



South East Texas Regional Planning Commission

South East Texas Transit

Vehicle Maintenance Plan

(Updated February 15, 2023)

Background

This report describes the maintenance practices of the South East Texas Transit (SETT). The report contains a description and brief analysis of the maintenance program. It also includes a sampling of the actual forms utilized.

Purpose

The purpose of the SETT Maintenance Plan is to specify the goals and objectives of the Maintenance Program. The activities which are necessary for the achievement of these goals and objectives will be outlined and used as a guideline by which the SETRPC can effectively monitor performance and maintain a high quality maintenance program.

Goals and Objectives of SETT Maintenance Program

The primary goal of the maintenance program is to provide a cost-effective, systematic, interruption free pattern of transit operation. To accomplish this, SETT maintenance practices are centered on the following goals and objectives:

Goals:

1. Provide consist good service to meet public demand.
2. Provide safe, reliable, comfortable and clean vans.
3. Provide the maximum operational reliability.
4. Minimize road calls, equipment downtime and reduce costs.

Objectives:

1. Maintain equipment and facilities.
2. Maintain a high-quality maintenance program.
3. Replacement of certain parts and components at predetermined times.
4. Adhere to strict preventative maintenance schedule periodic inspections (see Vehicle Preventative Maintenance Policy & Interval Schedule)

Warranty Recovery

Before performing maintenance of purchasing parts, SETT will seek recovery from any warranty in effect.

SETT Maintenance and Service Inspections

1. Daily Servicing and Inspection (see attached Pre-Trip Inspection Form)
 - a. Under hood
 - b. Exterior
 - c. Interior
 - d. Safety Equipment
 - e. Mileage
 - f. Wheelchair Lift & Securement

2. Quarterly Inspections (see Quarterly Wheelchair Lift Inspection Schedule)
 - a. Wheelchair Lift
 - b. Wheelchair lubrication chart

Scheduled Mechanical / Maintenance Inspections

The most important level of SETT's preventative maintenance program involves scheduled mechanical maintenance inspections. These inspections are scheduled and performed routinely, based on mileage, fuel and oil consumption, and engine oil analysis. The following items are checked during scheduled inspections:

- a. Differential and transmission
- b. Brake adjustment and lubrication
- c. Oil and filter change
- d. Complete review of all systems and subsystems of the vehicle
- e. A/C and heating systems are scheduled for routine checks on a seasonal basis

Proper Use of Equipment

Drivers will receive information and training regarding the proper use of vehicles and equipment i.e., lifts, two-way, etc.

Record Keeping

SETRPC will inspect records of maintenance performed quarterly and keep a vehicle mileage report monthly.

The Maintenance Supervisor will keep record of tools purchased and provide maintenance training to drivers quarterly.

Wheelchair Lift Maintenance Policy

It is the intent of South East Texas Transit by way of this policy, to assure that our wheelchair lifts and ramps are maintained to the specifications prescribed by the device manufacturer. The maintenance of wheelchair loading apparatus will be performed by a combination of bus operators, mechanics and certified manufacturer technicians, depending on the level of service required. Services such as daily safety checks shall be performed by the bus operator and documented on the daily vehicle check sheet. All other maintenance and inspection shall be done by a qualified mechanic except those services where the manufacturer requires the service to be performed by a certified or authorized technician.

Services within this schedule may be performed by the bus operator.

Quarterly Wheelchair Lift Inspections Schedule

Overall condition	Listen for abnormal noises as lift operates: (e.g., grinding or binding noises)
Control Pendant	Verify that control pendant is undamaged and cable connector is tight.
Threshold warning system	Verify that system properly detects objects in threshold area and actuates the audible alarm.
Hydraulic fluids	Check for obvious hydraulic leaks
Inspect lift for wear, damage or any abnormal condition	Correct as needed
Inspect for rattles	Correct as needed
Inspect handrail components for wear or damage, and for proper operation	Replace damaged parts
Make sure lift operates smoothly	Realign towers and vertical arms. Lubricate or correct as needed.
Hydraulic hoses, fittings and connections for wear or leaks	Re-secure, replace or correct as needed.
Decals and Anti-skid	Replace decals if worn, missing or illegible. Replace anti-skid if worn or missing.
Mounting	Check to see that the lift is securely anchored to the vehicle and there are no loose bolts, broken welds or stress fractures.

