

**Stark Area Regional Transit Authority  
Canton, Ohio**

# **Connecting TAM To Business Practices**

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Grants Manager/ Asset Management Coordinator



- **Tier II**
- **34 fixed routes**
- **County wide Proline (Paratransit) services.**
- **Service area - 576.2 square miles**
- **Population 376,000**
- **2.4M 2018 Passenger Trips**
- **1 Administrative/Maintenance Facility/Bus Garage**
- **4 Transit Stations**
- **46 Fixed Route, Diesel, CNG and Hydrogen Buses**
- **51 Proline (Paratransit), Diesel, CNG Buses**
- **14 Support Vehicles**
- **1 Diesel Fueling Station**
- **2 CNG Fueling Stations (1 Public Station)**
- **1 Hydrogen Fueling Station**
- **6 Subrecipients – Separate Group TAM Plan**



# **SARTA's Asset Management System**

SARTA uses Trapeze EAM (Maintenance) and Great Plains (Finance) for Asset Management information and FTA Workbook for Small Providers.

## **TAM**

COO Accountable Executive

Maintenance Supervisor

Grants Manager/Asset Management Coordinator

# Organizational Culture

Resistance to change – Buy-In... It starts at the top!

*CEO*

*COO*

*Maintenance*

*Finance*

If what was done in the past was working why change it!

New mantra - *Change in culture to reflect  
greater accountability through an inclusive performance measurement  
process.*





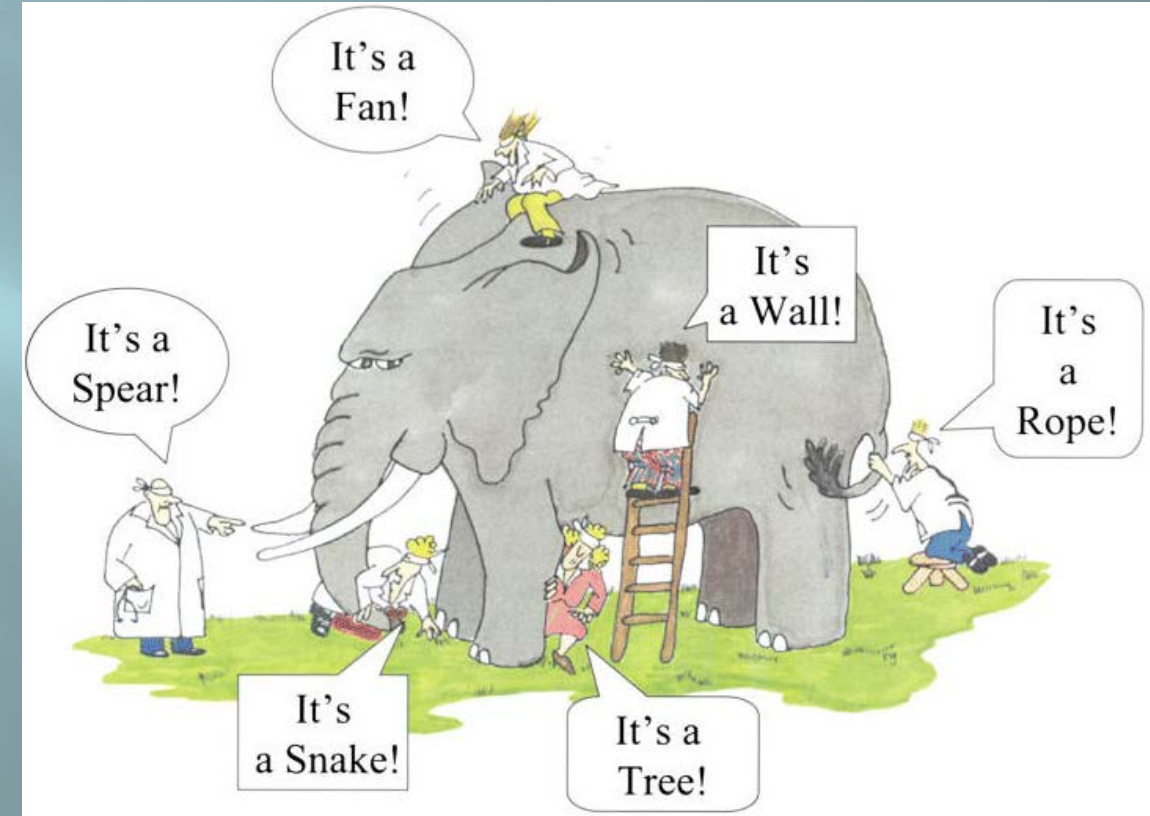
# What Once Was...

