PRINCE WILLIAM COUNTY

Prince William County, Virginia
Internal Audit Report – Fleet Management

December 2, 2020

RSM

PRINCE WILLIAM COUNTY

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RSM

TRANSMITTAL LETTER

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December 2, 2020

The Board Audit Committee of
Prince William County, Virginia
1 County Complex Court
Prince William, Virginia 22192

Pursuant to the internal audit plan for calendar year ending ("CY") 2020 for Prince William County, Virginia ("County" / "PWC"), approved by the Board of County Supervisors ("BOCS"), we hereby present the internal audit of Fleet Management. We will be presenting this report to the Board Audit Committee of Prince William County at the next scheduled meeting on December 15, 2020.

Our report is organized into the following sections:

Executive Summary	This provides a high-level overview and summary of the observations noted in this internal audit, as well as the respective risk ratings.
Background	This provides an overview of the function within the process, as well as pertinent operational control points and related compliance requirements.
Objectives and Approach	The objectives of this internal audit are expanded upon in this section, as well as the various phases of our approach.
Observations Matrix	This section gives a description of the observations noted during this internal audit and recommended actions, as well as Management's response including the responsible party, and estimated completion date.
Process Maps	This section provides a visual depiction of the workflow of key processes as currently performed.

We would like to thank the staff and all those involved in assisting our firm with this internal audit.

Respectfully Submitted,

RSM US LLP

Internal Audit

PRINCE WILLIAM COUNTY

EXECUTIVE SUMMARY

Background

The Prince William County ("PWC") Fleet Management division is responsible for a comprehensive program of fleet-related processes including acquisition, replacement, maintenance, repairs, and fueling of vehicles and mechanized equipment. Fleet Management operations span multiple organizational functional areas, including: accounting, administration, customer service, parts, and maintenance.

Fleet Management has a mission to provide safe and environmentally responsible services that include the acquisition, maintenance, fueling, and disposal of vehicles and mechanized equipment.

As of July 21, Fleet Management maintained 1,437 vehicles. The County's diverse light fleet includes: sedans, sport utility vehicles (SUVs), vans, motorcycles, and pick-up trucks.

Beginning November 1, 2019, Fleet Management implemented the "AssetWorks" software system to store and manage all Fleet-related asset information. In addition to general vehicle details (including mileage and vehicle status), all activities and costs related to maintenance, fuel, and rentals are housed within AssetWorks. Complete utilization of the system's functionalities is still underway. Effective FY 2021, Fleet Management, along with three other divisions, were repositioned from the Department of Public Works to the new "Department of Facilities & Fleet Management". This reorganization has no net impact on the total budget, with an adopted expenditure budget of $11,972,270 for Fleet Management.

Fieldwork was performed June through July 2020.

Overall Summary / Highlights

The observations identified during our assessment are detailed within the pages that follow. We have assigned relative risk or value factors to each observation identified. Risk ratings are the evaluation of the severity of the concern and the potential impact on the operations of each item. There are many areas of risk to consider in determining the relative risk rating of an observation, including financial, operational, and/or compliance, as well as public perception or 'brand' risk.

Objectives and Scope

The primary objective of this internal audit was to assess Fleet Management processes related to vehicle purchases, vehicle assignment, capture of applicable maintenance costs, vehicle retirement, and efforts to reduce the fleet's environmental impact.

As part of our internal audit we performed the following:

- Obtained an understanding of the County's Fleet Management processes and internal control structure;
- Obtained an understanding of the systems utilized in Fleet Management and their use throughout Fleet Management processes;
- Reviewed and assessed decision-making processes, including design and documentation, for actions such as vehicle retirement;
- Reviewed the approach to purchasing fleet vehicles and assessing alternative acquisition structures such as leasing arrangements;
- Review the process for vehicle assignment and applicable policies for retaining assigned vehicles;
- Review the data and records related to maintenance (labor and materials) work orders and how Fleet Management utilizes captured costs in strategic planning efforts;
- Analyze efforts to lower the overall environmental impact of the fleet;
- Perform comparative analysis to similar jurisdictions regarding financial data and performance metrics;
- Perform follow-up procedures on open findings in previously issued Fleet internal audit report; and
- Provide recommendations for process improvements.

