

Transit Asset Management In the Atlanta Region

49 CFR Parts 625 and 630

Transit Asset Management

- Effective July 2016
- National Transit Asset Management System
- Defines State of Good Repair
- Requirement that providers (or group plan participants) establish **performance targets** for improving the condition of assets
- Requirement that a provider develop and carry out a TAM Plan
- Reporting requirements
- Analytical processes and decision support tools developed or recommended by FTA



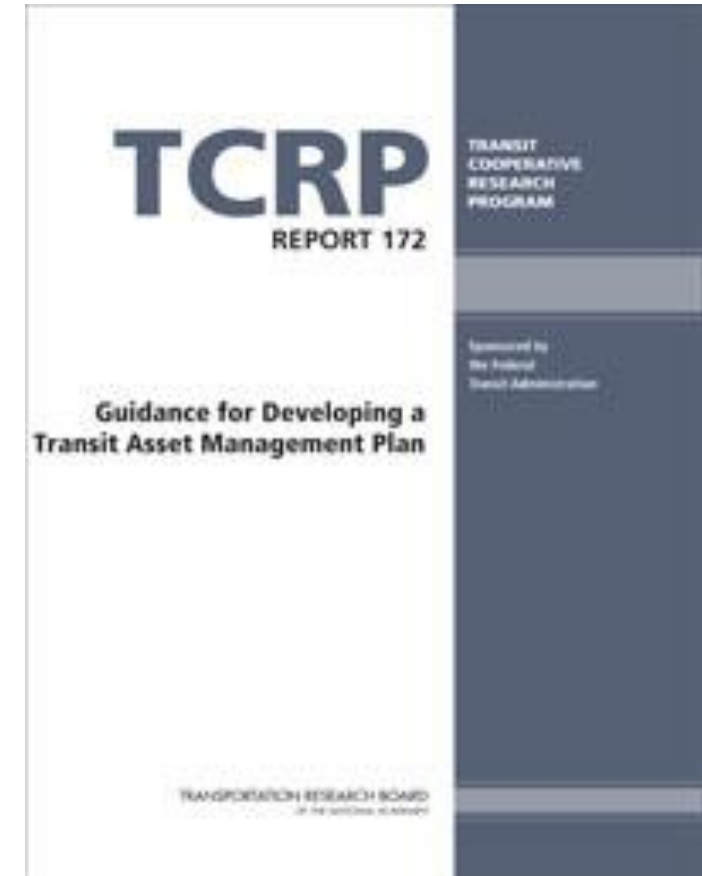
State of Good Repair

- A capital asset is in a state of good repair if it is in a condition sufficient for the asset to operate at a full level of performance
- Accountable Executives must balance transit asset management, safety, day-to-day operations, and expansion needs in approving a TAM plan



Transit Asset Management Plans

- Inventory of capital assets
- Condition assessment of assets
- Description of analytical processes or decision-support tools
- Project-based prioritization of investments
- TAM and SGR Policy
- Implementation Strategy
- Description of key TAM activities
- Summary of resources, including personnel that a provider needs to carry out the TAM plan
- Monitor, Evaluate and Update TAM Plan



Inventory

- Four Categories
 - Equipment (non-revenue service vehicles)
 - Rolling Stock
 - Infrastructure: rail fixed-guideway, track, signals and systems
 - Facilities



Condition Assessment & Targets

- Equipment (non-revenue service vehicles) *percentage of those vehicles that have either met or exceeded their ULB*
- Rolling Stock *percentage of revenue vehicles within a particular asset class that have either met or exceeded their ULB*
- Infrastructure: rail fixed-guideway, track, signals and systems *percentage of track segments with performance restrictions*
- Facilities *percentage of facilities within an asset class, rated below condition 3 on the TERM scale*

Timeline

- January 1, 2017 – Set initial targets
- Within 4 months of the end of FY 2018
 - Condition Assessment
 - Asset Inventory
 - Report Annual Performance Targets to NTD
 - Narrative Report to NTD
- October 1, 2018 – Complete TAM Plan