Departments working in silos...

Needing reliable data...



*Questioning-*  
*When will we replace...*  
*When can we repair...*  
*We are doing what...*  
*Do we have funding for...*



# Is now... *Forward* Thinking – Cross Agency Collaboration

## Organizational Vision and Performance Planning

*TAM is a day-to-day process – Everyone is involved - TAMbassadors*

*Inventory - Comprehensive Ratings*

*Maintenance – Work Orders/Performance Measures*

*Operations - Risk*

*Finance – Budgets/Funding*

*Reporting – Long Range Transit Plans/MPO*



# Putting Asset Information into Action

## SARTA's Asset Management Program

*Cross-agency collaboration towards a common goal to deliver safe and reliable transportation while still working within agency funding constraints.*

*Success starts at the top!*

- Targets – Age, Condition and Performance Assessments
  - Reliable data becomes information
- Using information to achieve organizational goals.



# Ways to Assess Assets

- **Age-based** – Assets should be scheduled for replacement based on Useful Life ULB
- **Condition-based** – Assets should be replaced once inspections identify deteriorated conditions.
- **Performance-based** – Assets should be replaced when the asset fails to meet required performance and reliable levels.
- **Comprehensive Assessment** – Combination of age, condition, performance information and maintenance history.



# Vehicle Replacement Schedule - ULB

Inventory Table from FTA Tier 2 TAM Plan Template

Inventory Table									2019	2020	2021	2022	2023	2024
									28	11	15	14	13	10
								Mark BU	0	0	4	4	5	4
								Mark CU	8	8	10	8	8	8
								Target BU	0.15	0.02	0.15	0.13	0.19	0.09
								Target CU	0.39	0.19	0.15	0.15	0.07	0.11
								47 BU	7	1	7	6	9	4
								54 CU	21	10	8	8	4	6
				Target Year	2020									
Asset Category	Asset Class	Asset Name	ID/Serial #	Acquisition	Age (Yrs)	ULB YEAR	ULB	Over ULB						
RevenueVehicles	BU - Bus	30' Bus	467	2004	-16	2014	10	-6	1					
RevenueVehicles	BU - Bus	30' Bus	468	2004	-16	2014	10	-6	1					
RevenueVehicles	BU - Bus	30' Bus	872	2008	-12	2018	10	-2	1					
RevenueVehicles	BU - Bus	30' Bus	873	2008	-12	2018	10	-2	1					
RevenueVehicles	BU - Bus	30' Bus	874	2008	-12	2018	10	-2	1					
RevenueVehicles	BU - Bus	30' Bus	875	2008	-12	2018	10	-2	1					
RevenueVehicles	BU - Bus	40' Bus Hy	976	2009	-11	2021	10	-1			1			
RevenueVehicles	BU - Bus	40' Bus Hy	977	2009	-11	2021	12	1			1			
RevenueVehicles	BU - Bus	30' Bus Hy	978	2009	-11	2019	10	-1	1	1				
RevenueVehicles	BU - Bus	40' Bus Hy	1079	2010	-10	2022	12	2				1		
RevenueVehicles	BU - Bus	35' Bus	1080	2010	-10	2022	12	2				1		
RevenueVehicles	BU - Bus	35' Bus	1081	2010	-10	2022	12	2				1		
RevenueVehicles	BU - Bus	35' Bus	1082	2010	-10	2022	12	2				1		
RevenueVehicles	BU - Bus	35' Bus	1083	2010	-10	2022	12	2				1		
RevenueVehicles	BU - Bus	35' Bus	1084	2010	-10	2022	12	2				1		
RevenueVehicles	BU - Bus	35' Bus	1085	2010	-10	2022	12	2				1		

# Vehicle Rating

Combination of age, work orders, performance measures.

## A. Vehicle Condition

Score	Rating	Description
81-100	Excellent	New asset; no visible defects.
61-80	Good	Some slightly defective/ deteriorated component(s)
41-60	Moderate	Some moderately defective/ deteriorated component(s)
21-40	Poor	Requires frequent major repairs (less than 6 months between major repairs)
<20	Unsafe/Inoperable	In need of immediate repair or replacement; Item is a safety hazard, and may have critically damaged component(s)

- Comprehensive Rating – Overall a more accurate assessment.

