

Iowa DOT Transit Asset Group Management

Sree Mitra
Office of Public Transit
Iowa DOT

MPO/RPA Quarterly Meeting
September 26, 2018



Transit Asset Management Rule

49 CFR Parts 625

Applies to all recipients and subrecipients of chapter 53 funds that own, operate, or manage public transportation capital assets. This final rule requires public transportation providers to develop and implement transit asset management (TAM) plans.

State DOTs required to sponsor Group TAM plan for 5311 subrecipients



Transit Asset Management Committee

The Transit Asset Management Committee --Advisory Group

Transit agency members of this committee served to provided valuable feedback to the DOT Office of Public Transit and were responsible for composing parts of the TAM plan.

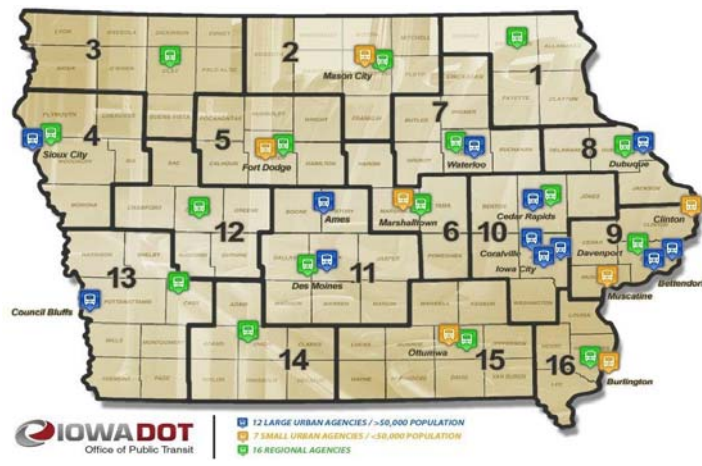
Sree Mitra	Grant Manager, Iowa Department of Transportation
Julia Castillo	Executive Director, Heart of Iowa Regional Transit Agency
Curt Miller	Transit Director, Siouxland Regional Transit System
Dennis Hart	Transit Director, Clinton Municipal Transit Administration

TAM Plan Link:
https://iowadot.gov/systems_planning/fpmam/2018-IowaDOT-Group-Transit-Asset-Mgmt-Plan.pdf



Group Transit Asset Management Plan Participants

The Iowa DOT is the group plan sponsor for 23 Iowa transit systems who are all recipients of section 5311 funding.



Transit Asset Management Plan Tier II Requirements

- Inventory, number and type of capital assets
- Condition report of those assets ←
- Description of analytical process or decision making tools
- Project-based prioritization of investments

PUBLIC TRANSIT MANAGEMENT SYSTEM (PTMS) FOR REVENUE VEHICLES

This system is a prioritization process used to select revenue vehicles to be funded for replacement.

The Office of Public Transit maintains an extensive inventory on all existing vehicles in the state, which is updated annually. The system prioritizes vehicle replacement annually on a statewide basis based on age and mileage of existing vehicles compared to useful life standards for the specific type of equipment.

Point system:

- **Age Score** *actual months owned - fleet life months*
- **Mileage Score** *(accumulated mileage - fleet life mileage)/3,500*