Where applicable, the testing period utilized was July 1, 2018 through May 31, 2020.

Summary of Observation Ratings
(See page 3 for risk rating definitions)

	High	Moderate	Low
Fleet Management	1	3	3

We would like to thank all County team members who assisted us throughout this audit.

EXECUTIVE SUMMARY – CONTINUED

Observations Summary

The following is a summary of the observations noted in the areas reviewed. Each detailed observation is included in the observation matrix section of the report. Improvement opportunities have been provided following the detailed observations section. Definitions of the rating scale are included below.

Summary of Observations	
Observation	**Rating**
1. Long-Term Initiative Plan	**High**
2. Vehicle Retirement Criteria & Other AssetWorks Functionality	**Moderate**
3. Fleet Data Capture & Performance Monitoring	**Moderate**
4. Work Order Cost Capture & Review	**Moderate**
5. Preventative Maintenance Schedule	**Low**
6. Documentation of Vehicle Additions & Retirements	**Low**
7. Vehicle Auctions – County Personnel Policy	**Low**

Provided below is the observation risk rating definitions for the detailed observations.

Observation Risk Rating Definitions	
Rating	**Explanation**
Low	Observation presents a low risk (i.e., impact on financial statements, internal control environment, brand, or business operations) to the organization for the topic reviewed and/or is of low importance to business success/achievement of goals.
Moderate	Observation presents a moderate risk (i.e., impact on financial statements, internal control environment, brand, or business operations) to the organization for the topic reviewed and/or is of moderate importance to business success/achievement of goals. Action should be in the near term.
High	Observation presents a high risk (i.e., impact on financial statements, internal control environment, brand, or business operations) to the organization for the topic reviewed and/or is of high importance to business success/achievement of goals. Action should be taken immediately.

BACKGROUND

Overview

The Prince William County ("PWC") Fleet Management division is responsible for a comprehensive program of fleet-related processes including: acquisition, replacement, maintenance, repairs, and fueling of vehicles and mechanized equipment. Fleet Management operations span across multiple organizational functional areas, including: accounting, administration, customer service, parts, and maintenance.

Fleet Management has a mission to provide safe and environmentally responsible services that include the acquisition, maintenance, fueling and surplus of vehicles and mechanized equipment.

Beginning November 1, 2019, Fleet Management implemented the "AssetWorks" software system to store and manage all fleet-related asset information. In addition to general vehicle details (including mileage and vehicle status), all activities and costs related to maintenance, fuel, and rentals are housed within AssetWorks. Complete utilization of the system's functionalities is still in process.

Effective FY 2021, Fleet Management, along with Buildings & Grounds, Facilities Construction Management, and Property Management, were repositioned from the Public Works department to the new "Department of Facilities & Fleet Management". This reorganization has no material impact on the total budget, with an adopted FY 2021 expenditure budget of $11,972,270 for Fleet Management. Historic budget allocations and staffing levels are illustrated below, along with the full Fleet Management organizational chart on the following page.

