cartridge
- 25gn check air dryer security
- 25ha Supply vehicle air system with shop air
- 25hn Replace hydraulic filter
- 25hn Change hydraulic fluid (refill with 15w-40 motor oil)
- 25ia Change engine oil and filter, take oil sample, prefill filter. **DO NOT LEAVE ENGINE WITHOUT OIL**
- 25in Change transmission fluid, take sample. **DO NOT LEAVE TRANSMISSION WITHOUT OIL**
- 25ja Visually inspect entire undercarriage front to back for any damage, leaks of any kind, all hose and wire condition
- 25jg Replace secondary fuel filter DO NOT PRE-FILL
- 25jj Replace DEF filter
- 25jn Change coolant filter
- 25jt Change Skinner II kit #73642
- 25jw Change main & lube filters
- 25ka Check Spinner II oil filter, for leaks, damage
- 25la Check engine, all fluid lines for leaks, chaffing, bad clamps
- 25ma Check radiator and all coolant lines for leaks, chaffing, bad clamps
- 25na Inspect condition of engine intake system
- 25nm Check charge air cooler and piping, for security, damage
- 30aa Check general condition of bottom half of engine compartment
- 30am Check all Amerex nozzle blow-off caps are intact, nozzles outlets must be unobstructed to hazard its protecting
- 30ap check all Amerex control heads, actuators, hoses, wiring and detectors secure and in good working order
- 30at Check all Amerex wiring connections are sealed from weather and good condition
- 30ba Check all steering components. tie rod ends, u-joints, box, and pitman arm **(3Q)**
- 30ca Check general condition of front axle, fasteners, mud flaps, leveling valves
- 30cg Check front shocks and bushings for wear and leaks **(3P)**
- 30cn Check front axle, external bump stops and rings for wear or damage **(3P)**
- 30ct Check front axle for proper ride height s/b 9" (+/- 1/4")
- 30cw Check front axle for loose or damaged mounting parts
- 30da Clean and grease fittings, driveshaft (3), camshaft bushings (4), slack adjusters (4), tie rod ends (2), kingpins\* (4)
- 30ea Clean and grease fittings continue: intermediate shaft (2) drag link (2)
- 30en Grease output shaft(1) (use hand gun only) use #2 grease
- 30fa Inspect all brake lining condition, wear **(3E)**
- 30ga Check all inner wheel seals, outer gaskets for signs of leakage
- 30gm Replace front wheel bearing oil
- 30ha Check proper wheel bearing oil level

- 30hn Clean rear axle breather
- 30ht Change rear axle fluid
- 30ia Check rear axle for signs of leaks and check for proper gear oil level & twist vent cap
- 30in Check driveline fastener torque s/b 115-135 ft. lb.
- 30ja Check general condition of tires (side walls/tread) **(30)**
- 30ka Check tire depth and record: lf\_\_\_\_\_/32, rf\_\_\_\_\_/32, lri\_\_\_\_\_/32, lro\_\_\_\_\_/32, rri\_\_\_\_\_/32, rro\_\_\_\_\_/32 **(30)**
- 30la Check tire pressure and correct to proper air pressure 110lbs all way around
- 30ma Check slack adjuster condition and operation
- 30na Remove rear brake chamber end cap, inspect spring for alignment. If misaligned replace piggy back
- 30oa Check slack adjuster strokes record: rf\_\_\_\_\_, lf\_\_\_\_\_, lr\_\_\_\_\_, rr\_\_\_\_\_fr (max strokes, front 2" rear 2.5")**(3E)**
- 35aa While checking brake stroke listen for any air leaks
- 35ba Check general condition of rear axle, fasteners, mud flaps, leveling valves
- 35bd Check rear shocks and bushings for wear and leaks **(3P)**
- 35bg Check rear axle for loose or damaged mounting parts **(3P)**
- 35bn Check rear axle ride height s/b 11 1/2" (+/- 1/8")
- 35ca Lower vehicle, set parking brake.
- 35da Visually inspect engine compartment for damaged items (i.e. clamps, loose bolts chaffed line/wires)
- 35ea Check condition and security of alt, a/c & air compressor, radiator fans, starter and hydraulic pump
- 35en Check hydraulic pump mounting bolts
- 35fa Check engine and transmission mounts
- 35ga Check condition of all engine drive belts
- 35gg Check belt tensioners for wear and security
- 35gj inspect engine vibration damper
- 35hn replace engine air filter
- 35ia Check coolant DCA level and record \_\_\_\_\_ Add DCA if needed
- 35id Replaced DPF filter
- 35ig Check exhaust bellows for leaks and alignment **(3R)**
- 35in Check exhaust system for leaks, loose fasteners and straps **(3R)**
- 35iq Set overhead
- 35it Replace secondary fuel filter DO NOT PRE-FILL
- 35it replace crankcase breather element
- 35iv inspect rear engine area for leaks, lines chaffing, any damaged parts
- 35iw re-install settee and fasteners
- 35jd Replace air compressor
- 35je Replace air compressor discharge line
- 35jn Start engine and run for a few minutes, shut down. Check engine and hydraulic fluid levels make necessary adjustments
- 35ka Check a/c compressor oil for color and proper level (proper level of oil 1/4 to 1/2 of site glass)
- 35la Visually inspect clutch armature for wear & overheating caused by slippage
- 35lg check and adjust clutch air gap and check for warp pulley
- 35lm Check jump start plug and cables for cracks, chafing, damage and security. Verify boot is in place
- 35ma Check Amerex agent cylinder gauge, is it in "green pie zone"? Assure all labels are intact, clean and legible and are secure