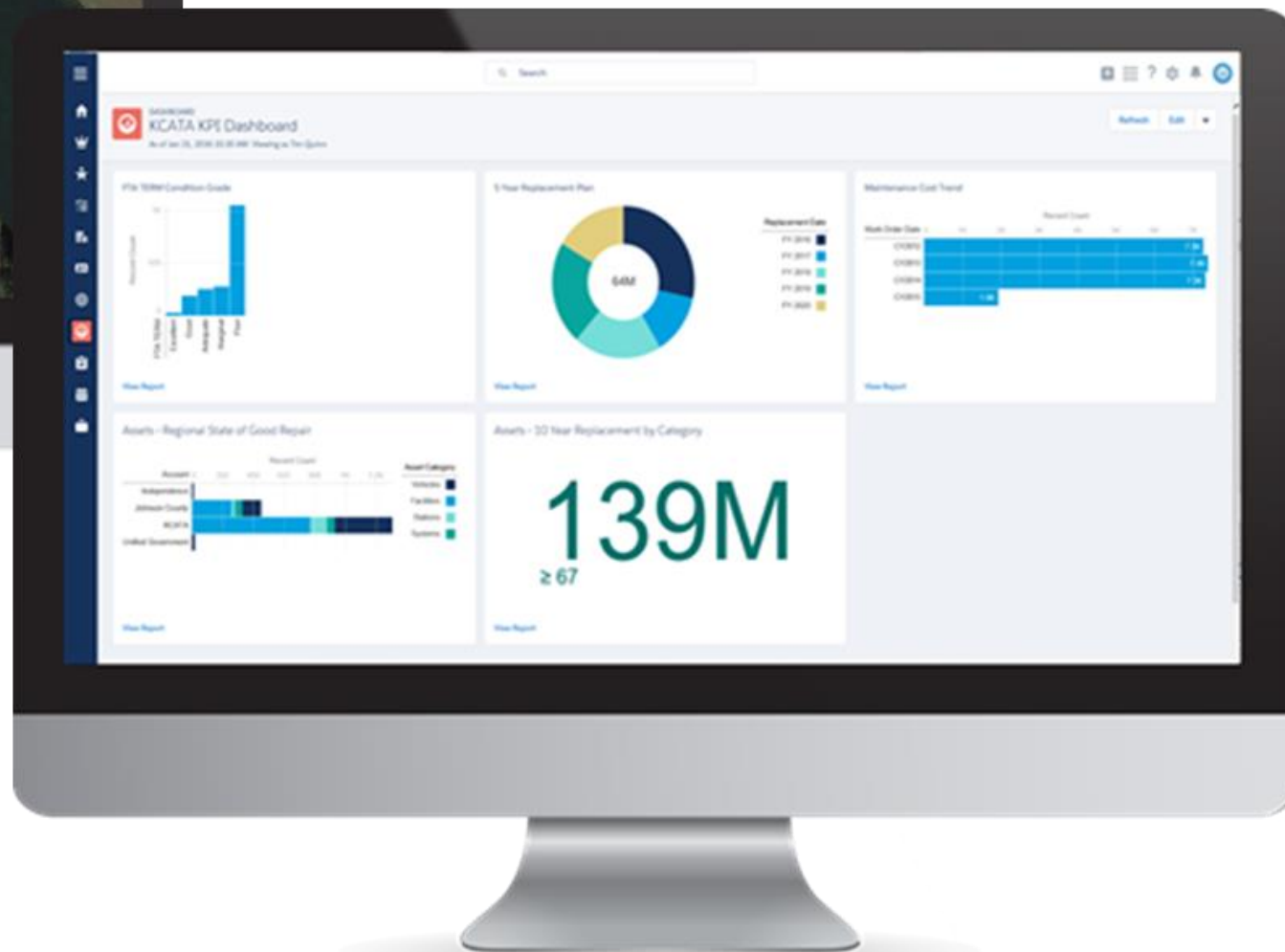
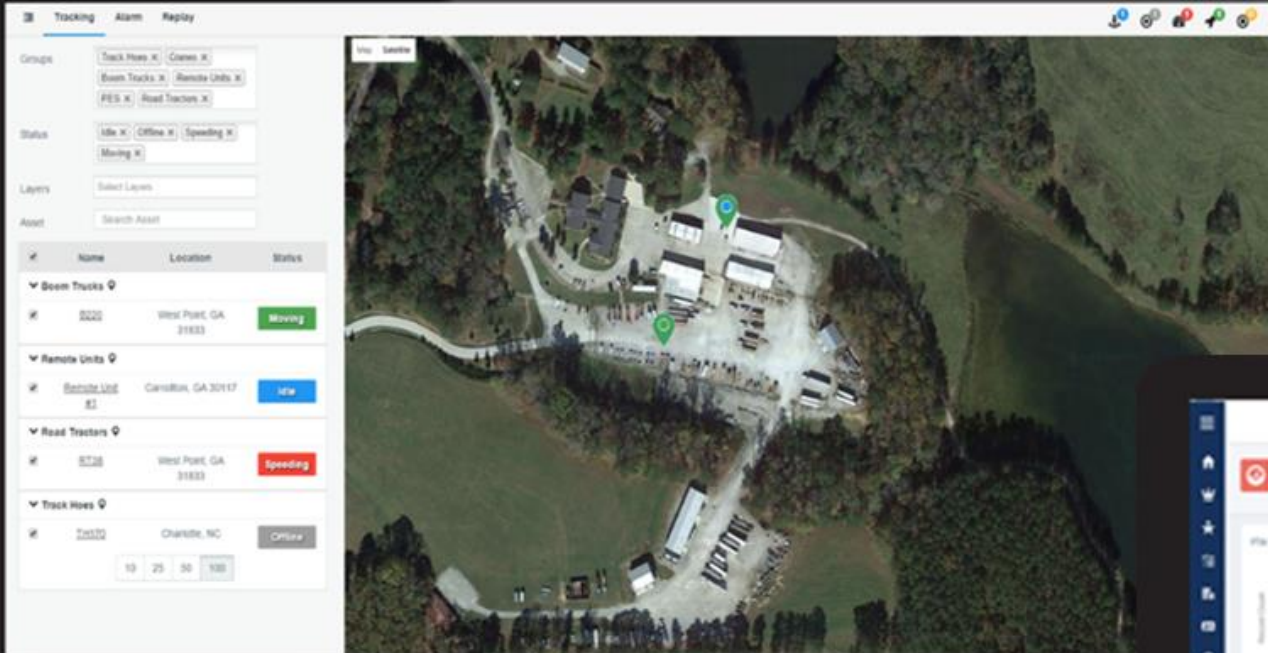
ARC Role

- Confirm initial targets were set by Tier II providers
- Confirm Tier II providers were either in a group plan or had chosen to do their own TAM Plan
- Do a group plan for the ARC 5307 sub-recipient and any other Tier II providers interested
- Develop regional asset database as part of the Transit Vision Update
- Maintain an updated regional asset database for programming funds

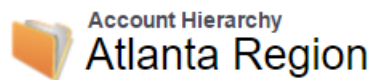
Regional TAM Database

- High level assessment of the Atlanta Region State of Good Repair
- Agency level data rolled up to regional level
- Regional performance targets and measures could be applied for “apple to apple” comparisons
- Key to understanding mid to long range capital planning and budgeting

Asset Intelligence
NTD Compliance
Capital Planning Tools
Ad Hoc Dashboard and Report Builder



Regional Approach



The hierarchy is created by associating accounts with parent accounts.

Account Name	Type	Industry	Billing City	Billing State/Province	Account Owner
<u>Atlanta Region</u>					Brian Corcoran
<u>City of Atlanta</u>					Brian Corcoran
<u>CobbLinc</u>					Brian Corcoran
<u>CPACS</u>					Brian Corcoran
<u>Douglas County Transit</u>					Brian Corcoran
<u>GCT</u>					Brian Corcoran
<u>GRTA</u>					Brian Corcoran
<u>Henry County Transit</u>					Brian Corcoran
<u>MARTA</u>					Brian Corcoran