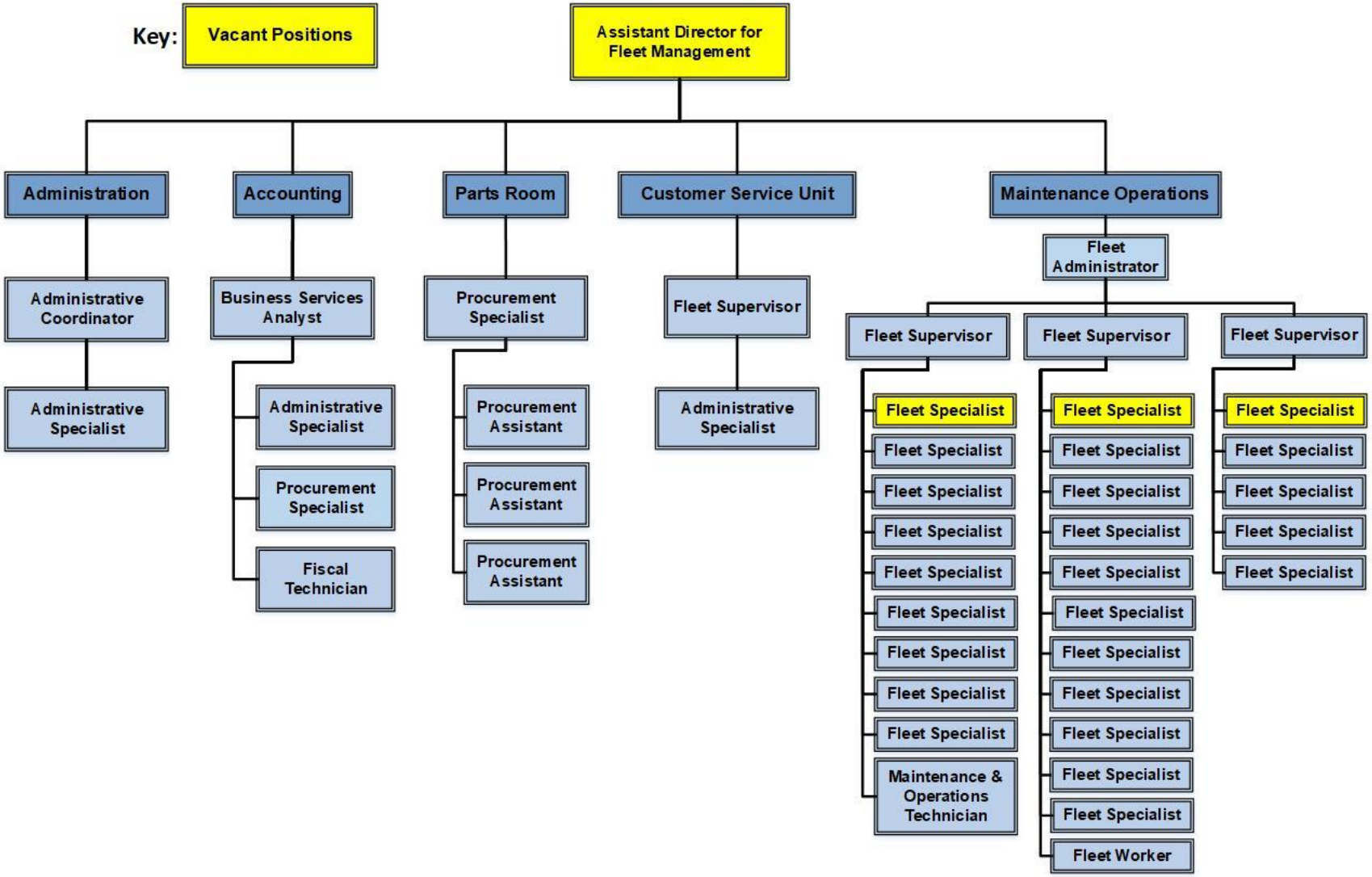
Fiscal Year	Fleet Management Budget Allocation	FTE
FY 2017 Actual	$10,328,019	35.15
FY 2018 Actual	$9,263,362	35.15
FY 2019 Actual	$11,973,810	35.15
FY 2020 Adopted	$12,237,289	44.41†
FY 2021 Adopted*	$11,972,270	44.00

*As noted above, Fleet Management shifted from the Public Works department to a new "Facilities & Fleet Management" department as of 7/1/20.
†In FY 2020 Fleet & Equipment Repair (previously under DPRT) merged into the Fleet program under the Department of Public Works. This includes a budget shift of approximately $1.4 million and 9.26 FTEs.