- 35mm Check all Amerex cylinder, wiring, hose, actuators are secure and good working order
- 35na check a/c refrigerant charge (ball floating in receiver tank sight glass)
- 35oa Check a/c dry eye in receiver tank & liquid line site glass. Record color here \_\_\_\_\_
- 35on Check heat detector wires for chaffing, kinks, or cuts. Perform cable test **(3T)**
- 35pa Inspect a/c condenser for damage and cleanliness
- 35pn check wheel stud torque s/b 450 to 500 ft. lbs. **(30)**
- 40aa Park bus clean area

6000 mile A inspection items - no fill

12000 mile B inspection items - yellow fill

24000 mile C inspection items - green fill (annual)

48000 mile D inspection - blue fill

96000 mile E inspection - orange fill

e 192000 mile F inspection - purple fill

## Maintenance Guidelines

Six (6) thousand mile A-inspection (typical) to include:

- 00aa Pull in steam bay, put vehicle in neutral, set spring brakes. Dump air to doors and shut vehicle down
- 00af Remove and clean HVAC return filter (replace if needed)
- 00ah Inspect evaporator compartment for cleanliness, loose and damaged parts. Any signs of leaks?
- 00ba Open all exterior compartment doors, pull battery trays out, all engine compartment doors (note any fluid leaks)
- 00ca Steam clean all exterior door hinges, top of batteries, and engine compartment
- 00cd Inspect all rims condition (cracks, rust) and security
- 00da Using garden hose clean radiator and hydraulic cooler till water runs clear
- 00ea Check specific gravity in batteries before filling cells with water record below. Use g=good, f= fair, rc =recharge
- 00fa Battery 1 - Start at positive post cell1 \_\_\_\_\_ cell 2\_\_\_\_\_ cell3\_\_\_\_\_ cell4\_\_\_\_\_ cell5\_\_\_\_\_ cell6\_\_\_\_\_
- 00ga Battery 2 - Start at positive post cell1 \_\_\_\_\_ cell 2\_\_\_\_\_ cell3\_\_\_\_\_ cell4\_\_\_\_\_ cell5\_\_\_\_\_ cell6\_\_\_\_\_
- 00ha Fill each battery cell to proper level using distilled water
- 00ia Check general battery condition, battery terminals for corrosion (clean if necessary) apply anti-corrosion protection
- 00ja Lube battery tray slides and secure batteries.
- 00ka Inspect battery equalizer condition, corrosion, damage
- 00la Check battery shut off switch for corrosion, damage and dirt build up
- 00ma Fill windshield washer fluid
- 00na Lubricate all exterior door hinges, locks, bike rack, windshield wiper pivot post, w/c step edge closeout and outer hinge
- 00oa Close all exterior compartment doors and secure
- 05aa Start vehicle, supply air to doors, stow lift and raise bus to proper ride height
- 05ba Mount brake test equipment and enter bus number
- 05ca Perform three brake test - pull reading from machine and attach to inspection sheet, after returning to garage
- 05da Drive test route for "talking bus" system, is it operating correct?
- 05dg Check condition and security of radio and handset.

- 05dm Prior to leaving for road test perform radio check. Is it operating correctly?
- 05ea Drive vehicle on predetermined road test route
- 05fa Speedometer, dash gauges all operating correctly?
- 05ga Note any warning lights
- 05ha Note any unusual operating condition, engine performance, transmission shift, vibration, steering play, noises, etc.
- 05ia Operate HVAC system along with defroster working normally?
- 05ja Before pulling in garage bay, at slow speed open entrance and exit door. Did interlock activate and throttle deactivate?
- 05ka Bring vehicle in garage, set parking brake, activate fast idle, and operate both doors through all door control positions, ok?
- 10aa Check for proper operation of exit door sensitive edge
- 10ba Check driver's seat & seat belt condition and assure all functions operate correctly
- 10ca Inspect condition of all driver's console, dash and saw tooth panels
- 10da Inspect condition and operation of all driver's controls (switches)
- 10ea Release parking brake, perform brake pump down. Did low air alarm activate and parking brake "pop" up @ 60 psi?
- 10fa check condition and covers of both brake and throttle pedals
- 10ga Check proper windshield wiper and washer operation.
- 10ha Check driver's shades for condition & operation
- 10ja Check steering wheel condition and blow horn
- 10ka Check steering column for condition and operation of up/down and back /forth positions
- 10la Check condition and security of fire extinguisher, safety triangles
- 10ma Push "push to test" on AMEREX display, did audio alarm sound & all LEDs light up? Push "Relay Reset" to return to normal operation
- 10mb Assure Amerex display "System Ok" led is illuminated
- 10md check that all Amerex dash components are present & in their original location, and are in good working order
- 10mf Check that all Amerex manual actuation switches/remote actuators are unobstructed by vehicle modifications or clutter
- 10mh check that Amerex tamper indicators, lock wire seal, pull pins and "In Case Of Fire" instruction label are intact
- 10mj Check that Amerex maintenance tag/certificate is in place. Record date of inspections and initial of inspector
- 10na Lubricate driver's seat track, brake & throttle pedals
- 15aa Check condition and security of interior mirrors to include exit door mirror
- 15ba With entrance door open check "stop request" signal and sign for proper operation
- 15ca Check condition & operation of (3) w/c jump seats (release handle, locking in both the up/down positions)
- 15da Check condition & operation of the (8) tie down straps
- 15ea Check condition & operation passenger restraints (2)
- 15fa Check condition & operation of the Advance Restraint Module (A.R.M.), lubricate slide lightly
- 15ga Check condition and security of all passenger seats
- 15ha Check condition and security of all stanchions
- 15ia Check wall panel, roof, flooring and standee line condition
- 15ja Check condition, operation of roof hatches
- 15ka Check interior dome lights for proper operation
- 20ca Activate destination signs and exterior lights test modes
- 20da Inspect exterior lights, destination signs for proper operations
- 20fa Inspect all exterior panels and glass for any damage

