



# Fleet Unity Plan: Update on Electric Vehicles

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GOVERNMENTAL OPERATIONS STANDING COMMITTEE

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# Background and Overview

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- Vehicles are critical tools in providing effective municipal services
- Preliminary planning discussions for data driven continuous improvement in fleet management of the 1,976 vehicles: Winter 2020-21
- Fleet of the Future Kickoff: April 2021
- Work Group meetings: Summer 2021
  - Standard for Readiness and Prioritization Planning
  - Fleet Right-sizing and Balancing
  - Fleet Purchase Financing
  - Fleet Staffing and Annual O&M Planning
- City Audits
  - 2015-04 Richmond Department of Public Works FLEET SERVICES DIVISION January 13, 2015
  - 2019-09 Richmond Fire Department Fire Apparatus and Equipment Audit March 1, 2019
  - 2021-03 Citywide - Vehicle Utilization Audit July 20, 2020
- Draft Fleet Unity Plan distributed for review: October 2021



# Purpose of the Fleet Unity Plan

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- Inform current and future decision making
- Establish citywide priorities and strategies related to Fleet
  - Optimal composition
  - Delivery of critical services

## FY23 Priorities

- Big Move 1 – Adopt Professional Standards for Reliability
- Big Move 2 – Fleet Dominated by Electric Vehicles
- Big Move 3 – Properly Resource Fleet Management Division
- Big Move 4 – Balance and Right Size Fleet
- Big Move 7 – Fixed and Variable Rate Reimbursement (FAVR)



# Core Concepts

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- Professional Fleet Management operations of the internal service fund
- Assessing the Current State of the Municipal Fleet
- Planning for the Future Municipal Fleet
  - Prioritization by Data
  - Rolling 5 Year Budget
  - Acquisition Phases
  - Additional Planning Considerations
    - Vehicle need from space planning and workforce of the future
    - Vehicle usage at new or renewed facilities and campus
    - Accounting for the life cycle of the vehicle through decommissioning
    - Specialty vehicles for core services
    - Upfit processes
    - Procurement



# Big Moves

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1. Adopt Professional Standards for Reliability\*
2. Fleet Dominated by Electric Vehicles\*
3. Properly Resource Fleet Management Division\*
4. Balance and Right-size Fleet\*
5. Strategic Financing
6. Incorporate Technology and Innovation
7. Fixed and Variable Rate Reimbursement (FAVR)\*



*\*Top priorities for FY23 while concurrently working on remaining Big Moves for FY23-28*



# Big Move 1: Adopt Professional Standards for Reliability

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- Professional standards for reliability based on:
  - Class
  - Function
  - Departmental requirements
- Key Critical Fleet
  - Public Safety
  - Waste Management
  - Emergency
  - Reserve vehicles
- Vehicle Replacement



*\*FY23 Priority*



# Big Move 2: Fleet Dominated by Electric Vehicles

- Alignment with:
  - Richmond Equity Agenda
  - RVAgreen2050
  - Richmond Clean and Green Fleet Report
- Passenger/Light Duty (Class 2&3) Transition
- Necessary Infrastructure
  - Grid connection
  - Appropriate hardware
  - Battery storage and disposal
  - Management of charging operations
  - *Fleet Unity Plan calls for FY23 and FY24 funding for charging infrastructure*

Richmond Clean and Green Fleet Report Five Action Items for Success	
Action 1	Sustainable Fleet Plan through Green Vehicle Procurement
Action 2	Develop Comprehensive Electric Vehicle Charging Infrastructure
Action 3	Maintenance, Education and Training
Action 4	Champion Fuel Reduction Initiatives
Action 5	Expand Green Fleet Initiative in the Future

*\*FY23 Priority*



# Big Move 3: Properly Resource Fleet Management Division

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- DPW Fleet Management ranked 10th in the 100 Best Fleets by the Fleet Management Association (2021)
- Implementation of Fleet Unity Plan requires adequate resourcing:
  - Staffing
  - Training
  - Equipment
  - Staff-to-Vehicle ratio
- Reliance on Fleet Management expertise in decision-making



*\*FY23 Priority*





# Big Move 4: Balance and Right-size Fleet

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- Achieve optimal size and composition of fleet
  - Effective service delivery
  - Efficient use of resources
- Informed by:
  - Space Needs Study
  - Recurring assessment of functional needs in alignment with Work Plans

## Fleet Balancing Assessment – Possible Outcomes

- Additional or different classification vehicles assigned based on need
- Vehicles re-assigned or rotated between functional areas based on use
- Increased use of Motor Pool as appropriate
- Use of privately-owned vehicles in lieu of assigned vehicles (potential stipend vs. mileage reimbursement)

*\*FY23 Priority*



# Big Move 5: Strategic Financing

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- Recurring funding in annual budget
- Strategic multi-year schedule of new fleet purchases
- Cash funding
- Special fund, Internal service fund, Enterprise fund
- Reserve fund accumulations
- Lease options
- Bond referendum
- Upfit costs funded as part of total vehicle costs



# Big Move 6: Incorporate Technology and Innovation

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- Need to adapt over time to new technologies and efficient business solutions, including:
  - Green technology
  - Vehicle automation
  - Vehicle Wi-Fi / Hotspot
  - GPS and smart routes
  - Analysis of vehicle adaptations to better serve the City
    - Sound, size, pitch, roll, yaw
  - Fuel projection and cost predictors
  - Alternate forms of transportation
    - Bicycle, boat, motorcycle, micro-mobility



# Big Move 7: Fixed and Variable Rate Reimbursement (FAVR)

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- Review in accordance with Fleet Balancing
- Consider FAVR options for existing personal vehicle assignments, as appropriate

*\*FY23 Priority*



# Next Steps for FY23

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- **Big Move 1:** Adopt Professional Standards for Reliability
  - Adopt the 5-year Plan for RFD Trucks and Ladders
- **Big Move 2:** Fleet Dominated by Electric Vehicles
  - Electric Charging and Storage Infrastructure
    - Utility scale
    - Level One Charging. (120 Volts), Level Two Charging. (240 Volts), DC Fast Charging. (480 Volts)
    - Front of the meter and behind the meter battery storage
- **Big Move 3:** Properly Resource Fleet Management Division
- **Big Move 4:** Balance and Right-size Fleet
  - Fleet Balancing SOP for FY24
- **Big Move 7:** Fixed and Variable Rate Reimbursement (FAVR)

*Concurrently working on remaining Big Moves for FY23-28*



# Fleet Capital Investment Plan FY23 - FY24

Department	FY22	FY23	FY24	total units
RPD	\$1,867,300.00	\$4,637,300.00	\$5,168,400.00	312
Refuse	\$56,800.00	\$3,750,500.00	\$3,822,000.00	28
Bulk and Brush	\$0.00	\$170,000.00	\$0.00	1
Fire	\$2,922,000.00	\$17,934,173.70	\$10,772,171.00	40
Snow	\$133,900.00	\$2,896,257.00	\$2,270,944.00	38
Total	\$4,980,000.00	\$29,388,230.70	\$22,033,515.00	419
Fleet Scale EV Charging Infrastructure and Storage	\$0.00	\$250,000.00	\$250,000.00	NA

Notes on capital fleet purchases for FY23 - FY24:

- Total vehicles 21% of the fleet
- No new class 2 or class 3 vehicles are proposed beyond this plan
- Requests for class 2 or class 3 vehicles will be reviewed by fleet management and addressed through fleet balancing SOP
- Vehicles proposed to be added to the fleet from grant proceeds must be communicated with fleet management before application for resourcing for operations and maintenance of the vehicle



# *Discussion and Questions*

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