



THE TRANSIT AUTHORITY OF RIVER CITY

# Starting with Asset Data and Finance

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# WE MOVE THE CITY!



# TARC at a glance

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- ➔ **12.4 million annual boardings**
- ➔ **41,270 average weekday boardings**
- ➔ **Five counties, two states**
- ➔ **43 routes: high frequency, express, local, circulators**
- ➔ **223 fixed-route buses: 33 hybrid-electric, 15 electric**
- ➔ **102 paratransit vehicles**
- ➔ **645 team members**



# TARC at a glance

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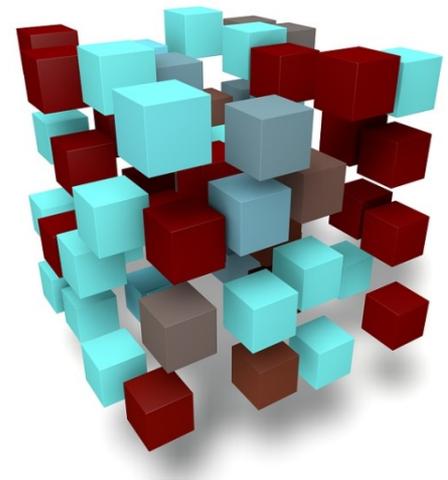
- ➡ 2 campuses
- ➡ 10 buildings
- ➡ Fixed-route fleet
- ➡ Paratransit fleet
- ➡ Service vehicles
- ➡ Maintenance shop equipment
- ➡ Rideshare vehicles
- ➡ 5310 subrecipient vehicles



# TAM and Ellipse upgrade

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- ...→ **Coincided with upgrade of ABB Ellipse enterprise asset management system from Version 5.2.3 (2002) to version 8.9.12.2**
- ...→ **Monolithic to microservices architecture. Training covered the leap more than new functionality.**
- ...→ **ABB consultants developed TAM plan with a continuous improvement plan that is closely tied to TAM functionality.**



# Implementation Paths

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<b>Asset Class Driven</b>	<b>Driven by the managers of individual asset classes who champion asset management. Improvements focus on the lifecycle management of individual asset classes.</b>
<b>Capital Planning Driven</b>	<b>Focuses on providing information on asset condition from a centralized asset inventory in a consistent way across all asset classes. Information can be used to improve programming and prioritization to improve asset management outcomes.</b>
<b>Enterprise Driven</b>	<b>Uses consistent, up-to-date, and increasingly complete asset inventory data to align with the agency's performance management requirements and support all enterprise-level asset management business processes.</b>

# Connecting TAM to Finance

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- '''→ **Asset inventory vs. equipment register**
- '''→ **Labor Costing**
- '''→ **Charging to facility components**
- '''→ **Prioritized list of investments**

# Asset inventory

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**What belongs in an asset inventory?**

# Asset inventory

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**What belongs in an asset inventory?**

**It depends.**

# Asset inventory

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**What belongs in an asset inventory?**

**Anything that has been a line item in a capital purchase order.**

**- Finance department**

# Asset inventory

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**What belongs in an asset inventory?**

**Anything that will require a capital expense greater than \$5,000 to replace.**

**- Grants department**

# Asset inventory

## TAM/NTD Crosswalk

Assets	TAM Plan Inventory	TAM Plan Condition Assessment	NTD Inventory & Condition Submittal	SGR Targets
<b>Revenue Vehicles</b>				
Owned	yes	yes	yes	yes
Direct Capital Responsibility	yes	yes	yes	yes
3 <sup>rd</sup> Party Owned (Direct Capital Responsibility)	yes	yes	yes	yes
3 <sup>rd</sup> Party Owned (NO Direct Capital Responsibility)	yes	no	yes*	no
<b>Equipment: Non-revenue Vehicles (regardless of cost)</b>				
Owned	yes	yes	yes	yes
Direct Capital Responsibility	yes	yes	yes	yes
3 <sup>rd</sup> Party Owned	no	no	no	no
<b>Equipment: Over \$50,000 in Acquisition Value</b>				
Owned	yes	yes	no	no
Direct Capital Responsibility	yes	yes	no	no
3 <sup>rd</sup> Party Owned	no	no	no	no
<b>Equipment</b>				
Under \$50,000 in Acquisition Value	no	no	no	no
<b>Facilities:</b>				
Owned	yes	yes	yes	yes
Direct Capital Responsibility	yes	yes	yes	yes
3 <sup>rd</sup> Party Owned (Direct Capital Responsibility)	yes	yes	yes	yes
3 <sup>rd</sup> Party Owned (NO Direct Capital Responsibility)	yes	no	yes**	no
<b>Infrastructure: Non Rail Fixed Guideway</b>				
Owned	yes	yes	no	no
Direct Capital Responsibility	yes	yes	no	no
3 <sup>rd</sup> Party Owned (Direct Capital Responsibility)	yes	yes	no	no
3 <sup>rd</sup> Party Owned (NO Direct Capital Responsibility)	yes	no	no	no
<b>Infrastructure: Rail Fixed Guideway</b>				
Owned	yes	yes	yes	yes
Direct Capital Responsibility	yes	yes	yes	yes
3 <sup>rd</sup> Party Owned (Direct Capital Responsibility)	yes	yes	yes	yes
3 <sup>rd</sup> Party Owned (NO Direct Capital Responsibility)	yes	no	yes	no