- 20ga Check windshield wiper arms and exterior mirrors for security
- 20ha Drain air tanks, drain wet tank completely first, then the rest. Check for pressure and moisture.
- 20ia Check all engine, transmission, surge tank, hydraulic system for proper fluid levels
- 20ja Pull in bay, set parking brake and deploy w/c ramp
- 25aa Dump air to entrance door, shut engine down
- 25ba Open w/c rising floor asm. and vacuum drive platform
- 25ca Using penetrating oil clean and then lubricate lightly (using 30w motor oil) drive chain and counter balance asm.
- 25da Re-install rising floor, start engine, supply air to entrance door and stow w/c ramp. Shut engine down
- 25ea Prepare lift(s) to raise bus
- 25fa Release parking brake, raise vehicle. Assure that safety locks are engaged on vehicle lift(s)
- 25ga Replace primary fuel filter. Pre-fill before installing.
- 25ha Supply vehicle air system with shop air
- 25hn Replace hydraulic filter
- 25ja Visually inspect entire undercarriage front to back for any damage, leaks of any kind, all hose and wire condition
- 25ka Check Spinner II oil filter, for leaks, damage
- 25la Check engine, all fluid lines for leaks, chaffing, bad clamps
- 25ma Check radiator and all coolant lines for leaks, chaffing, bad clamps
- 25na Inspect condition of engine intake system
- 30aa Check general condition of bottom half of engine compartment
- 30am Check all Amerex nozzle blow-off caps are intact, nozzles outlets must be unobstructed to hazard its protecting
- 30ap check all Amerex control heads, actuators, hoses, wiring and detectors secure and in good working order
- 30at Check all Amerex wiring connections are sealed from weather and good condition
- 30ba Check all steering components. tie rod ends, u-joints, box, and pitman arm
- 30ca Check general condition of front axle, fasteners, mud flaps, leveling valves
- 30da Clean and grease fittings, driveshaft (3), camshaft bushings (4), slack adjusters (4), tie rod ends (2), kingpins\* (4)
- 30ea Clean and grease fittings continue: intermediate shaft (2) drag link (2)
- 30fa Inspect all brake lining condition, wear
- 30ga Check all inner wheel seals, outer gaskets for signs of leakage
- 35ia Check coolant DCA level and record \_\_\_\_\_ Add DCA if needed  
Start engine and run for a few minutes, shut down. Check engine and hydraulic fluid levels make necessary adjustments
- 35jn
- 35ka Check a/c compressor oil for color and proper level (proper level of oil 1/4 to 1/2 of site glass)
- 35la Visually inspect clutch armature for wear & overheating caused by slippage  
Check Amerex agent cylinder gauge, is it in "green pie zone"? Assure all labels are intact, clean and legible and are secure
- 35ma
- 35mm Check all Amerex cylinder, wiring, hose, actuators are secure and good working order
- 35na check a/c refrigerant charge (ball floating in receiver tank sight glass)
- 35oa Check a/c dry eye in receiver tank & liquid line site glass. Record color here \_\_\_\_\_
- 35pa Inspect a/c condenser for damage and cleanliness
- 40aa Park bus clean area

Twelve (12) thousand mile B-inspection

This inspection will incorporate a complete A-inspection plus the following:

- 25hn Change hydraulic fluid (refill with 15w-40 motor oil)

- 25jg Replace secondary fuel filter DO NOT PRE-FILL
- 25jn Change coolant filter
- 25nm Check charge air cooler and piping, for security, damage
- 30hn Clean rear axle breather
- 35bn Check rear axle ride height s/b 11 1/2" (+/- 1/8")
- 35ig Check exhaust bellows for leaks and alignment
- 35in Check exhaust system for leaks, loose fasteners and straps
- 35it Replace secondary fuel filter DO NOT PRE-FILL
- 35lm Check jump start plug and cables for cracks, chafing, damage and security. Verify boot is in place
- 35on Check heat detector wires for chaffing, kinks, or cuts. Perform cable test
- 35qm replace trim unit in fare box