Mileage Score
+ Age score =
PTMS vehicle points

Revenue vehicle purchase
are prioritized by
PTMS points



PTMS LIST

Non-Urban Allocation \$1,750,000										
Sponsor	VIN #	Mileage	YEAR	Current Vehicle Description	Replacement Vehicle Description	Add Ons	FY18 Total Cost	FY18 Federal Participation	Local Match	PTMS Points
Region 1	1FDXE45P76HB33082	229,796	2004	Light Duty Bus (158" wb)	Light Duty Bus (176" wb)	VSS	\$93,700	\$79,645	\$14,055	118.00
Region 1	1FDXE45P06HB33084	221,917	2004	Light Duty Bus (158" wb)	Light Duty Bus (176" wb)	VSS	\$93,700	\$79,645	\$14,055	115.77
Mason City	1FDXE45P86DB00504	237,311	2006	Light Duty Bus (158" wb)	Light Duty Bus (176" wb)	Diesel, UFRC, VSS	\$108,700	\$92,395	\$16,305	113.72
Region 1	1FDXE45P96HB33083	208,206	2004	Light Duty Bus (158" wb)	Light Duty Bus (176" wb)	VSS	\$93,700	\$79,645	\$14,055	111.84
Region 1	1FDXE45P56HA33081	202,488	2004	Light Duty Bus (158" wb)	Light Duty Bus (176" wb)	VSS	\$93,700	\$79,645	\$14,055	110.21
Region 13	1FDXE45S26DB26083	237,152	2007	Light Duty Bus (176" wb)	Light Duty Bus (176" wb)	VSS	\$90,697	\$77,092	\$13,605	109.91
Region 12	1FDXE45S87DA13045	230,238	2007	Light Duty Bus (176" wb)	Light Duty Bus (176" wb)	VSS	\$93,700	\$79,645	\$14,055	107.13
Region 12	1FDXE45S17DA13047	220,022	2007	Light Duty Bus (176" wb)	Conversion Van	VSS	\$55,500	\$47,175	\$8,325	103.62
Region 14	1FDXE45S85HB14012	143,805	2005	Light Duty Bus (158" wb)	Light Duty Bus (176" wb)	VSS	\$91,700	\$73,360	\$18,340	102.80
Region 10	1FDXE45F83HB83735	244,173	2004	Light Duty Bus (176" wb)	Light Duty Bus (176" wb)	Diesel, VSS	\$101,700	\$86,445	\$15,255	101.67
Region 14	1FDWE35S34HA96278	130,638	2004	Light Duty Bus (138" wb)	Light Duty Bus (176" wb)	VSS	\$91,700	\$73,360	\$18,340	100.84
Region 14	1FDWE35S14HA96280	124,107	2004	Light Duty Bus (138" wb)	Light Duty Bus (176" wb)	VSS	\$91,700	\$73,360	\$18,340	99.33
Region 9	1FDWE35S76HB34033	163,665	2006	Light Duty Bus (138" wb)	Light Duty Bus (158" wb)	VSS	\$88,600	\$75,310	\$13,290	97.52
Region 10	1FDWE35S76DA78814	173,295	2006	Light Duty Bus (138" wb)	Light Duty Bus (138" wb)	VSS	\$84,500	\$67,600	\$16,900	97.38
Region 10	1FDXE45P46HB33119	160,126	2006	Light Duty Bus (176" wb)	Light Duty Bus (176" wb)	Diesel, VSS	\$101,700	\$86,445	\$15,255	97.10
Region 4	1FDXE45X6HB24641	148,556	2006	Light Duty Bus (176" wb)	Light Duty Bus (176" wb)	VSS	\$91,700	\$77,945	\$13,755	97.10
Region 9	1FDWE35S16HB34027	162,172	2006	Light Duty Bus (138" wb)	Light Duty Bus (158" wb)	VSS	\$88,600	\$75,310	\$13,290	97.08
Region 12	1FDXE45S95HB19963	124,980	2005	Light Duty Bus (158" wb)	Light Duty Bus (176" wb)	VSS	\$93,700	\$79,645	\$14,055	97.06
Region 9	1FDWE35S56HB34029	161,845	2006	Light Duty Bus (138" wb)	Light Duty Bus (158" wb)	VSS	\$88,600	\$75,310	\$13,290	97.00
Region 5	1HVBEABM12H541900	211,840	2002	Medium Duty Bus (29-32 ft.)	Medium Duty Bus (29-32 ft.)	Diesel, VSS	\$192,549	\$163,667	\$28,882	96.12
Region 16	1FD4E45P38DB46358	253,123	2008	Light Duty Bus (176" wb)	Light Duty Bus (176" wb)	VSS	\$93,700	\$79,645	\$14,055	95.95
Region 9	1FDWE35S66HB34038	157,583	2006	Light Duty Bus (138" wb)	Light Duty Bus (158" wb)	VSS	\$56,131	\$47,711	\$8,420	95.77
Count								\$1,750,000		