0875			
1. Engine			3
2. Drive-train			3
3. Electrical			3
4. Suspension/steering			3
5. Structure			8
6. Body interior			2
7. Body exterior			2
8. A/C, Heating			5
9. Wheelchair safety			10
10. Safety Items			10
Total Rating			49

1611			
1. Fuel Cell			10
2. Drive-train			10
3. Electrical			7
4. Suspension/steering			10
5. Structure			10
6. Body interior			10
7. Body exterior			10
8. A/C, Heating			10
9. Wheelchair safety			10
10. Safety Items			10
Total Rating	x		97

# Condition Assessment Calculation

Federal Transit Administration  
U.S. Department of Transportation  
Version 1.2 March 2018  
Update Appendix B

## Equipment

Equipment related to the function of the facility

Rating Scale:

1 = Poor	equipment is well past its useful life and has critical defects affecting function and ability to meet standards. Issues are beyond repair and warrant detailed review.
2 = Marginal	equipment has exceeded useful life defects are critical and/or widespread. No longer meets needs or current standards and requires partial replacement at a minimum
3 = Adequate	repairs are needed some deterioration exist and maintenance needs are considerable. Equipment still meets needs and is still within its useful life.
4 = Good	minor deterioration equipment may be outdated but still meets needs of facility with minimal routine maintenance
5 = Excellent	New equipment no apparent defects serving the needs of the facility.

Areas Inspected:

Equipment  
Substructure  
Shell  
Interiors  
Conveyance  
Plumbing  
HVAC  
Fire Protection  
Electrical  
Site



# Facility Rating

Sub-Component Rating Summary

Component	Sub-components	1-5 Rating	Component	Sub-components	1-5 Rating
Substructure	Foundation		HVAC	Energy supply	
	Basement			Generation/distribution	
Shell	Superstructure			Controls	
	Roof			Chimneys/Vents	
	Exterior		Fire Protection	Sprinklers	
	Shell appurtenances			Standpipes	
Interiors	Partitions			Hydrants	
	Stairs		Electrical	Distribution	
	Finishes			Wiring	
Conveyance	Elevators			Communications	
	Escalators			Other	
	Lifts		Equipment		
Plumbing	Fixtures		Site	Roadways/Driveways	
	Water Distribution			Signage	
	Sanitary Waste			Parking lots	
	Rain water drainage			Pedestrian Areas	
HVAC	Energy supply			Fences/Walls	
	Generation/distribution			Landscaping	
	Controls			Site Utilities	
	Chimneys/Vents				

**Stark Area Regional Transit Authority  
2018 TAM Building Inventory Assessment**

Inspection Completed by (Signature): *John D Ferrell / Richard March* Title: *Maintenance Manager / BOG-7000*

Inspection Completed by (Print Name): *John D Ferrell / Richard March* Date Inspection Completed: *11/7/18*