#### Twenty-four (24) thousand mile annual C-inspection

This inspection will incorporate a complete A & B inspection plus the following:

- 00ai Clean A/C control panel & sensor using canned air (unit not running)
- 00ng check electric radiator fans protective caps and retain rings
- 00nn inspect radiator fan blades for cleanliness and damage
- 00nt check radiator fan power cable ends for corrosion
- 10nn inspect all i/o panels (four) for chaffing wires, loose connection
- 15im Check egress windows for proper operation. lube release bolts and cable
- 25gn check air dryer security
- 30cg Check front shocks and bushings for wear and leaks
- 30cn Check front axle, external bump stops and rings for wear or damage
- 30ct Check front axle for proper ride height s/b 9" (+/- 1/4")
- 30cw Check front axle for loose or damaged mounting parts
- 30en Grease output shaft(1) (use hand gun only) use #2 grease
- 30in Check driveline fastener torque s/b 115-135 ft. lb.
- 35bd Check rear shocks and bushings for wear and leaks
- 35bg Check rear axle for loose or damaged mounting parts
- 35en Check hydraulic pump mounting bolts
- 35gg Check belt tensioners for wear and security
- 35lg check and adjust clutch air gap and check for warp pulley
- 35pn check wheel stud torque s/b 450 to 500 ft. lbs.

#### Forty-Eight (48) thousand mile D-inspection

This inspection will incorporate a complete A, B & C inspection plus the following:

- 00ad remove rear settee fasteners, but leave settee in place
- 00an raise vehicle, completely steam clean under body.
- 00at lower vehicle
- 00cg remove settee and from inside bus steam clean rear of engine area
- 25gg replace air dryer cartridge

- 25jt Change Skinner II kit #73642
- 25jw Change transmission main & lube filters
- 35gj inspect engine vibration damper
- 35hn replace engine air filter
- 35it replace crankcase breather element
- 35iv inspect rear engine area for leaks, lines chaffing, any damaged parts
- 35iw re-install settee and fasteners

Ninety-Six (96) thousand mile E-inspection

This inspection will incorporate a complete A, B, C & D inspection plus the following:

- 25je Change transmission fluid, take sample. **DO NOT LEAVE TRANSMISSION WITHOUT OIL**
- 25jj Replace DEF filter
- 30gm Replace front wheel bearing oil
- 30ht Change rear axle fluid
- 35id Replaced DPF filter
- 35iq Set overhead

One Hundred and Ninety-Two (192) thousand mile F-inspection

This inspection will incorporate a complete A, B, C, D & E inspection plus the following:

- 35jd Replace air compressor
- 35je Replace air compressor discharge line

**Safety Defect** – Safety cannot be compromised. The vehicle cannot be placed into service until repairs are completed.

**Mechanical Defect** – A defect that will gradually get worse and increase cost. The vehicle cannot be placed into service until repairs are completed, except for emergencies.

**Elective Mechanical Defect** – An elective mechanical defect is a defect that does not compromise safety, but can if operated beyond a pre-determined mileage. This defect can be scheduled on or before the next preventive maintenance inspection depending on mileage.

**Elective or Cosmetic Defect** – The defect will not compromise safety and will not cause further damage or cost as it is an aesthetic defect. This vehicle can be scheduled for an off-peak time in the future or at the next preventive maintenance inspection to be repaired.

**CITY OF GAINESVILLE  
REGIONAL TRANSIT SYSTEM  
Vehicle Condition Report**

**PRETRIP AND IN-SERVICE BUS INSPECTION**

Start Hub Reading: \_\_\_\_\_ End Hub Reading: \_\_\_\_\_

Date: \_\_\_\_\_ #1 Driver's Name: \_\_\_\_\_ Driver #: \_\_\_\_\_  Bus Okay Route: \_\_\_\_\_ Run: \_\_\_\_\_  
 #2 Driver's Name: \_\_\_\_\_ Driver #: \_\_\_\_\_  Bus Okay Route: \_\_\_\_\_ Run: \_\_\_\_\_  
 Bus #: \_\_\_\_\_ #3 Driver's Name: \_\_\_\_\_ Driver #: \_\_\_\_\_  Bus Okay Route: \_\_\_\_\_ Run: \_\_\_\_\_

**NOTE: Law requires legible signature (no initials).**

**PRETRIP INSPECTION:** Before departing garage, review previous drivers' maintenance copy found on bus. Cycle wheelchair lift/kneeler. Contact radio dispatch if any noted defects from previous driver have not been repaired. Upon relieving another driver, contact radio dispatch to resolve any outstanding or newly found DOT or "shaded block" defects.