Vehicle Condition

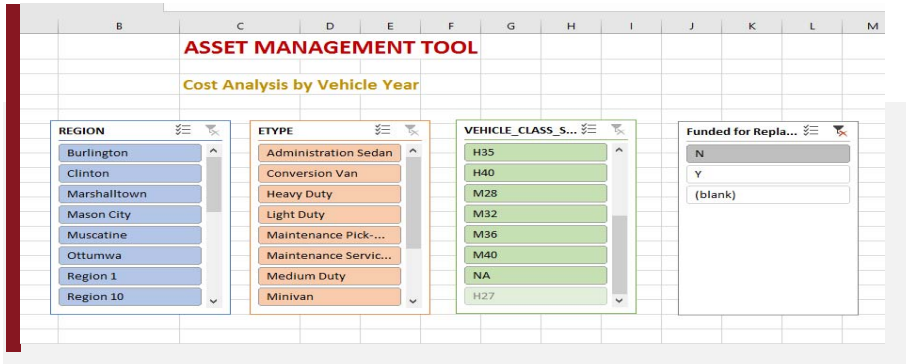
Developed a five-point guidance system to aid in assessing physical condition of vehicles

GRADE 1-5 (Following FTA TERM Scale)

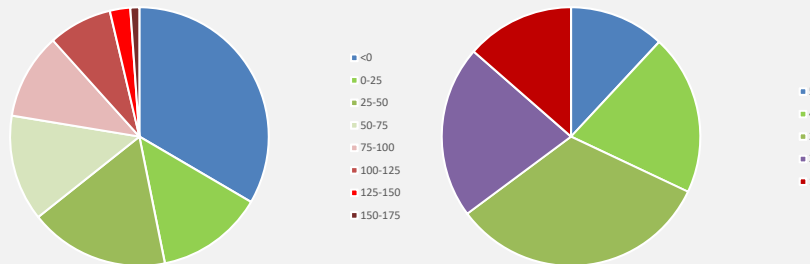
- PAINT & BODY
- INTERIOR
- FRAME/UNIBODY
- MECHANICAL
- TIRES

Vehicle Condition

Created Excel based Asset Management Tool to assess vehicles based on physical condition and maintenance cost



Comparison PTMS Points and Physical Condition





TAM COMMITTEE SURVEY

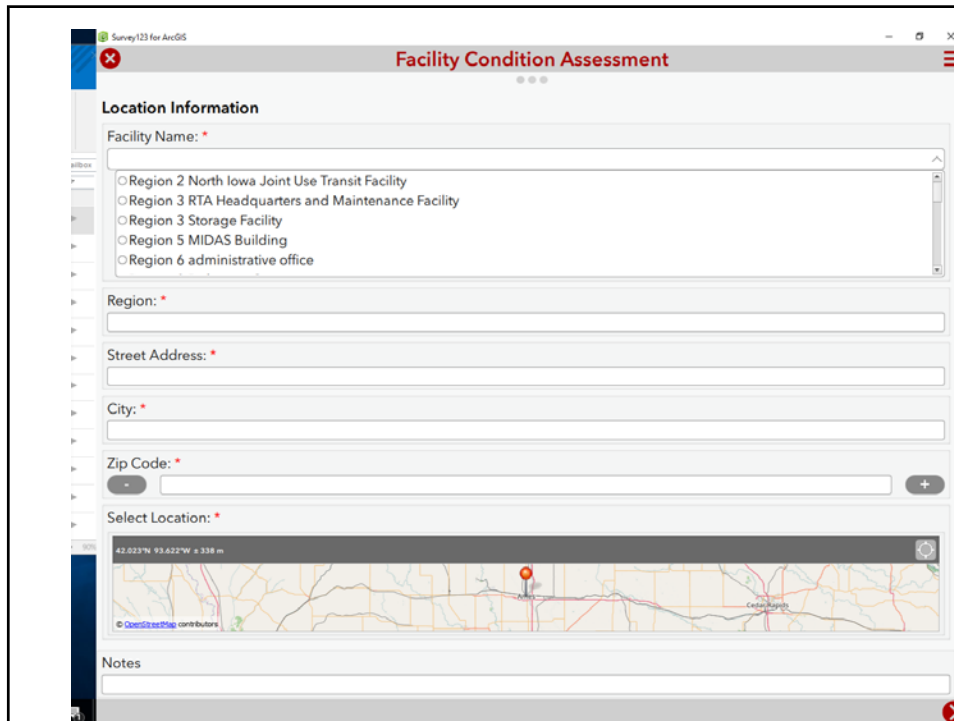
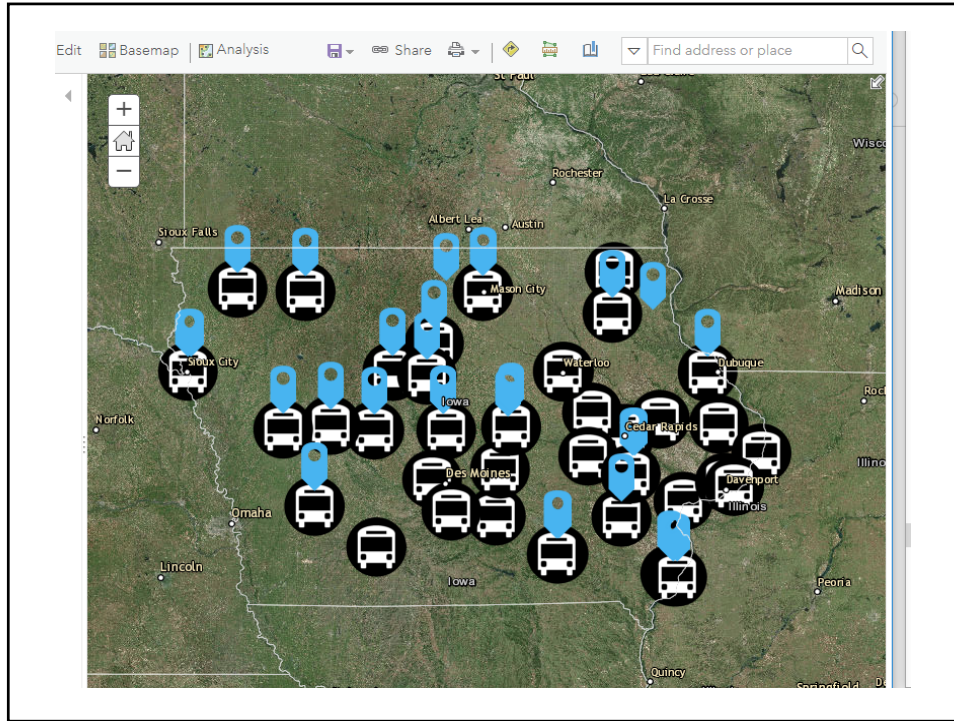
Sent to 23 agencies to get baseline asset management practices currently in place