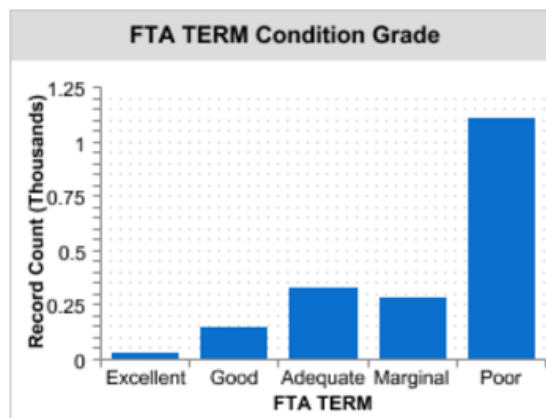
- Asset Data managed and maintained at local transit agency level
- Data can be rolled up to regional level
- Calculate Regional State of Good Repair
- Supports Regional / Group Plan Data Requirements

Regional Asset Inventory

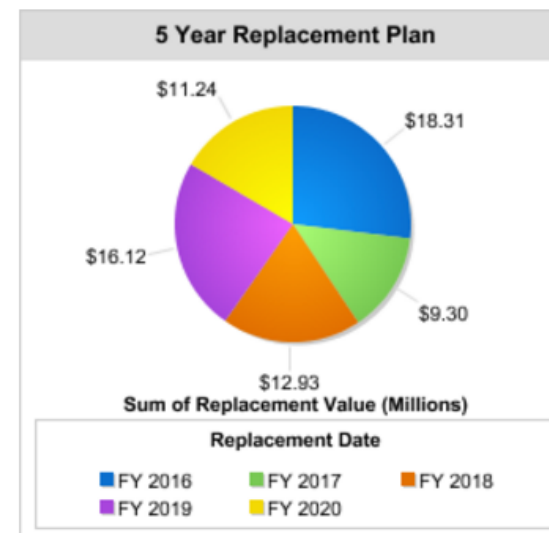
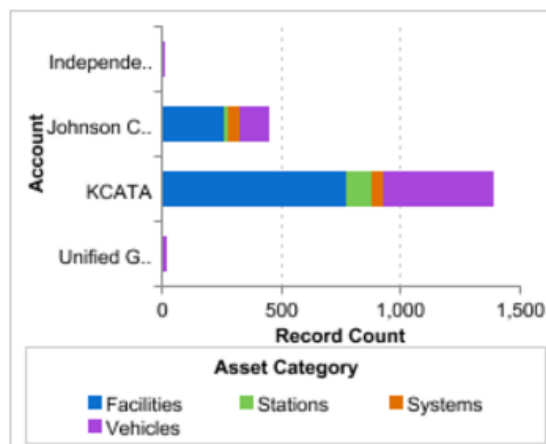
Find a dashboard...

Refresh As of August 9, 2016 at 10:44 AM

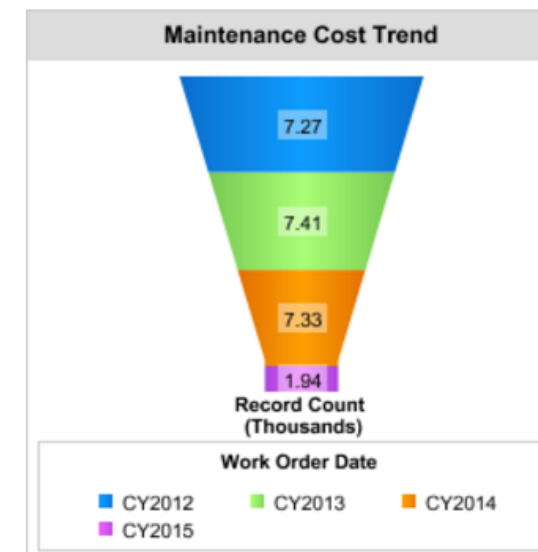
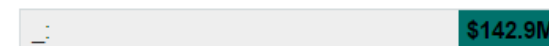
- High Level Inventory by Asset Category for each Regional Transit Provider
- FTA TERM Integration / Support



Assets - Regional State of Good Repair



Assets - 10 Year Replacement by Category



Regional Performance Management

Measures by Asset Class

Assets: <i>Only those for which agency has direct capital responsibility</i>	Performance Measure
Equipment Non-revenue support-service and maintenance vehicles	Percentage of vehicles met or exceeded Useful Life Benchmark
Rolling Stock Revenue vehicles by mode	Percentage of vehicles met or exceeded Useful Life Benchmark
Infrastructure Only rail fixed-guideway, track, signals and systems	Percentage of track segments with performance restrictions
Facilities Maintenance and administrative facilities; and passenger stations (buildings) and parking facilities	Percentage of assets with condition rating below 3.0 on FTA TERM Scale

Examples

Category	Class	Measure
Equipment (Non-revenue Service Vehicle)	Sedan/SUV/Van	% of vehicles that have either met or exceeded their ULB (8 years)
Equipment (Non-revenue Service Vehicle)	Light Duty Truck/ Service Vehicle	% of vehicles that have either met or exceeded their ULB (10 years)
Equipment (Non-revenue Service Vehicle)	Heavy Duty Truck/ Plow	% of vehicles that have either met or exceeded their ULB (12 years)
Rolling Stock (Revenue Vehicle)	Local Bus	% of vehicles that have either met or exceeded their ULB (14 years)
Rolling Stock (Revenue Vehicle)	Express Bus	% of vehicles that have either met or exceeded their ULB (14 years)
Rolling Stock (Revenue Vehicle)	Paratransit Vehicle	% of vehicles that have either met or exceeded their ULB (8 years)
Facilities	Administrative Office/ Facility	% of facilities rated below condition 3 on the TERM scale
Facilities	Vehicle Maintenance Building/ Facility	% of facilities rated below condition 3 on the TERM scale
Infrastructure	Vehicle Maintenance Building/ Facility	% of facilities rated below condition 3 on the TERM scale