PRINCE WILLIAM COUNTY

BACKGROUND – CONTINUED

Organization Chart



BACKGROUND – CONTINUED

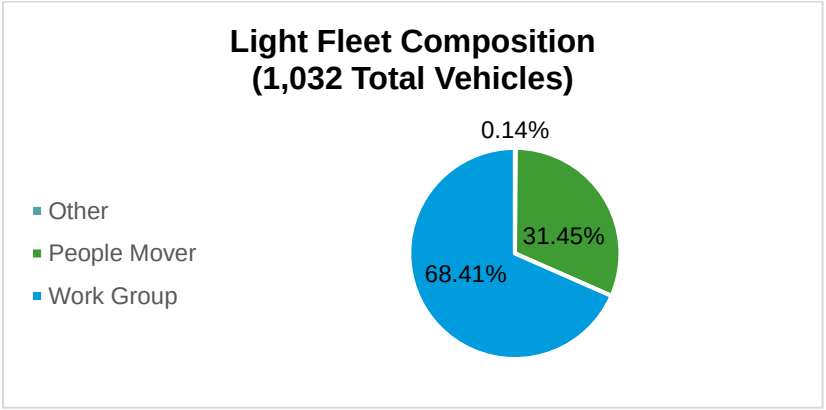
Fleet Composition

The current County light fleet, defined as passenger cars and light trucks: minivans, passenger vans, pickup trucks, and SUVs usually weighing less than 8,500 pounds, consists of 1,032 vehicles which include a diverse mix of vehicles allocated across 74 departments, agencies, bureaus, and divisions. The light fleet vehicles are primarily utilized to transport people or goods, however, the vehicles also provide mobile marketing, as each vehicle is branded with the Prince William County logo to serve as identification and a representation of the constant and helpful presence of local employees.

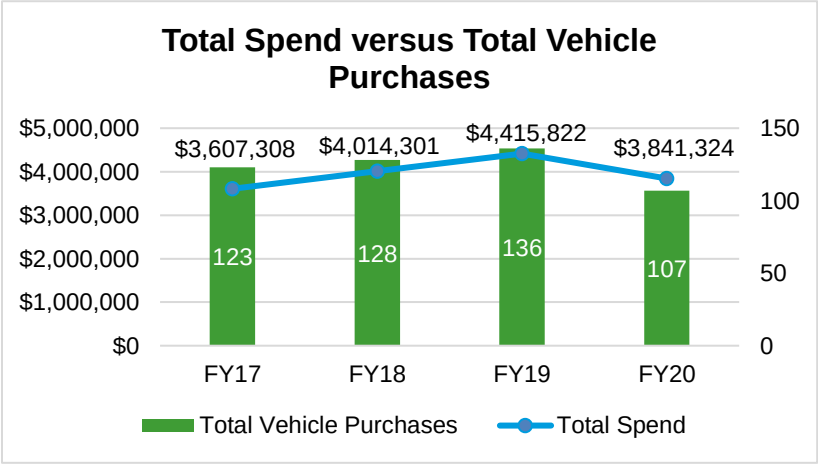
Specifically, we have categorized light fleet vehicles as “people movers”, “work group”, or “other”. Each group is defined below and illustrated in the ‘Fleet Composition’ graph. The majority of the active light fleet falls into the work group category.

Light Fleet Legend

- A *people mover* is defined as a vehicle used for travel between work sites.
- A *work group* vehicle is defined as a vehicle required for technician use (i.e. trucks used as an employee’s tool) or specialized vehicles transporting staff or cargo to a work site.
- *Other* is defined as any vehicle that does not fall into the two categories above.



The following chart shows light fleet vehicle purchases since FY 2017. As vehicles are retired, replacement vehicles must be purchased to maintain the appropriate vehicle mix across the County. See page 9, “Vehicle Replacement” section of the background for additional information.