Purpose of South East Texas Transit
Vehicle Preventative Maintenance Policy

1. Ensure that the fleet is protected and maintained so that it can reach maximum useful life
2. Maintain vehicles in safe operating condition
3. Ensure each vehicle is operating at peak efficiency
4. Maximize vehicle life
5. Minimize loss of accessibility due to equipment failure
6. Meet or exceed manufacturers maintenance requirements
7. Maintain vehicle exterior and interior appearance
8. Maintain a system of permanent vehicle maintenance records
9. Adhere to a strict preventative maintenance schedule
10. Administer an aggressive equipment warranty recovery program
11. Provide maintenance in ways that are cost-effective

SETT subscribes to a philosophy of continuous improvement. The Vehicle Preventative Maintenance Policy is subject to constant review and improvement.

Preventative Maintenance Inspection (PMIs)

PMI mileage intervals are based on original equipment manufacturer minimum requirements. All reports associated with the vehicles will be maintained by the subcontractors (see attached Vehicle Preventative Maintenance Inspections Form).

The following are the PMI Intervals Schedule:

2 months or every 6,000 miles

6 months or every 8,000 – 12,000 miles

12 months or every 24,000 – 36,000 miles

Interval 2,6, 12 months:

Tire tread and pressure, Wheel rims for cracks, Lug nuts for tightness, Oil and water leaks, Belts condition, Brakes, including master cylinder fluid, Exhaust system, Seatbelts, Passenger Seats, Change engine oil, Change oil filter, Spark plug wires, Belts and hoses, Rear axle differential oil, Wheelchair securement & restraint systems, Cycle wheelchair lift, Windshield wipers and fluid, All interior and exterior mirrors, Headlight (high and low beam), Back-up lights and alarm, Tail lights, Stop lights, License plate light and plate taillight, Turn signals, Hazard warning lights, Radio, Farebox

Interval 6, 12 months:

Transmission fluid level, Batteries, Antifreeze and condition, Exterior for body damage and condition, Air filter, Shock absorbers and springs, Wheel bearings, Fuel tank condition, Alternative mountings for tightness, A/C system, Rotate tires

Interval 12 months:

Detailed frame and body checks, including bolts/nuts, rivets and welds, Pull all wheels, measure and inspect brake drums, rotors, brake pads, and calipers, Change rear axle differential fluid, Change fuel filter, Change air filter, Clean engine and engine compartment as necessary

South East Texas Transit – PMI Form

2 Months or Every 6,000 miles
6 Months or Every 8,000 - 12,000 miles
12 Months or Every 24,000 - 36,000 miles

DATE _____

Mileage _____

VEHICLE NUMBER _____		LIC PLATE NUMBER _____			INTERVAL _____	Comments
Interval		OK	N/Attn	Serviced		
2,6,12	Tire tread and pressure					
2,6,12	Wheel rims for cracks					
2,6,12	Lug nuts for tightness					
2,6,12	Oil and water leaks					
2,6,12	Belts condition					
2,6,12	Brakes, including master cylinder fluid					
2,6,12	Exhaust system					
2,6,12	Seatbelts					
2,6,12	Passenger Seats					
2,6,12	Change engine oil					
2,6,12	Change oil filter					
2,6,12	Spark plug wires					
2,6,12	Belts and hoses					
2,6,12	Rear axle differential oil					
2,6,12	Wheelchair securement & restraint systems					
2,6,12	Cycle wheelchair lift					
2,6,12	Windshield wipers and fluid					
2,6,12	All interior and exterior mirrors					
2,6,12	Headlight (high and low beam)					
2,6,12	Back-up lights and alarm					
2,6,12	Taillights					
2,6,12	Stop lights					
2,6,12	License plate light and plate taillight					
2,6,12	Turn signals					
2,6,12	Hazard warning lights					
2,6,12	Radio					
2,6,12	Fare box					
Interval						
6,12	Transmission fluid level					
6,12	Batteries					
6,12	Antifreeze and condition					
6,12	Exterior for body damage and condition					
6,12	Air filter					
6,12	Shock absorbers and springs					
6,12	Wheel bearings					
6,12	Fuel tank condition					
6,12	Alternative mountings for tightness					
6,12	A/C system					
6,12	Rotate tires					
Interval						
12	Detailed frame and body checks, including bolts/nuts,					
12	rivets and welds					
12	Pull all wheels, measure and inspect brake drums,					
12	rotors, brake pads, and calipers					
12	Change rear axle differential fluid					
12	Change fuel filter					
12	Change air filter					
12	Clean engine and engine compartment as necessary					
Please List Other Maintenance, As Needed						