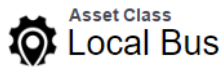
Example Measures with Targets by Class

Category	Asset Class	Useful Life Benchmark (ULB)	Performance Measure	Proposed Target
Equipment (Non-revenue Service Vehicle)	Supervisor Van	5 years	% of vehicles that have either met or exceeded their ULB	Avg. Age: 1 Current: 0% Target: 50%
Equipment (Non-revenue Service Vehicle)	Light Duty Truck/Service Vehicle	8 years	% of vehicles that have either met or exceeded their ULB	Avg. Age: 1 Current: 0% Target: 50%
Equipment (Non-revenue Service Vehicle)	Sedan/SUV	10 years	% of vehicles that have either met or exceeded their ULB	Avg. Age: 5 Current: 33% Target: 50%
Equipment (Non-revenue Service Vehicle)	Heavy Duty Truck/Plow	18 years	% of vehicles that have either met or exceeded their ULB	Avg. Age: 3 Current: 0% Target: 50%
Rolling Stock (Revenue Vehicle)	Local Bus	14 years	% of vehicles that have either met or exceeded their ULB	Avg. Age: 3 Current: 6% Target: 30%
Rolling Stock (Revenue Vehicle)	Express Bus	18 years	% of vehicles that have either met or exceeded their ULB	Avg. Age: 10 Current: 0% Target: 30%
Rolling Stock (Revenue Vehicle)	Paratransit Vehicle	10 years	% of vehicles that have either met or exceeded their ULB	Avg. Age: 8 Current: 0% Target: 30%
Facilities	Paratransit Facility	N/A	% of facilities rated below condition 3 on the TERM scale	Avg. Rating: 4.45 Current: 0%

Regional Performance Management

Home Accounts **Asset Classes** Assets Maint. Schedule Work Orders Reports Dashboards +

Create New...



Asset Class

[Customize Page](#) | [Edit Layout](#) | [Printable View](#) | [Help for this Page](#)

Recent Items

- Local Bus
- City of Atlanta
- MARTA
- Acworth
- Woodstock/ His Hands Church
- West Douglas
- West Conyers/ Sigman Road
- Union City/ South Fulton

Recycle Bin

Asset Class Detail

[Edit](#) [Delete](#) [Clone](#)

Asset Class Name Local Bus

Owner [Brian Corcoran \[Change\]](#)

Useful Life Benchmark (ULB) 14.00

Details

of Assets 46
of Assets Past ULB 12
% Past ULB 26%
Created By [Brian Corcoran](#), 1/11/2017 7:10 AM

Avg. Age 0
Avg. Rating 0.00

Last Modified By [Brian Corcoran](#), 1/11/2017 7:45 AM

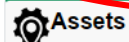
[Edit](#) [Delete](#) [Clone](#)

Performance Measures

[New Performance Measure](#)

[Performance Measures Help](#)

Action	Performance Measure Name	Description	Target	Current
Edit Del	% of Vehicles Past ULB	% of vehicles that have either met or exceeded their ULB	30	26



Assets

[New Asset](#)

[Assets Help](#)

Action	ID	Name	Make	Model	Past ULB	Remaining Useful Life (Months)
Edit Del	AS-000000	269	Nova	82VW	✓	-11

Condition Assessment

Condition	Ratings	Description
Excellent	5.0 to 4.8	New asset; no visible defects
Good	4.7 to 4.0	Asset showing minimal signs of wear; some (slightly) defective or deteriorated component(s)
Adequate	3.9 to 3.0	Asset has reached its mid-life (condition 3.5); some moderately defective or deteriorated component(s)
Marginal	2.9 to 2.0	Asset reaching or just past the end of its useful life; increasing number of defective or deteriorated component(s) and increasing maintenance needs
Poor	1.9 to 1.0	Asset is past its useful life and is in need of immediate repair or replacement; may have critically damaged component(s)

INVESTMENT PRIORITIZATION

- 1) State of Good Repair (SGR) – high, medium, low
- 2) Safety (S) – high, medium, low
- 3) Legal Contract, Mandate, Obligation (CMO) – high, medium, low
- 4) Service Delivery (SD) – high, medium, low
- 5) Efficiency (E) – high, medium, low
- 6) Expanded Service (ES) – high, medium, low

NTD Reporting

Form Name: Revenue Vehicle Inventory (A-70)					Form Name: Transit Asset Management Plan Performance Metrics and Targets					
c					i k m o q s u					
NO BAD DATA Check for Missing Data in Cols. c to ba										
					No. Americans Number of					
Line	Revenue Vehicle Inventory (RVI) ID.	Row Complete Yes / No	Number of Vehicles in Total Fleet	No. Active Vehicles in Fleet	Line	Performance Measure	Annual Target	Annual Performance	Difference	Row Complete Yes / No
1	2982	No	2							
2	298									Yes
3	326									
4	337									Yes
5	Loc									Yes
6	Loc									Yes
7	567									
8	326									
9	413									
10	343									
11	364									
12	Enter RVI ID. then Fill in Columns i - ba					SB - School bus				
						SV - Sport Utility Vehicle				
						TB - Trolleybus				
						TR - Aerial tramway				
						VN - Van				
						VT - Vintage trolley / streetcar				
					2	Percentage of service vehicles that have either met or exceeded their useful life benchmark	50%	10%	-40%	Yes
						Automobiles	50%	14%	-36%	Yes
						Trucks and other Rubber Tire Vehicles	50%	0%	-50%	Yes
						Steel Wheel Vehicles				
					3	Percentage of track segments, signals, and systems with performance restrictions (by mode)				
						AG - Automated Guideway				
						AR - Alaska Railroad				
						CC - Cable Car				
						CR - Commuter Rail				
						HR - Heavy Rail				
						LR - Light Rail				

Requirements:

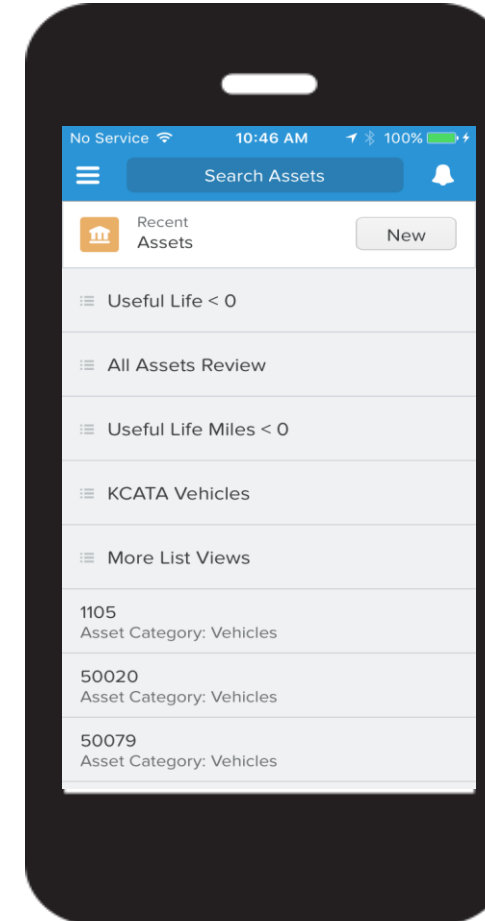
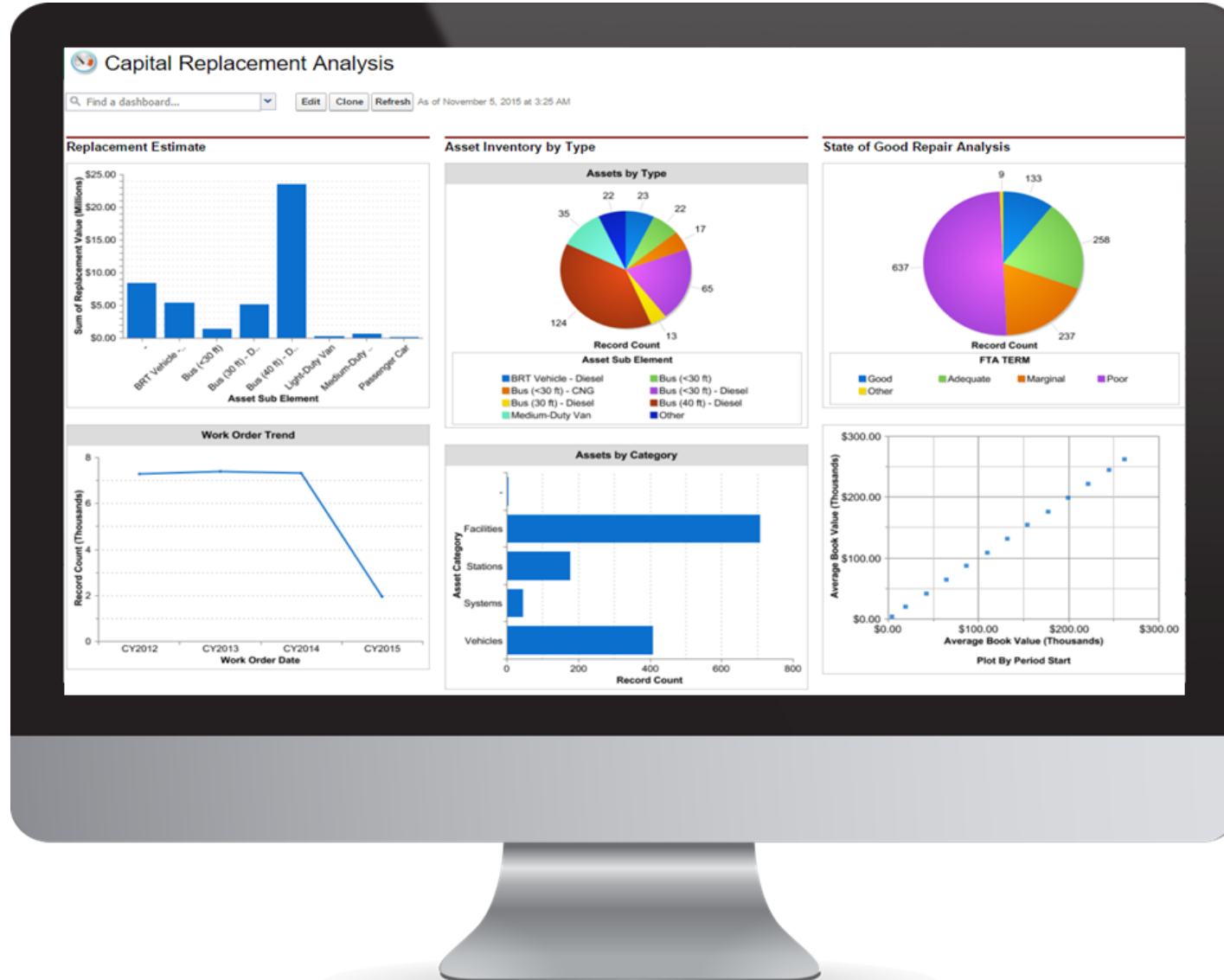
- (1) Projected targets for the next fiscal year;
- (2) Condition assessments and performance results
- (3) A narrative report on changes in transit system conditions and the progress toward achieving previous performance targets

local relevance

+

regional impact

Capital Planning Decision Support Tools





Asset Inventory & Utilization Dashboard

Find a dashboard...

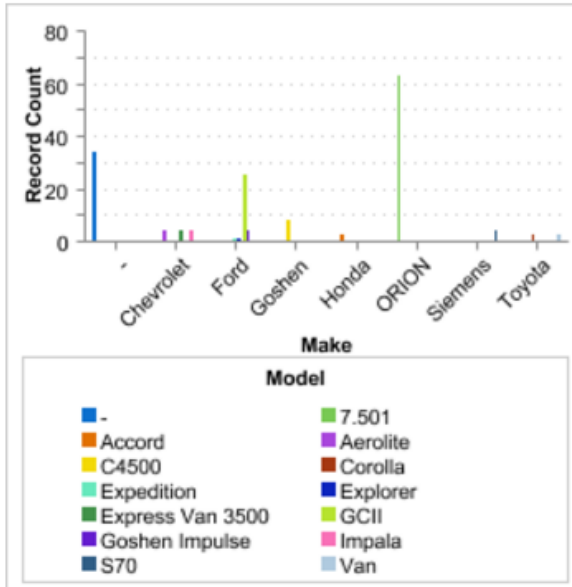
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Clone