**BUS RETURN INSPECTION:** Upon returning to garage, park bus in fuel lane and turn in defect report to dispatch.

Driver	#1	#2	#3	Check Defect
				<b>DOT DEFECTS</b>
				Air Brake Operation
				Air System Leaks
				Driver Seat/Belt
				Exhaust System
				Fluid Leaks
				Fire Extinguisher
				Horn
				Lights-Exterior
				Mirrors-In/Outside
				Rims/Lugs-Wheel Crack
				Suspension System
				Tires
				Triangles
				Windsh/Wipers/Washers
				<b>WHEEL CHAIR</b>
				Lift Operable? Yes No
				No Power
				Lower/Raise/Stow
				Barriers
				Securement Device (straps)
				<b>BRAKES</b>
				Slack
				Pulls Left and/or Right
				Grabs/Squeals/Spongy
				Unequal Front/Rear
				Won't Release
				Warning Signal
				<b>LIGHTS</b>
				Ceiling
				Steps - Front/Rear
				Tell/Tale Dash
				Stop Request
				Destin. Sign - Front/Rear

**Further Define Problem/Comments:**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

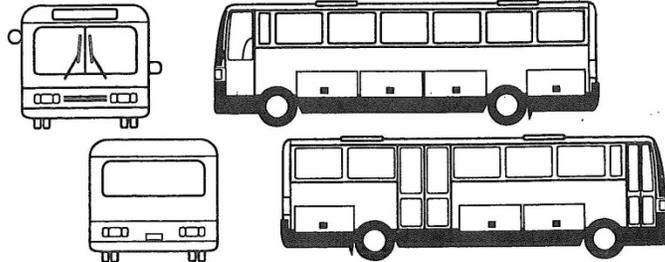
\_\_\_\_\_

\_\_\_\_\_

Driver	#1	#2	#3	Check Defect
				<b>TIRES</b>
				Low Air
				Cut/Damaged
				Cap Loose
				Worn
				<b>SUSPENSION</b>
				Bellows
				Shock
				Leans/Sways
				<b>MISCELLANEOUS</b>
				Registration Card
				License Card
				Safety Pouch
				Bio Kit
				First Aid Kit
				<b>ENGINE</b>
				Lacks Power
				Hot
				No Start/No Stop
				Races/Stalls
				Oil/Water Leak
				Exhaust Smoke
				Noisy
				No Fast Idle
				<b>TRANSMISSION</b>
				Slips/Jumps Out of Gear
				Rough Shift
				No Shift/Reverse
				Fluid Leak

Driver	#1	#2	#3	Check Defect
				<b>STEERING</b>
				Hard/Loose/Pulls
				Shimmies
				Tilt Wheel
				<b>A/C AND HEATING</b>
				No A/C or Heat
				Too Warm/Cool
				No Defroster
				A/C On and Off
				Noisy
				<b>BODY</b>
				Damage (circle below)
				Steps
				Windows
				Bumpers
				Compartment Doors
				Roof Hatch - Front/Rear
				Passenger Seats
				Bike Rack
				Advertising - In/Outside
				<b>DOORS</b>
				Fast/Slow - Front/Rear
				Damaged - Front/Rear
				Sensitive Edge
				<b>ELECTRONIC</b>
				Radio Receiver/Transmit
				Farebox Power/Jam/Date
				Destin. Sign-Front/Side
				Passenger Chime

**BODY DAMAGE COMMENTS (mark damage to body):**



## **GENERAL NOTES ABOUT THE DAILY VEHICLE INSPECTION CHECKLIST**

**An important part of preventive maintenance is the establishment of strong communication ties between drivers, mechanics / repair garages, and management. An easy way to ensure and document this communication link is by way of the drivers Vehicle Condition Report Inspection (VCR) Checklist.**

**The Vehicle Service Attendant (VSA) shall take possession of bus and remove the VCR, found on driver's seat and drop it in the "black box" designated for completed reports in Service Lanes one (1), two (2) and three (3) located on the south side of the RIH. The 2nd and 3rd shift supervisors are responsible for collecting all VCRs. When a VCR indicates a defect maintenance supervisor on duty shall create a work order and assign the proper maintenance personnel to make necessary repair(s) of any driver noted defects.**

**The sample checklist provided on page 35 meets or exceeds the minimum requirements in Rule 14.90.006 (7) (a) Florida Administrative Code. All collected VCR must be kept on file for a period of fourteen (14) days. When a VCR has a reported defect a copy of the work order created to make the repairs shall be attached and filed along with the other VCRs for a period of 14 days.**

### **Road Calls**

Monitoring road calls is arguably the single most important indicator of an agency's overall performance. Road calls are categorized as listed below.

#### **Major Mechanical**

A failure of some mechanical element of the revenue vehicle that prevents the vehicle from completing a scheduled revenue trip or from starting the next scheduled revenue trip because actual movement is limited or because of safety concerns.

#### **Other Mechanical**

A failure of some other mechanical element of the revenue vehicle that, because of local agency policy, prevents the revenue vehicle from completing a scheduled revenue trip or from starting the next scheduled revenue trip even though the vehicle is physically able to continue in revenue service.