South East Texas Transit Pre-Trip Vehicle Inspection Form

Driver: _____

Date _____

Vehicle # _____

Odometer Reading _____

1 ENGINE COMPARTMENT

Oil level	___ OK	___ N/Attn.	Coolant level	___ OK	___ N/Attn.
Power steering fluid	___ OK	___ N/Attn.	Brake fluid	___ OK	___ N/Attn.
Battery fluid	___ OK	___ N/Attn.	Transmission fluid	___ OK	___ N/Attn.
Windshield washer fluid	___ OK	___ N/Attn.	Fan belts	___ OK	___ N/Attn.
Radiator hoses	___ OK	___ N/Attn.	Power steering fluid	___ OK	___ N/Attn.
Air conditioning hose	___ OK	___ N/Attn.	Wiring insulation	___ OK	___ N/Attn.

2 DRIVER'S AREA - ENGINE RUNNING

Unusual engine noise	___ OK	___ N/Attn.	Instrument gauges	___ OK	___ N/Attn.
Steering wheel "play"	___ OK	___ N/Attn.	Accelerator	___ OK	___ N/Attn.
Shift lever	___ OK	___ N/Attn.	Horn	___ OK	___ N/Attn.
Windshield wiper/washer	___ OK	___ N/Attn.	Light switches	___ OK	___ N/Attn.
Air conditioning/Heater	___ OK	___ N/Attn.	Emergency equipment -	___ OK	___ N/Attn.
Front	___ OK	___ N/Attn.	spare fuses, first aid kit, fire	___ OK	___ N/Attn.
Rear	___ OK	___ N/Attn.	extinguisher, reflective	___ OK	___ N/Attn.
Fire suppression/CNG detection test	___ OK	___ N/Attn.	triangles	___ OK	___ N/Attn.

3 LIGHTS - OPERATION AND CLEANING

Low beam	___ OK	___ N/Attn.	Dome/Courtesy	___ OK	___ N/Attn.
High beam	___ OK	___ N/Attn.	Parking/Clearance lights	___ OK	___ N/Attn.
Front turn signal	___ OK	___ N/Attn.	Brake Lights	___ OK	___ N/Attn.
Rear turn signal	___ OK	___ N/Attn.	Passenger door	___ OK	___ N/Attn.
Four-way flashers	___ OK	___ N/Attn.	Back up lights	___ OK	___ N/Attn.
Instrument panel	___ OK	___ N/Attn.	License plate	___ OK	___ N/Attn.

4 GENERAL WALK AROUND

Overall body condition	___ OK	___ N/Attn.	Cleanliness - inside/outside	___ OK	___ N/Attn.
Windshield clean	___ OK	___ N/Attn.	Rear wheels/lug nuts	___ OK	___ N/Attn.
Leaks - oil, water, fuel	___ OK	___ N/Attn.	Rear tires - proper pressure	___ OK	___ N/Attn.
Rear view mirrors	___ OK	___ N/Attn.	Front tires/lug nuts	___ OK	___ N/Attn.
Exhaust system - no leaks	___ OK	___ N/Attn.	Front tires - proper pressure	___ OK	___ N/Attn.

5 BRAKES AND SUSPENSION

Parking brake	___ OK	___ N/Attn.	Springs - front/rear	___ OK	___ N/Attn.
Service brake - leaks, unequal pulling, needs adjustment	___ OK	___ N/Attn.	Shocks - front/rear	___ OK	___ N/Attn.
			Front end alignment	___ OK	___ N/Attn.