Facility inventory data collected based on NTD requirements

Facility condition assessments were performed in summer 2018 on 40 buildings using Iowa-DOT-developed app that works on iPads or Android devices. App developed to closely follow guidance from FTA's *TAM Facilities Performance Measure Reporting Guidebook*

State of Iowa Transit Asset Management App for Facilities Condition Assessment

(will work with iPad or Android tablets)



✕
Facility Condition Assessment
☰

▼ **Condition Assessment**

Date of Assessment:
 ✕


Overall Condition Rating:

- ▶ **A. Substructure**
- ▶ **B. Shell**
- ▶ **C. Interiors**
- ▶ **D. Conveyance**
- ▶ **E. Plumbing**
- ▶ **F. HVAC**
- ▶ **G. Fire Protection**

✔

Survey123 for ArcGIS
Facility Condition Assessment

▼ **A. Substructure**

Component	Rating	Description
<div style="display: flex; align-items: center;"> <div style="width: 20px;"> <ul style="list-style-type: none"> • Foundation • Basement </div>  </div>	5: Excellent	New construction, no visible defects.
	4: Good	Minor improvement or superficial repairs needed, can be addressed through routine maintenance. No significant visible damage such as cracking, spalling, sagging, rust, or shifting.
	3: Adequate	Needs some repair. There may be surface cracking, rust, shifting, and spalling on components. Insulation or drainage may need maintenance. Substructure is cosmetically "fair", and functioning as designed, within useful life.
	2: Marginal	Components need extensive repair at a minimum. They show signs of significant cracking, sagging, rust, shifting, and spalling / decay. Significant insulation or drainage issues may be present. There are no apparent safety issues, however. Components are functional but have exceeded their useful lives.
	1: Poor	Components show critical defects affecting function, health, or safety. They are visibly in poor condition. They cannot be repaired; must be replaced. They have exceeded their useful life and warrant structural review.

Survey123 for ArcGIS

Facility Condition Assessment

Substructure Subtotal:
3.5

Foundations *
(such as walls, columns, pilings, etc.)