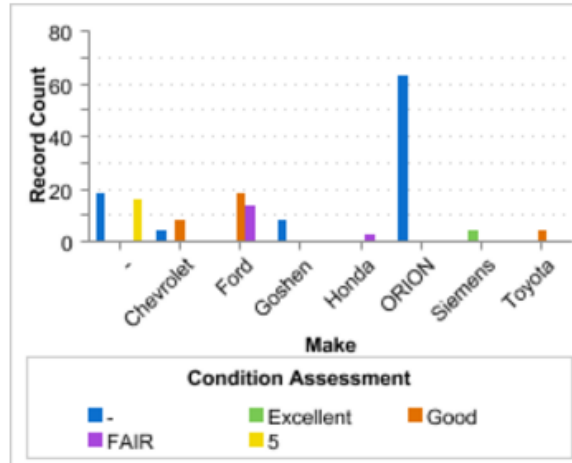
Refresh

As of Today at 4:41 AM

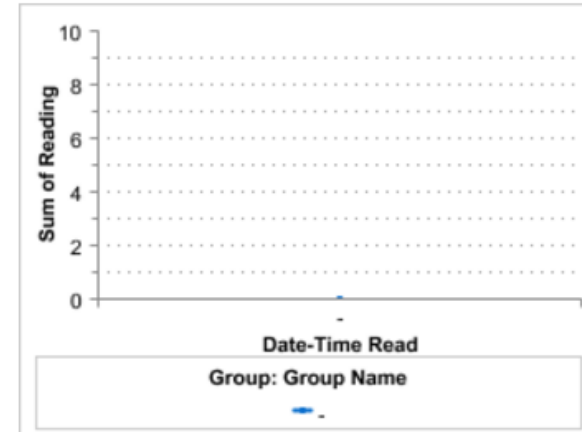
Fleet by Make and Model



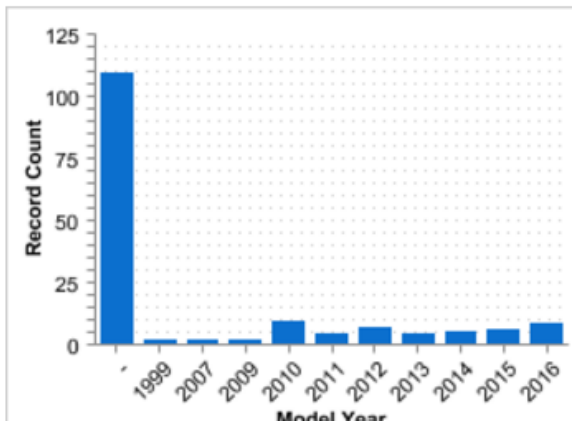
Condition Assessment by Make



Utilization Trends by Group



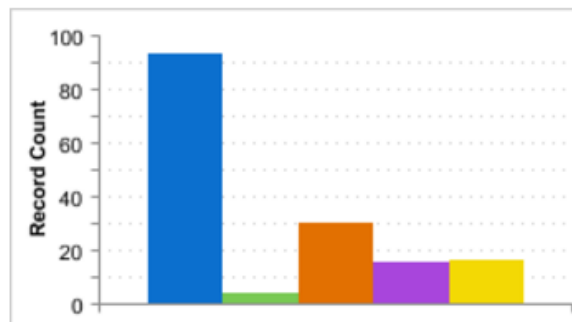
Fleet by Model Year



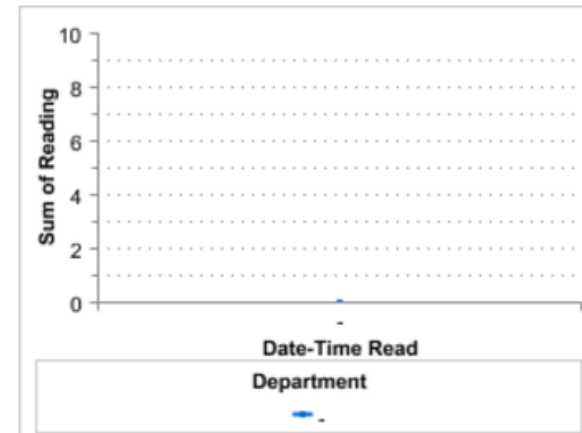
Condition Assessment by Group

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Condition Assessment by Department



Utilization Trends by Department



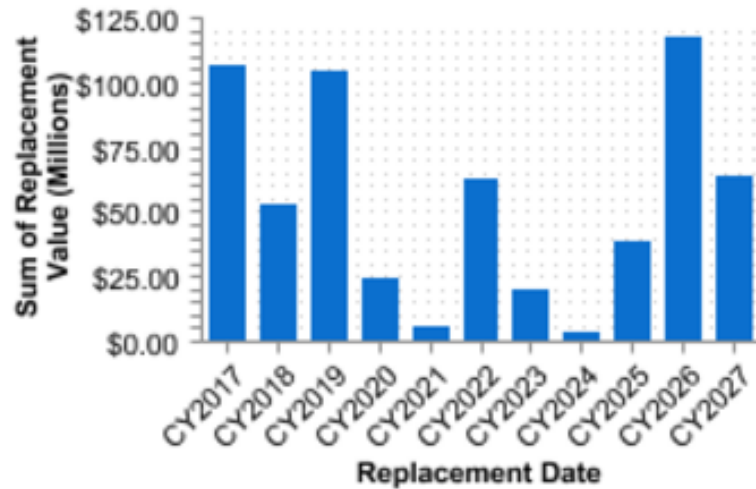


State of Good Repair

[Edit](#)[Clone](#)[Refresh](#)

As of Today at 4:46 AM

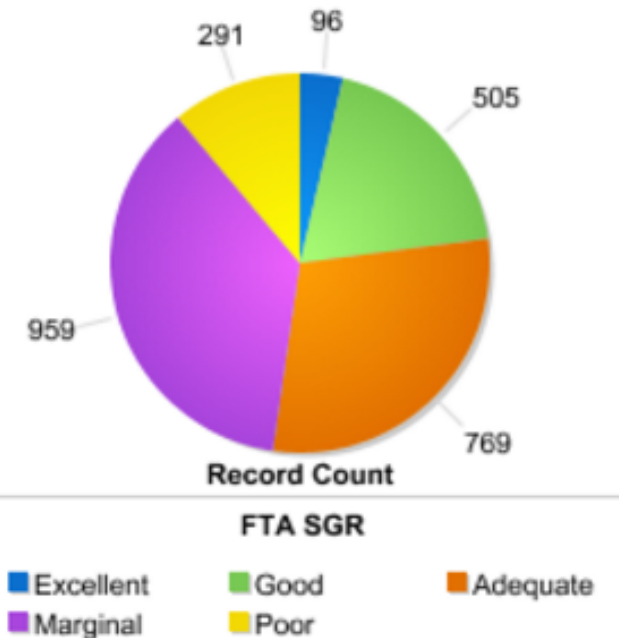
Replacement Estimate



Inventory



Regional SGR





Capital Replacement Analysis

Find a dashboard...