Included in TAM Plan

Reported to NTD

# Asset inventory

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**The inventory must include all capital assets that a provider owns, except equipment with an acquisition value under \$50,000 that is not a service vehicle. An inventory also must include third-party owned or jointly procured exclusive use maintenance facilities, passenger station facilities, administrative facilities, rolling stock, and guideway infrastructure used by a provider in the provision of public transportation.**

**The asset inventory must be organized at a level of detail commensurate with the level of detail in the provider's program of capital projects.**

# Equipment register

TARC ELLIPSE PRODUCTION 8.9.12.2

MSE60A - Update Equipment Register

Submit Refresh New Save As Delete Open Up New Search Disposal EGI APL Equipment APL MSTs Standard Jobs Work Orders Condition Monitoring

- TARC TARC Maintenance Administration
  - BLDG TARC Buildings and Grounds
    - BLDG10 10th Street Buildings and Grounds
      - ANNEX Annex/Training Center**
        - AX-CON Conveyance (ANNEX)
          - US-AX-ELEV Elevator
        - AX-EL Electrical (ANNEX)
        - AX-EQ Equipment (ANNEX)
          - AX-EQ-COMP Air Compressor, GX7FF
          - AX-EQ-LIFT Lift, Mobile System (4 Units)
        - AX-FIRE Fire Protection (ANNEX)
        - AX-HVAC HVAC (ANNEX)
        - AX-INTR Interior (ANNEX)
        - AX-PLM Plumbing (ANNEX)
        - AX-SHL Shell (ANNEX)
        - AX-SITE Site (ANNEX)
        - AX-SUB Substructure (ANNEX)
      - BAGGAGE Baggage Building
      - BARN Barn
      - HOIST Car Hoist
      - TRANSOP Transportation and Operations Building
      - USTA Union Station
    - BLDG29 29th Street Buildings and Grounds
      - BW-BARN Barn
      - BW-PAINT Paint Booth
      - CALLCTR Call Center
      - NIACTR NIA Center
      - UNITSHOP Unit Shop
    - EQUIP Capital Equipment
    - RLSTCK Rolling Stock
      - NONREVENUE Non Revenue
      - REVENUE Revenue

Equipment Number: 10000000753  
 Description: Annex/Training Center  
 Associated Equipment Item:

**General** Costing Tracing Condition Classifications Location Extended Desc Nameplate Alternate References

Equipment Class: PU Productive Unit Equipment Type:   
 Plant Number: ANNEX  
 Status: AV Available Equipment Location: USTA Union Station  
 Productive Unit: BLDG10 10TH STREET BUILDINGS AND GROUND  
 Custodian:   
 Custodian Position:   
 Operator Id:   
 Operator Position:   
 Input By:   
 Customer Number:   
 Shutdown Equip:   
 Warranty Stat. Type: Warranty Stat. Value:   
 Warranty Date:   
 Name Code: District Code: TARC TARC 8.9.3 PROD  
 Active:   
 Equipment Pool ID:   
 IAA Asset:

# Primary facility levels

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## ▼ ANNEX Annex/Training Center

### ▼ AX-CON Conveyance (ANNEX)

US-AX-ELEV Elevator

### ▶ AX-EL Electrical (ANNEX)

### ▼ AX-EQ Equipment (ANNEX)

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### ▶ AX-SITE Site (ANNEX)

### ▶ AX-SUB Substructure (ANNEX)

# Labor costing

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- ☛ Intended use of data
  - ☛ Actual rate vs. Standard rate
  - ☛ Charge overtime to assets?
- ☛ Challenges for Diesel work group
  - ☛ Speed of data entry amid break-in work
  - ☛ Road calls
- ☛ Already seeing labor cost trends

# Capital work requests

“Build a healthy backlog.”

Search Method  Work Request Id

**General** | Requester | Address | Assigned / Estimate | Reference Codes

Classification  Request Type   
[Equipment Reference](#)  Status   
User Status  Priority   
Source Reference   
Service Level Agreement  SLA Failure Code   
Region   
Required By Date From  Raised Date From   
Required By Date To  Raised Date To

**Search Results**

Work Request	Request Description 1	Classification Desc	Request Type Desc	Status Desc	Raised Date	Priority	E
000000000004	Folding furniture purchase	Office Equipment	Capital Request	Closed	03/01/2019	3 - Medium	
000000000005	Solar Array for Union Station Barn	Facility	Capital Request	Open	07/02/2019	2 - High	
000000000006	Construct Extended Bay - Diesel West	Facility	Capital Request	Open	07/02/2019	3 - Medium	
000000000007	Renovate Transportation dispatch office	Facility	Capital Request	Open	07/03/2019	3 - Medium	
000000000008	Patch and recoat shop floors (USTA)	Facility	Capital Request	Open	07/03/2019	4 - Low	
000000000009	Remove and replace 6 in-ground lifts	Facility	Capital Request	Open	07/03/2019	3 - Medium	
000000000010	Roof replacement, Union Station building	Facility	Capital Request	Open	07/03/2019	3 - Medium	
000000000011	Purchase automated fuel mgmt system	Facility	Capital Request	Open	07/09/2019	2 - High	
000000000012	Purchase replacement utility vehicle	Shop Equipment	Capital Request	Closed	07/11/2019	1 - Immediate	
000000000013	Supply and delivery of two (2) Ford F250	Shop Equipment	Capital Request	Open	07/23/2019	1 - Immediate	

# Final points

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- ➔ **Content and costs associated with the equipment register are the basis for all planned TAM actions**
- ➔ **Enterprise driven approach is viable with a disciplined approach to building and maintaining asset data**





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# Questions?

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Chris Ward  
Maintenance Asset Manager