Not Applicable Poor Marginal Adequate Good Excellent

Basement *
(such as materials, insulation, slab, floor underpinnings)

Not Applicable Poor Marginal Adequate **Good** Excellent

Substructure Notes
Include any relevant notes in regards to the substructure category

Substructure Photo
Include any relevant photos in regards to the substructure category

- ▶ **B. Shell**
- ▶ **C. Interiors**
- ▶ **D. Conveyance**
- ▶ **E. Plumbing**
- ▶ **F. HVAC**
- ▶ **G. Fire Protection**

Survey123 for ArcGIS

Facility Condition Assessment

Shell Subtotal:
3.75

Superstructure/structural frame *
(e.g. Columns, pillars, walls)

Not Applicable Poor Marginal Adequate Good Excellent

Roof *
(roof surface, gutters, eaves, skylights, chimney surrounds)

Not Applicable Poor Marginal Adequate Good Excellent

Exterior *
(windows, doors, and all finishes such as paint and masonry)

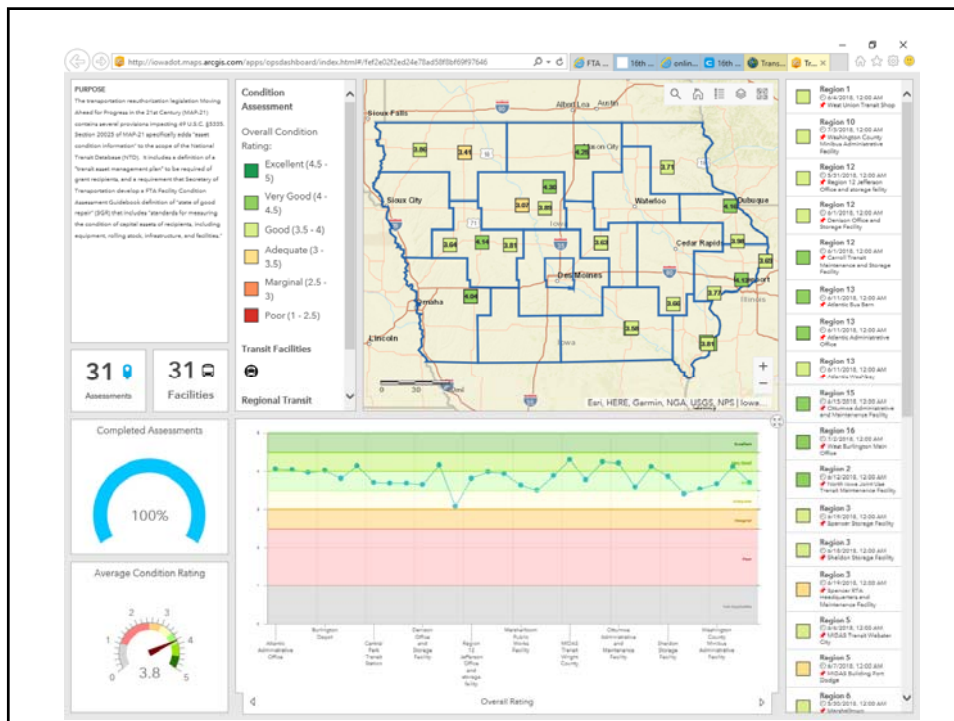
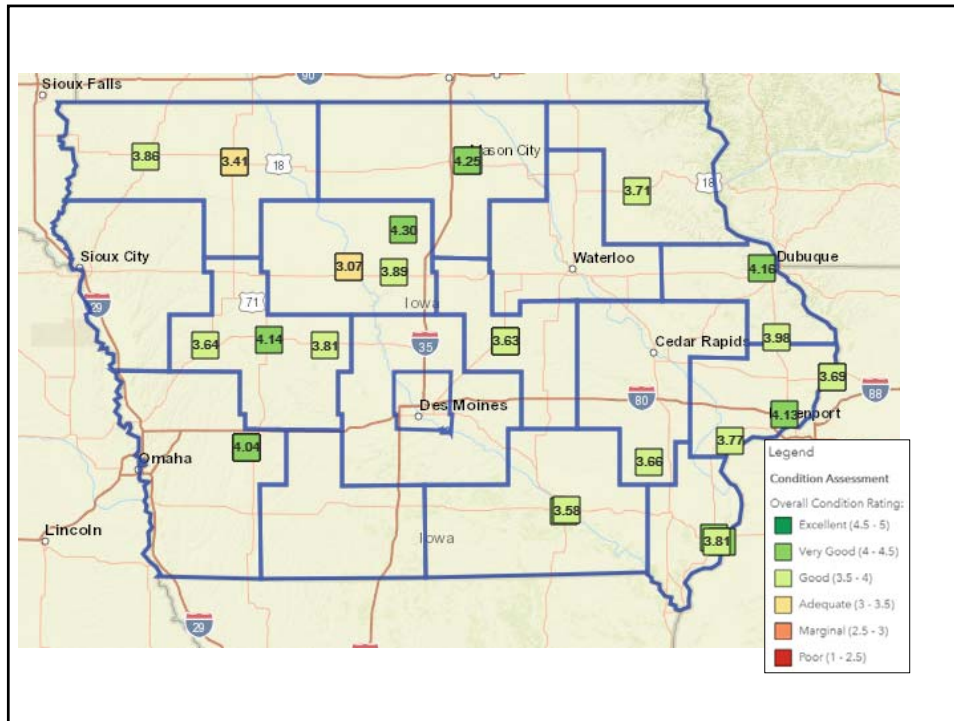
Not Applicable Poor Marginal Adequate Good Excellent