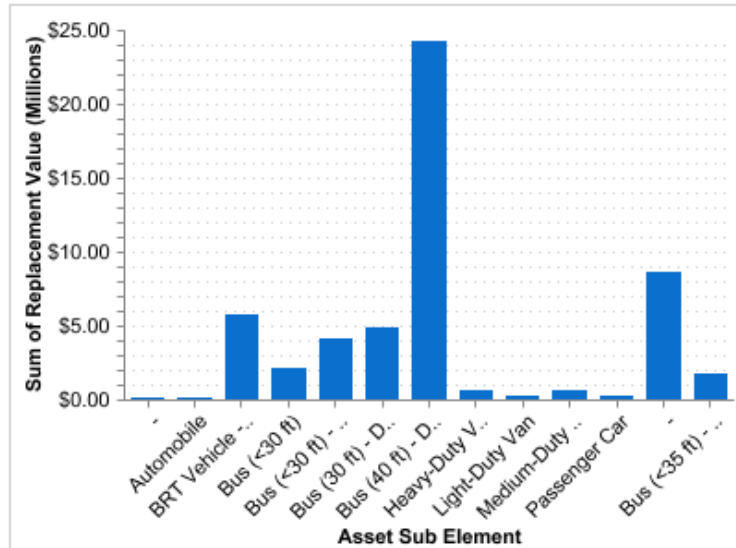
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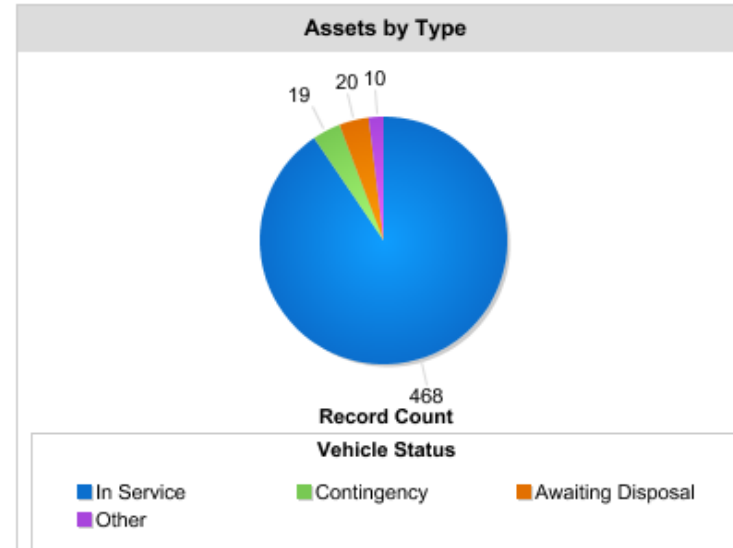
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As of April 4, 2016 at 8:28 AM