6 PASSENGER AREA

Entry steps secure	___ OK	___ N/Attn.	Handrails secure	___ OK	___ N/Attn.
Seats secure	___ OK	___ N/Attn.	Seatbelts	___ OK	___ N/Attn.
Emergency exits	___ OK	___ N/Attn.	Roof hatches	___ OK	___ N/Attn.

7 WHEELCHAIR LIFT

Access door	___ OK	___ N/Attn.	Lift operation smooth	___ OK	___ N/Attn.
Hydraulic fluid leaks	___ OK	___ N/Attn.	Safety straps	___ OK	___ N/Attn.
Electrical controls	___ OK	___ N/Attn.	Manual controls	___ OK	___ N/Attn.

* N/Attn - Needs Attention

South East Texas Transit Post-Trip Vehicle Inspection Form

Driver: _____

Date _____

Vehicle # _____

Odometer Reading _____

1 DRIVER'S AREA - ENGINE RUNNING

Unusual engine noise	___ OK	___ N/Attn.	Instrument gauges	___ OK	___ N/Attn.
Steering wheel "play"	___ OK	___ N/Attn.	Accelerator	___ OK	___ N/Attn.
Shift lever	___ OK	___ N/Attn.	Horn	___ OK	___ N/Attn.
Windshield wiper/washer	___ OK	___ N/Attn.	Light switches	___ OK	___ N/Attn.
Air conditioning/Heater	___ OK	___ N/Attn.	Emergency equipment -	___ OK	___ N/Attn.
Front	___ OK	___ N/Attn.	spare fuses, first aid kit, fire		
Rear	___ OK	___ N/Attn.	extinguisher, reflective		
Battery/Charging System	___ OK	___ N/Attn.	triangles		

2 LIGHTS - OPERATION AND CLEANING

Low beam	___ OK	___ N/Attn.	Dome/Courtesy	___ OK	___ N/Attn.
High beam	___ OK	___ N/Attn.	Parking/Clearance lights	___ OK	___ N/Attn.
Front turn signal	___ OK	___ N/Attn.	Brake Lights	___ OK	___ N/Attn.
Rear turn signal	___ OK	___ N/Attn.	Passenger door	___ OK	___ N/Attn.
Four-way flashers	___ OK	___ N/Attn.	Back up lights	___ OK	___ N/Attn.
Instrument panel	___ OK	___ N/Attn.	License plate	___ OK	___ N/Attn.

3 GENERAL WALK AROUND

Overall body condition	___ OK	___ N/Attn.	Cleanliness - inside/outside	___ OK	___ N/Attn.
Windshield clean	___ OK	___ N/Attn.	Rear wheels/lug nuts	___ OK	___ N/Attn.
Leaks - oil, water, fuel	___ OK	___ N/Attn.	Rear tires - proper pressure	___ OK	___ N/Attn.
Rear view mirrors	___ OK	___ N/Attn.	Front tires/lug nuts	___ OK	___ N/Attn.
Exhaust system - no leaks	___ OK	___ N/Attn.	Front tires - proper pressure	___ OK	___ N/Attn.

4 BRAKES AND SUSPENSION

Parking brake	___ OK	___ N/Attn.	Springs - front/rear	___ OK	___ N/Attn.
Front end alignment	___ OK	___ N/Attn.	Shocks - front/rear	___ OK	___ N/Attn.
Service brake - leaks, unequal pulling, needs adjustment	___ OK	___ N/Attn.			

5 PASSENGER AREA

Entry steps secure	___ OK	___ N/Attn.	Handrails secure	___ OK	___ N/Attn.
Seats secure	___ OK	___ N/Attn.	Seatbelts	___ OK	___ N/Attn.
Emergency exits	___ OK	___ N/Attn.	Roof hatches	___ OK	___ N/Attn.

6 WHEELCHAIR LIFT

Access door	___ OK	___ N/Attn.	Lift operation smooth	___ OK	___ N/Attn.
Hydraulic fluid leaks	___ OK	___ N/Attn.	Safety straps	___ OK	___ N/Attn.
Electrical controls	___ OK	___ N/Attn.	Manual controls	___ OK	___ N/Attn.

7 ADDITIONAL COMMENTS

Reviewed by: _____

Date: _____

* N/Attn - Needs Attention