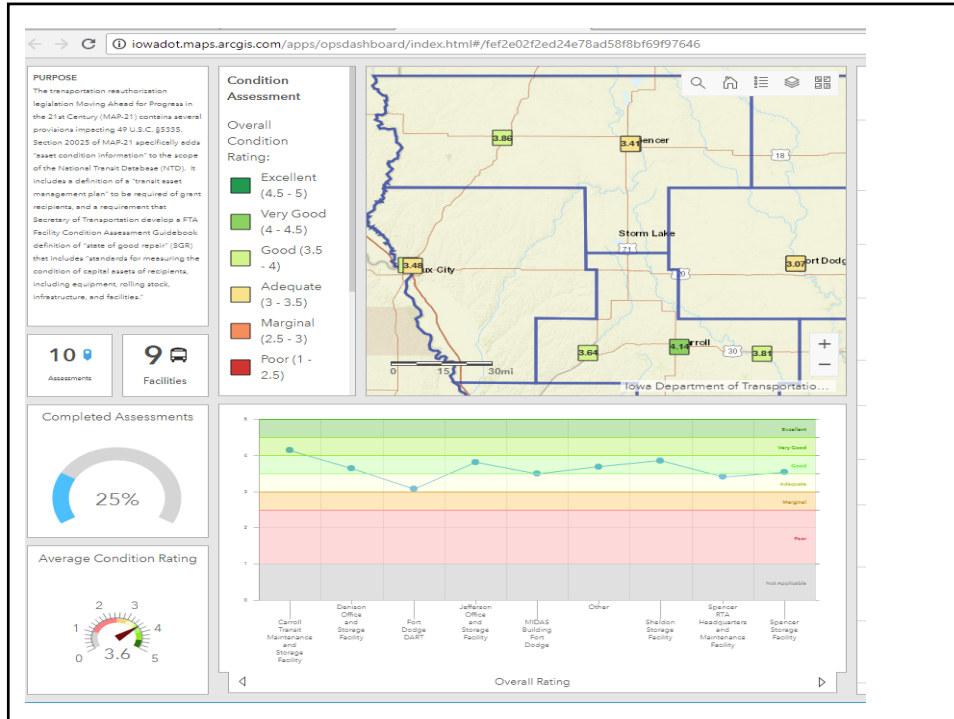
Shell appurtenances *
(balconies, fire escapes, gutters, downspouts)

Not Applicable Poor Marginal Adequate **Good** Excellent

- ▶ **C. Interiors**
- ▶ **D. Conveyance**

* High risk for failure plus historical data may be replaced rather than repaired. They have exceeded their useful life and warrant structural review.





FACILITY ASSESSMENTS

Summer intern did facility assessments on 31 buildings at 19 transit agencies for group TAM Plan

Median Overall Condition for all group member facilities: 3.8

The Iowa DOT Facility Condition Assessment App as feature in an FTA Case Study
https://www.transit.dot.gov/TAM/Iowa_Condition_Assessment



 CONTACT INFORMATION

THANK YOU!

Office of Public Transit

Sree Mitra
Phone: 515 239-1806
Sreeparna.mitra@iowadot.us

Office of Systems
Planning

Joe Drahos
Phone: 515 239-1772
Joseph.Drahos@iowadot.us