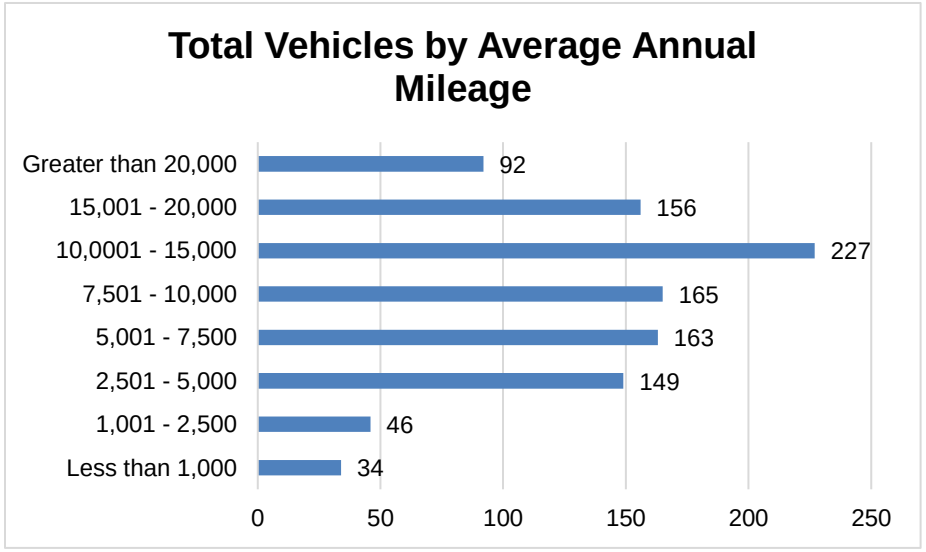
BACKGROUND – CONTINUED

Fleet Composition – continued

Age and mileage of the fleet vehicles are important considerations to be made when assessing the reliability of the fleet as a whole. As of July 21, 2020, 29% of vehicles have less than 25,000 miles and 80% have less than 100,000 miles traveled. Per AssetWorks records, ~8% of vehicles have traveled less than an 2,500 miles per year.

Total Vehicles by Odometer Mileage		
Odometer Mileage	**# of Vehicles**	**% of Fleet**
< 5,000	75	7%
5,000 – 10,000	62	6%
10,001 - 25,000	167	16%
25,001 - 50,000	209	20%
50,0001 - 75,000	177	17%
75,001 -100,000	142	14%
100,001 - 125,000	126	12%
125,001 - 150,000	65	6%
> 150,000	9	1%

Total Vehicles by Age		
Vehicle Age	**# of Vehicles**	**% of Fleet**
< 1 year	54	5%
1-2 years	200	19%
3-5 years	306	30%
6-10 years	290	28%
11-20 years	171	17%
21-30 years	8	<1%
31+ years	3	<1%



BACKGROUND – CONTINUED

Fleet Composition – continued

The use of vehicles depends on the need of the specific department, division, bureau, or agency. As reflected in the below chart, Police, Fire & Rescue, and Public Works together represent the greatest share of vehicles in the County's light fleet.

Top Ten Departments by Light Fleet[2]

County Department/Division	# of Vehicles	Vehicle Purchases[1] (FY 2017 – FY 2020)	Vehicle Replacements (FY 2017 – FY 2020)	Vehicle Additions (FY 2017 – FY 2020)
Police	558	192	82%	18%
Public Works	117	51	53%	47%
Fire & Rescue	56	33	82%	18%
Sheriff's Office	52	28	61%	39%
Social Services	34	22	100%	0%
Parks, Recreation & Tourism	33	38	55%	45%
Facilities & Fleet Management	22	22	91%	9%
Neighborhood Services	21	13	100%	0%
Adult Detention Center	19	4	50%	50%

[1]Vehicle purchases are either vehicle replacements or additions to the Department's light fleet ("Vehicle Additions")
[2]Motor pool vehicles are included in this data set

BACKGROUND – CONTINUED

AssetWorks

As of November 2019, the division implemented a new Fleet Management system called AssetWorks. The system includes functionality to support all Fleet Management needs including procurement of vehicles, billing, warranties, repair and maintenance, work orders, and performance analysis.

The AssetWorks system includes the capacity for a more robust scoring system to identify vehicles for potential replacement. Below is the replacement score criteria that is currently being developed to incorporate as part of the vehicle replacement decision-making process.

Vehicle Replacement

Currently, vehicle replcement is based on the mileage of each vehicle. Most vehicles are candidates for replacement once they reach 140,000 miles, however some vehicles may be more or less. Shown below is a chart showing the replacement mileage thresholds based on department (public safety versus non-public safety) and the type of vehicle. Once a vehicle reaches this mileage threshold, a discussion is initiated by Fleet Management with the department that owns the vehicle to decide whether to replace, or if continued use is appropriate. Fleet Management and the department may also decide to retire vehicles that have not reached the established mileage threshold, but have incurred excessive repair costs, demonstrated a record of poor reliability.