Classifying failures into specific bus subsystems allows Maintenance to identify trends, determines the underlying cause of the problem, and can help in making modifications to the Preventive Maintenance Program as needed to minimize failures. Road call reports will include types of failures and mean distance between failures.

Prior arrangements with a towing service that is competent in recovering vehicles the size and type operated by the transit agency will be made. After a determination is made of

the status of a downed vehicle the towing service will be contacted in a timely manner to have the vehicle moved.

## **In-House Maintenance**

Each individual performing bus safety inspections shall be qualified as follows:

- a) Can identify defective components.
- b) Is knowledgeable of and has mastered the methods, procedures, tools, and equipment used when performing an inspection.
- c) Has at least one year of training and/or experience as a mechanic or inspector in vehicle maintenance program and has sufficient general knowledge of buses owned and operated by the bus transit system to recognize deficiencies or mechanical defects.

## **Outsourced Services**

Outsourcing will be utilized for services that require specialized tools and/or equipment such as automatic transmission rebuild, radiator repair, upholstery and windshield/glass replacement. At initial delegation of services, contractor is contacted and provided with all pertinent information. Upon return of all outsourced services RTS staff inspects work to ensure the quality of the service is acceptable. All outsourced materials and labor are recorded in the Fleet Management software applicable to the appropriate asset.

## **Contractor/Lessee Oversight Procedures**

When a contractor/lessee is responsible for maintaining RTS the vehicles, the contractor must follow the RTS maintenance plan. The maintenance activities of the contractor will be monitored by performing annual vehicle inspections (quality assurance checks) and preventative maintenance audits on approximately 25% of the leased vehicles. (See example of inspection form below.) Periodic inspections of the contractor's facility by a designated representative are performed to ensure the conditions are adequate to meet their contractual obligations.

# Vehicle Inspection Form

Vehicle Identification:

Vehicle Number: \_\_\_\_\_  
 Vehicle Type:  Type I (over 22' including bumpers)  
                    Type II (22' or less including bumpers)  
 License Tag Number: \_\_\_\_\_ Mileage: \_\_\_\_\_  
 Registration:  Yes  No  Expired Insurance Card:  Yes  No  Expired

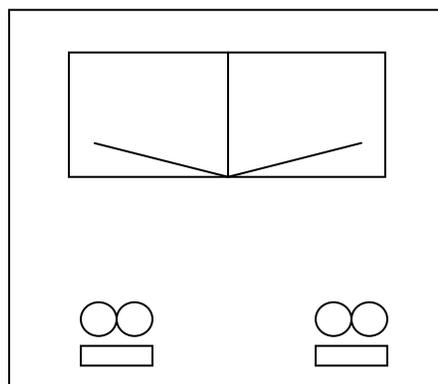
Current Maintenance:

Undergoing Maintenance?  Yes  No  
 Maintenance Items: \_\_\_\_\_

## Vehicle Exterior Inspection

Front & Driver Side Vehicle Inspection:

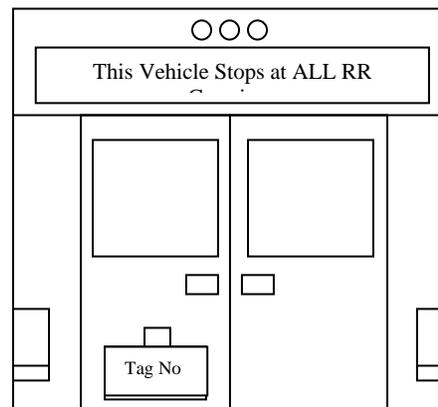
Park Lights:  Works  Does Not Work  
 Dim Lights:  Works  Does Not Work  
 Bright Headlights:  Works  Does Not Work  
 L/R Turn Signals:  Works  Does Not Work  
 Four Way Flashers:  Works  Does Not Work  
 Wiper Blades:  Works  Does Not Work  
 Windshields:  Cracks  No Cracks  
 Windows:  Cracks  No Cracks  
 Horn:  Works  Does Not Work  
 Emergency Brakes:  Works  Does Not Work



Exterior  
 Damage: \_\_\_\_\_

Rear Vehicle Inspection:

Tail Lights:  Works  Does Not Work  
 Brake Lights:  Works  Does Not Work  
 Back-Up Lights:  Works  Does Not Work  
 (white lights)  
 Reverse Warning Alarm:  Works  Does Not Work  
 L/R Turn Signals:  Works  Does Not Work  
 Four Way Flashers:  Works  Does Not Work  
 Tag Lights:  Works  Does Not Work  
 Windows:  Cracks  No Cracks  
 Running Lights:  Works  Does Not Work



Tire Tread Depth & Wear: (Measure Tread Only if Tire Appears Unsafe)  
 Left Front Tread Depth: (4/32" Min) \_\_\_\_\_ Right Front Tread Depth: (4/32" Min) \_\_\_\_\_  
 Left Rear Tread Depth: (2/32" Min) \_\_\_\_\_ Right Rear Tread Depth: (2/32" Min) \_\_\_\_\_



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## **Contractor/Lessee Maintenance Plan**

The function of the maintenance plan is to provide a consistent systematic program to properly maintain and service vehicles to meet or exceed the manufacturer's recommended maintenance schedule. MV Transportation's vehicle maintenance program will ensure that all buses operated, and all parts and accessories on such buses, including those specified in Rule 14-90.007, F.A.C., and any additional parts and accessories which may affect safety of operation, including frame and frame assemblies, suspension systems, axles and attaching parts, wheels and rims, and steering systems, are regularly and systematically inspected, maintained, and lubricated to standards that meet or exceed the bus manufacturer's recommendations and requirements. The Maintenance Manager is responsible for ensuring that all vehicles operated are regularly and systematically inspected, maintained, and lubricated according to agency's Maintenance Plan and Preventative Maintenance Guidelines.