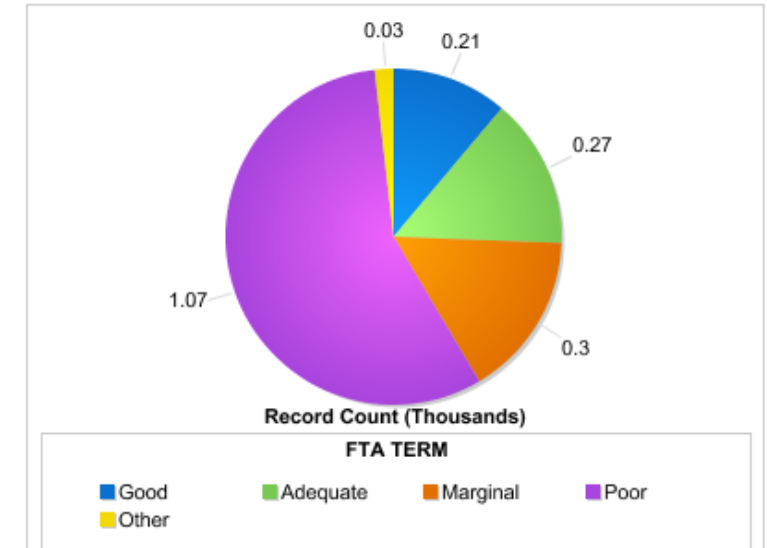
Replacement Estimate



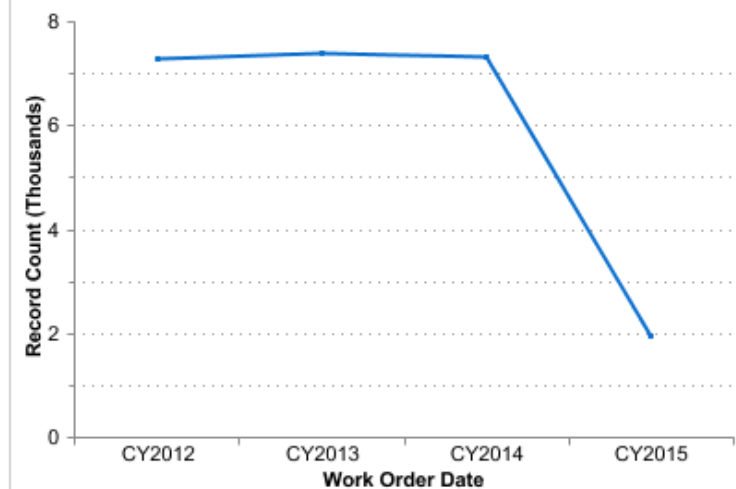
Asset Inventory by Type



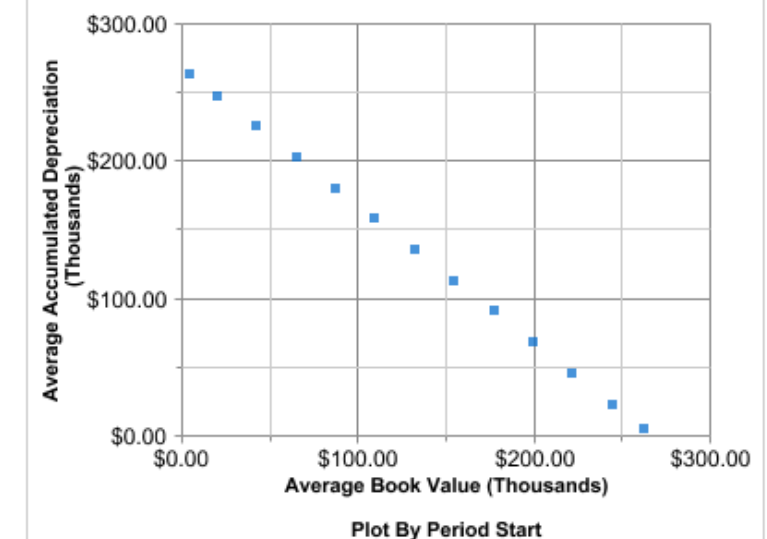
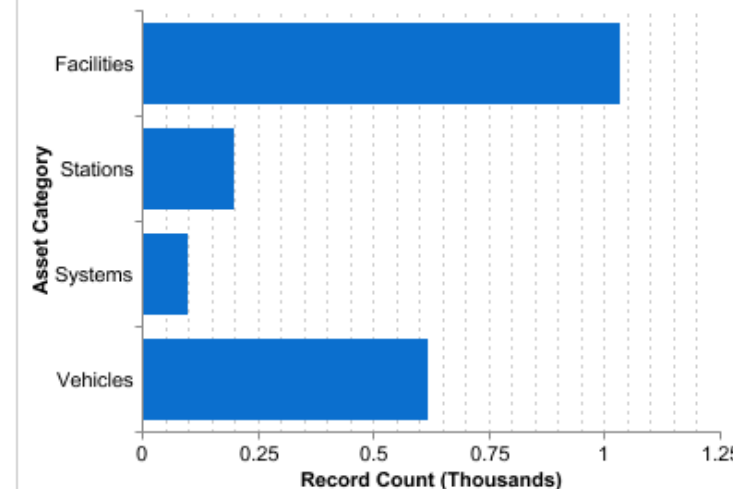
State of Good Repair Analysis



Work Order Trend



Assets by Category





Assets - Capital Replacement Analysis

Report Generation Status: There were too many records to display details. Select Export Details for a complete view of your data.

Report Options:

Summarize information by:

Asset Category

Summarize information by:

Replacement Date

Show

All assets

Time Frame

Date Field
Replacement Date

Range
Custom

From
1/1/2017

To
12/31/2027

- Run Report
- Hide Details
- Customize
- Save
- Save As
- Delete
- Printable View
- Export Details
- Subscribe

			Replacement Date											Grand Total
	Asset Category		CY2017	CY2018	CY2019	CY2020	CY2021	CY2022	CY2023	CY2024	CY2025	CY2026	CY2027	
<input type="checkbox"/>	-	Sum of Replacement Value	\$0.00	\$1,110,263.62	\$0.00	\$0.00	\$444,020.50	\$3,054,074.41	\$1,156,941.20	\$0.00	\$0.00	\$0.00	\$0.00	\$5,765,299.73
		Average Replacement Value	\$0.00	\$100,933.06	\$0.00	\$0.00	\$74,003.42	\$169,670.80	\$165,277.31	\$0.00	\$0.00	\$0.00	\$0.00	\$137,269.04
		Record Count	0	11	0	0	6	18	7	0	0	0	0	42
<input type="checkbox"/>	Vehicles	Sum of Replacement Value	\$103,347,911.25	\$48,685,881.00	\$24,663,680.84	\$13,782,655.00	\$3,425,056.79	\$58,212,541.45	\$877,288.75	\$408,281.25	\$5,116,280.00	\$109,683,471.25	\$53,548,898.75	\$421,751,946.33
		Average Replacement Value	\$291,120.88	\$218,322.34	\$137,785.93	\$108,524.84	\$22,986.96	\$292,525.33	\$22,494.58	\$10,468.75	\$72,060.28	\$474,820.22	\$552,050.50	\$246,782.88
		Record Count	355	223	179	127	149	199	39	39	71	231	97	1,709
<input type="checkbox"/>	Guideway	Sum of Replacement Value	\$67,132.50	\$1,799,195.00	\$639,625.00	\$4,999,346.25	\$1,494,535.00	\$252,412.50	\$512,075.00	\$23,520.00	\$102,412.50	\$0.00	\$0.00	\$9,890,253.75
		Average Replacement Value	\$67,132.50	\$46,133.21	\$45,687.50	\$35,206.66	\$62,272.29	\$42,068.75	\$34,138.33	\$11,760.00	\$25,603.13	\$0.00	\$0.00	\$40,041.51
		Record Count	1	39	14	142	24	6	15	2	4	0	0	247
<input type="checkbox"/>	Systems	Sum of Replacement Value	\$3,357,687.50	\$537,500.00	\$79,312,500.00	\$5,625,000.00	\$250,000.00	\$625,000.00	\$17,175,000.00	\$2,893,750.00	\$4,418,750.00	\$7,362,500.00	\$10,362,500.00	\$131,920,187.50
		Average Replacement Value	\$31,380.26	\$17,916.67	\$1,086,472.60	\$1,875,000.00	\$31,250.00	\$26,041.67	\$37,997.79	\$21,435.19	\$15,613.96	\$37,951.03	\$63,573.62	\$89,619.69
		Record Count	107	30	73	3	8	24	452	135	283	194	163	1,472
<input type="checkbox"/>	Stations	Sum of Replacement Value	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$28,621,200.00	\$0.00	\$0.00	\$28,621,200.00
		Average Replacement Value	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$28,621,200.00	\$0.00	\$0.00	\$28,621,200.00
		Record Count	0	0	0	0	0	0	0	0	1	0	0	1
Grand Total		Sum of Replacement Value	\$106,772,731.25	\$52,132,839.62	\$104,615,805.84	\$24,407,001.25	\$5,613,612.29	\$62,144,028.36	\$19,721,304.95	\$3,325,551.25	\$38,258,642.50	\$117,045,971.25	\$63,911,398.75	\$597,948,887.30
		Average Replacement Value	\$230,610.65	\$172,055.58	\$393,292.50	\$89,731.62	\$30,019.32	\$251,595.26	\$38,443.09	\$18,895.18	\$106,570.03	\$275,402.29	\$245,813.07	\$172,269.92
		Record Count	463	303	266	272	187	247	513	176	359	425	260	3,471

Checkmark to filter the data down by