Target Mileage Thresholds		
Department	Vehicle	Target Mileage
County Police	Motorcycle	50,000
County Police	Patrol Cruiser	120,000
County Police	Admin Sedan	130,000
County Police	Sport Utility Vehicle	140,000
County Police	Pick Up & Van	140,000
Sheriff	Patrol Cruiser	120,000
Sheriff	Admin Sedan	130,000
Sheriff	Sport Utility Vehicle	140,000
Sheriff	Pick Up & Van	140,000
Fire & Rescue	Admin Sedan	140,000
Fire & Rescue	Sport Utility Vehicle	140,000
Fire & Rescue	Pick Up & Van	140,000
Fire & Rescue	Medic	170,000
Regional Jail	Patrol Cruiser	120,000
Regional Jail	Admin Sedan	130,000
Regional Jail	Sport Utility Vehicle	140,000
Regional Jail	Pick Up & Van	140,000
General Government	All Vehicles	140,000

BACKGROUND – CONTINUED

Vehicle Replacement – continued

AssetWorks includes functionality that is customazible based upon the preferred scoring system for vehicle replacement. Below is an example replacement score criteria that could be utilized by the County, and has been circulated in preliminary discussions to bring this functionality online.

Replacement Guidelines – To be implemented		
Factor	**Points**	**Description**
Age	1	Each year of chronological age.
Miles/Hours	1	Each 10,000 miles of usage.
	1	Each 250 hours of usage.
Type of Service	1	Standard sedans and light pickups. Class codes affected 1000,1050,1100,1300,1500,1550,1600,2000,2050,2100,2200.
	2	Standard vehicles with occasional off-road usage. Class codes affected 2001, 2051, 2101, 2150, 2155.
	3	Any vehicle that pulls trailers, hauls heavy loads, and has continued off-road usage.
	4	Any vehicle involved in snow removal. Class codes affected 2101, 2200, 2250, 2300, 2301.
	5	Police, Fire, and Rescue service vehicles. Class codes affected 1150, 1200, 1250, 1650, 5000 series codes.
Reliability (PM work is not included)	1	In shop one time within three month time period, no major breakdowns or road calls.
	2	In shop one time within three month time period, 1 breakdown/road call within 3 month time period.
	3	In shop more than twice within one month time period, no major breakdowns or road calls.
	4	In shop more than once within one month time period, two or more breakdowns/road calls within same time period.
	5	In shop more than twice monthly, two or more breakdowns within one month time period.

BACKGROUND – CONTINUED

Vehicle Replacement – continued

Replacement Guidelines – To be implemented (continued)		
Factor	**Points**	**Description**
M&R Costs (Accident repairs not included)	1	Maintenance costs are less than or equal to 20% of replacement cost.
	2	Maintenance costs are 21-40% of replacement cost.
	3	Maintenance costs are 41-60% of replacement cost.
	4	Maintenance costs are 61-80% of replacement cost.
	5	Maintenance costs are greater than or equal to 81% of replacement cost.
Condition	1	No visual damage or rust and a good drive train.
	2	Minor imperfections in body and paint, interior fair (no rips, tears, burns), and a good drive train.
	3	Noticeable imperfections in body and paint surface, some minor rust, minor damage from add-on equipment, worn interior, (one or more rips, tears, burns), and a weak or noisy drive train.
	4	Previous accident damage, poor paint and body condition, rust (holes), bad interior (tears, rips, cracked dash), major damage from on equipment, and one drive train component bad.
	5	Previous accident damage, poor paint, bad interior, drive train that is damaged or inoperative, and major damage from add-on equipment.

Point Ranges		
0 – 17	Excellent	Do not replace
18 – 22	Good	Re-evaluate for next year's budget
23 – 27	Satisfactory	Qualifies for replacement this year if budget allows
28+	Poor	Needs priority replacement

BACKGROUND – CONTINUED

Comparative Analysis: Vehicle Availability

Vehicle availablity is one of the primary measures that can indicate the success of a Fleet Management operation. Over the last five fiscal years, PWC has improved its vehicle availability by 4%, and is in line with other similar jurisdictions.

Fleet Availability					
Jurisdiction	**FY 2017 Actual**	**FY 2018 Actual**	**FY 2019 Actual**	**FY 2020 Adopted**	**FY 2021 Adopted**
Prince William County	**91%**	**87%**	**97%**	**94%[1]**	**95%**
Fairfax County	98%	98%	96%	96%	96%
Alexandria City	95%	90%	95%	95%	95%
Montgomery County (MD)	96%	96%	98%	97%	97%
Prince George's County (MD)	95%	95%	96%	96%	96%

[1] This number represents the County's actual fleet availability percentage for FY 2020, whereas the FY 2020 percentages for other jurisdictions reflect adopted budget numbers.