### **1.1 Daily Vehicle Inspections (DVI)**

Drivers are required to perform daily vehicle inspections prior to operating the assigned vehicle, during routes, and after all route schedules are completed. The pre-trip inspection includes an inspection of the following parts and devices to ascertain that they are in safe condition and in good working order:

- Service brakes
- Parking brakes
- Tires and wheels
- Steering
- Horn
- Lighting devices
- Windshield wipers
- Rear vision mirrors
- Passenger doors
- Exhaust system
- Equipment for transporting wheelchairs
- Safety, security, and emergency equipment

During the scheduled trips and at the end of the day, the operator will note any additional findings and submit the daily vehicle inspection forms. The process and form/s to be utilized for daily vehicle inspections is included in agency's preventative maintenance guidelines. The daily vehicle inspection forms must be complete with the operator's signature and a check in each box to document that the items are "OK" or a defect is noted in the comments section. If the driver finds any mechanical or other problems that could compromise the safety of the vehicle at any point, the drivers will immediately

inform the Maintenance Manager and the vehicle will not be scheduled for service until repaired. Failure to report deficiencies by drivers will lead to disciplinary action. The Maintenance Manager will review the daily inspections and document the corrective actions taken as a result of any deficiencies identified by the operator. The Maintenance Manager will also periodically conduct vehicle inspections behind the drivers who have completed the vehicle inspections to ensure that the daily vehicle inspections are adequately performed. Once defects are noted they will be prioritized and sorted into categories for repairs. Daily inspection records will be retained for a minimum of two weeks. Once a defect is noted on the inspection form and repaired, the documentation will be attached to the work/repair order and filed in the maintenance files.

## **1.2 Preventive Maintenance**

A preventative maintenance schedule is implemented to inspect for safety hazards and to maintain vehicles in a manner conforming to safety regulations. MV Transportation will perform scheduled preventive maintenance on all vehicles at every 3,000-mile interval following the sequence “A”-“A”-“A”-“B”-“A”-“A”-“A”-“C”-“A”-“A”-“A”-“D”, or every 90days when the vehicle doesn’t reach 3,000 miles. As preventative maintenance inspections are scheduled by projected mileage, the agency will allow  $\pm 300$  mile deviations in mileage interval, so long as the actual mileage interval meets the manufacturer’s recommended maintenance schedule. Inspection A will be performed every 3,000 miles, inspection B will be performed every 12,000 miles, and inspection C will be performed every 24,000 miles on each vehicle. MV Transportation’s A inspection covers all sections required by Florida Rule 14-90 Safety Inspection. The first A inspection of the year will be marked as the required yearly Safety Inspection. When a vehicle is due for an inspection, it will be taken out of service until the inspection is completed. This allows a series of repairs to be carried out while minimizing costs and optimizing the number of operational vehicles. If a vehicle is “down” for an extended period of time due to unavoidable circumstances, preventative maintenance will not be scheduled. However, the annual inspection will be conducted on all vehicles regardless of “up/down” status and/or mileage accrued.

The Maintenance Manager will regularly perform Quality Control (QC)/Quality Assurance (QA) checks to ensure that the inspections and repairs, both in-house and contracted, are completed and documented properly. Each vehicle will have a written record documenting preventive maintenance, regular maintenance, inspections, lubrication and repairs performed. Such records will be maintained for at least five years and include, at a minimum, the following information:

Identification of the bus, the make, model, and license number or other means of positive identification and ownership

Date, mileage, description, and each type of inspection, maintenance, lubrication, or repair performed

If not owned by MV Transportation, the name of any person furnishing a bus

The name and address of any entity or contractor performing an inspection, maintenance, lubrication, or repair

For tracking purposes, a maintenance log will be kept containing vehicle ID, make and type of vehicle, year, model, special equipment, inspections, maintenance and lubrication intervals, and date or mileage when services are due.

### **1.3 Bus Safety Inspections**

Safety inspections are part of the maintenance inspections and are performed at least once every year on all buses operated by MV Transportation and contracted service providers. The Maintenance Manager is responsible for ensuring that each individual performing a bus safety inspection is qualified as follows:

Understands the requirements set forth in Rule 14-90 and can identify defective components.

Is knowledgeable of and has mastered the methods, procedures, tools, and equipment used when performing an inspection.

Has at least one year of training and/or experience as a mechanic or inspector in a vehicle maintenance program and has sufficient general knowledge of buses owned and operated by the bus transit system to recognize deficiencies or mechanical defects.