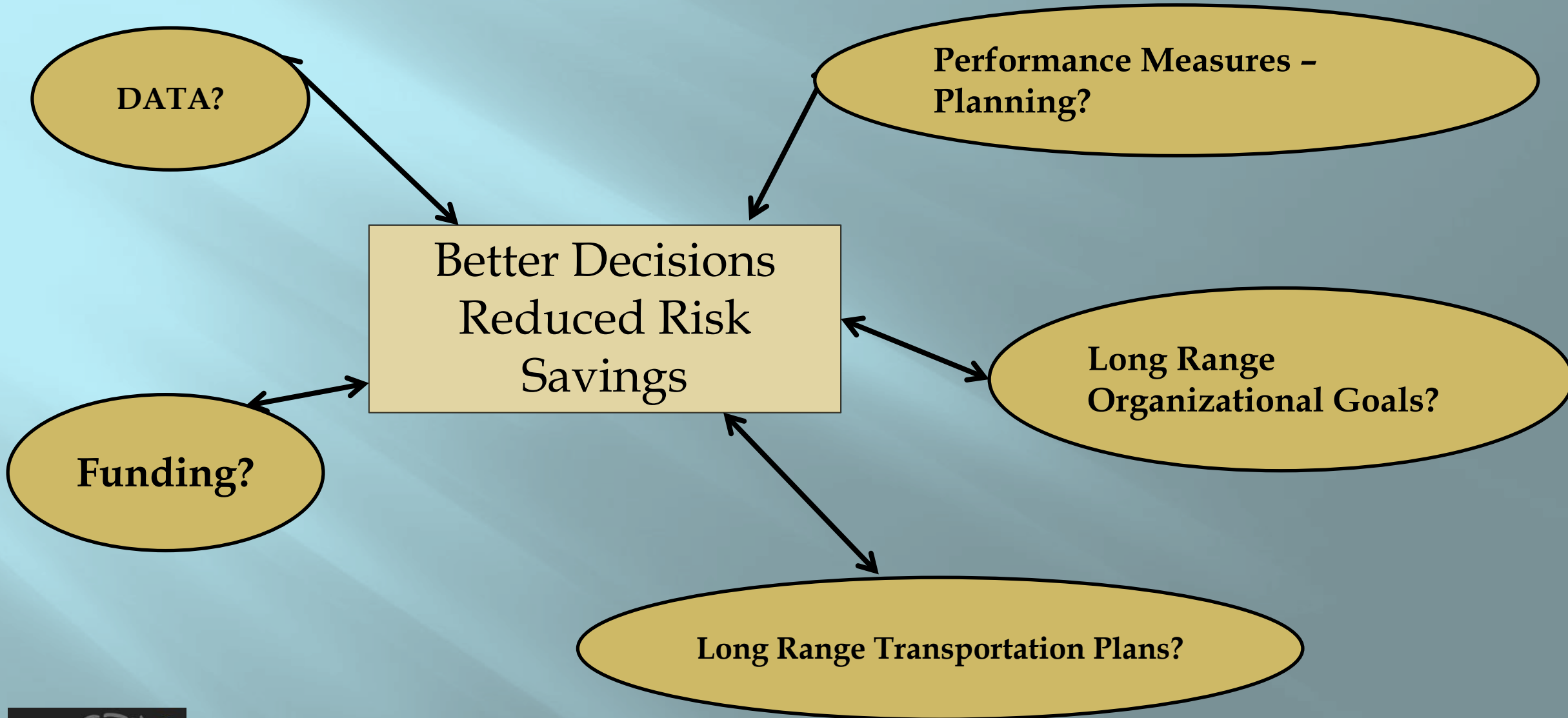
Equipment related to the function of the facility		Overhead Garage Doors and Gates	Rating
1 = Poor	equipment is well past its useful life and has critical defects affecting function and ability to meet standards. Issues are beyond repair and warrant detailed review.	Door 1 Gate	<div style="border: 1px solid black; padding: 2px; text-align: center;">1 N/A</div>
2 = Marginal	equipment has exceeded useful life defects are critical and/or widespread. No longer meets needs or current standards and requires partial replacement at a minimum	Door 2 Gate	<div style="border: 1px solid black; padding: 2px; text-align: center;">4 4</div>
3 = Adequate	repairs are needed some deterioration exist and maintenance needs are considerable. Equipment still meets needs and is still within its useful life.	Door 3 Gate	<div style="border: 1px solid black; padding: 2px; text-align: center;">4 4</div>
4 = Good	minor deterioration equipment may be outdated but still meets needs of facility with minimal routine maintenance	Door 4 Gate	<div style="border: 1px solid black; padding: 2px; text-align: center;">4 4</div>
5 = Excellent	New equipment no apparent defects serving the needs of the facility	Door 5 Gate	<div style="border: 1px solid black; padding: 2px; text-align: center;">4 4</div>
		Door 6 Gate	<div style="border: 1px solid black; padding: 2px; text-align: center;">4 4</div>
		Door 7 Gate	<div style="border: 1px solid black; padding: 2px; text-align: center;">1 N/A</div>
		Door 8 Gate	<div style="border: 1px solid black; padding: 2px; text-align: center;">4 4</div>
		Door 9 Gate	<div style="border: 1px solid black; padding: 2px; text-align: center;">2 N/A</div>
		Door 10 Gate	<div style="border: 1px solid black; padding: 2px; text-align: center;">1 N/A</div>
		Door 11 Gate	<div style="border: 1px solid black; padding: 2px; text-align: center;">4 4</div>
		Door 12 Gate	<div style="border: 1px solid black; padding: 2px; text-align: center;">4 N/A</div>

The overall rating for this facility was a 4 - items that needed repair are noted . Anything under a 4 is then scheduled to be funded and corrected.





## Which comes first...



Need further assistance?

**FTA TAM**

<https://www.transit.dot.gov/TAM>

**APTA Standards**

<https://www.apta.com/research-technical-resources/standards/sustainability/>

*Thank You*

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