Each bus receiving a safety inspection shall be checked for compliance with the requirements for safety devices and equipment as referenced or specified by Rule 14-90. Specific operable equipment and devices as required by Rule 14-90 include the following as applicable to Type I and II buses:

- Horn
- Windshield wipers
- Mirrors
- Wiring and batteries
- Service and parking brakes
- Warning devices
- Directional signals
- Hazard warning signals
- Lighting systems and signaling devices
- Handrails and stanchions
- Standee line and warning
- Doors and brake interlock devices
- Step-wells and flooring
- Emergency exits
- Tires and wheels
- Suspension system
- Steering system
- Exhaust system
- Seat belts

Safety equipment  
Equipment for transporting wheelchairs  
Working speedometer

A safety inspection report will be prepared by the individual(s) performing the inspection and will include the following:

Identification of the individual(s) performing the inspection

Identification of the bus transit system operating the bus

The date of the inspection

Identification of the bus inspected

Identification of the equipment and devices inspected including the identification of equipment and devices found deficient or defective

Identification of corrective action(s) for any deficient or defective items found and date(s) of completion of corrective action(s)

Records of annual safety inspections and documentation of any required corrective actions will be retained for a minimum of five years for compliance review.

## **Cleaning**

During pre-trip inspections it is the duty of the operator to perform a walkthrough on the vehicle and ensure that any debris on the flooring or step wells that could result any falls or slips. Any unsafe conditions must be corrected before any scheduled trips.

The driver must report all graffiti/etchings, gum, spills, or any other issues in the interior that would warrant extra material and labor from normal clean-up, on their post-trip report.

It is the responsibility of the Fleet Manager to inspect the interior and exterior of the vehicles and determine if the cleaning is being performed to company standards.

## **Accidents**

All accidents are tracked by the frequency, type, and which party was at fault. An investigation will be performed and documented. In the case of an accident in which the mechanical condition of the bus comes into question, the Fleet Manager or designated employee will decide if the bus can be placed into service before repairs are made.

Accident Investigation Report

- Events are investigated and documented in a final report
- Description of investigation activities

- Identified causal factors
- Corrective actions
- Schedule of implementation of corrective actions

In the event of an accident the primary responsibility of all staff is to ensure the safety of the passengers. The driver will immediately report the time and location of the accident to the Supervisor/Dispatcher. Because accident situations are unpredictable, it is standard that procedures allow enough flexibility to accommodate for each condition.

## **Information Management**

The work order, also referred to as a repair order, is the backbone of any maintenance performance monitoring program. Information on all aspects of maintenance performance can be obtained from work orders. RTS maintenance utilizes fleet management software to enter work orders into a computerized management information system (MIS), which summarizes data and identifies recurring problems.

## **Material Handling**

RTS provides employees with instruction on safe handling, first aid treatment, emergency procedures, and proper clean up procedures of chemicals in the workplace. Also knowing the potential flammability, explosion, and reactivity of chemicals in the workplace are the rights of the employees under the Right-To-Know-Law.

## **Material Safety Data Sheets**

All chemicals, lubricants, cleaners etc., purchased must accompany a Material Safety Data Sheet. A MSDS binder will be maintained and made available to the employee upon request. The binder will have a cover sheet index for quick reference in case of an emergency.

When a chemical is taken out of inventory the MSDS sheet will be taken out of the binders and placed in a dead file. All MSDS sheets must be kept on file for thirty years.

When purchasing products for different functions careful consideration will be taken as to the toxicity and flammability of chemicals used. Environmentally friendly products will be taken into consideration when purchasing products. Some include:

- Propylene-glycol antifreeze
- Re-refined motor oil
- Retread tires
- Water-based part cleaner and brake cleaner
- Reconditioned batteries

## **Parts Inventory**

The potential effect on inventory include fleet size, fleet mix by vehicle type, number of different vehicle models, average annual miles per vehicle, and the average age of the fleet.

The higher the inventory turnover the more efficiently the inventory level is managed relative to the demand for usage.

Indicators to be considered in inventory management:

- Percent of items out of stock when requested.
- Number of open backorders.
- Vehicles out of service due to unavailability of parts.

## **Warranty**

The fleet management software contains an inventory management system that provides information to initiate warranty claims. The warranty, recovery, warranty records, and annual summaries of warranty claims are submitted, received and will be maintained by the transit agency.

Warranty repairs will be identified by maintaining a list of items from the manufacturer that are under warranty and when the warranty expires. When a component fails it can be checked against the list for time and/or mileage to determine if it is still under warranty. Documentation of warranty repairs, claims, and a recovery program will be kept on file to guarantee the cost of the defects under warranty is paid by the equipment manufacturer and not the agency. All warranty claims will be pursued until the claim is settled.

## **On Site Fueling**

RTS will keep on file:

- The storage tank fuel inventory including tank water level.
- Monthly leak detection results.
- Monthly maintenance visual examinations.
- A copy of all test data results. Tightness, pressure and integrity.
- Repair, operation and maintenance records.
- Certificate of Financial Responsibility