OBJECTIVES AND APPROACH

Objectives

The primary objective of this internal audit was to assess Fleet Management processes related to vehicle retirement, vehicle purchases, vehicle assignment, capture of applicable maintenance costs, and efforts to reduce the fleet's environmental impact. The scope of this internal audit encompassed current Fleet Management operations, as well as vehicle purchases, retirements, and financial data from July 1, 2018 through May 31, 2020.

Approach

Our audit approach was consistent with our internal audit methodology, which included the following phases:

Understanding and Documentation of the Process

We conducted interviews with the appropriate representatives from Fleet Management to discuss the scope and objectives of the audit work, obtain preliminary data, and establish working arrangements. We obtained and reviewed: 1) copies of financial information, 2) applicable Code of Virginia and County policies related to this internal audit, and 3) other documents deemed necessary. We performed walkthroughs of the process(es) and key controls to gain an understanding of the function and assess the design of the process/key controls.

Evaluation of the Process and Controls Design and Testing of Operating Effectiveness

The purpose of this phase was to assess the efficiency and effectiveness of Fleet Management processes. As needed, testing was conducted utilizing sampling and other auditing techniques to meet our audit objectives. Procedures included the following:

- Gained an understanding of the County's Fleet Management processes and internal control structure;
- Gained an understanding of the systems utilized in Fleet Management and their use throughout Fleet Management processes;
- Reviewed and assessed decision-making process, including design and documentation, for actions such as vehicle retirement;
- Reviewed the approach to purchase fleet vehicles and assess alternative structures such as leasing arrangements;
- Reviewed the process for vehicle assignment and applicable policies for retaining assigned vehicles;
- Reviewed the data and records related to maintenance (labor and materials) work orders and how Fleet Management utilizes captured costs in strategic planning efforts;
- Analyzed the composition of the current County fleet and determine if vehicle mix is appropriate;
- Assessed County efforts to lower fleets environmental impact;
- Performed comparative analysis to similar jurisdictions regarding financial data and performance metrics; and
- Provided recommendations for process improvements.

Reporting

At the conclusion of this audit, we summarized our findings into this report. We conducted an exit meeting with the appropriate Management personnel, and have incorporated Management's response into this report.

OBSERVATIONS MATRIX

Observation	1. Long-Term Initiative Plan
High	As part of our review, we noted a number of planned and in process improvement activities, many of which are related to the ongoing adoption of AssetWorks and the incorporation of its available functionalities. These activities lacked formally defined goals and did not include documented timelines or milestones. Fleet Management does not maintain a documented long-term plan to capture planned initiatives, objectives, goals, timelines, milestones, and other considerations relevant to the function's success. A long-term plan specific to Fleet Management helps enable continuous improvement related to cost savings and optimization. Functioning long-term planning coupled with accurate data may allow for: • Evaluation of the light fleet size and composition to maximize the use of each vehicle; • Consideration of alternative light fleet vehicle acquisition options; • Potential increased efficiency and cost effectiveness of the light fleet vehicles; and • Achievement of other operational goals and objectives. The lack of specificity related to the adoption of planned and in-process activities and objectives makes it difficult for Fleet Management to hold itself accountable for the attainment of goals that could help the department identify opportunities to reduce capital spending on vehicle replacements and additions, and could help alignment with any future County goals for adopting fleet-related Green initiatives.
Recommendation	Fleet Management should formally document a Long-Term Initiative Plan ("Plan") that details each of the department's goals and planned/in-process activities. The Plan should identify each of the County and Fleet Management goals for the division, and specific to the light fleet. Each goal should be supported by all of the related activities, both planned, and in-process. Each activity should include a description that details the way in which the activity would support the goal, the data or metrics that would result from the activity, and provide a timeline and due date for the completion of the activity. A comprehensive Plan would also help Fleet Management to address some of the findings included in this report. Specifically, we recommend that Fleet Management's plan include current initiatives such as the revision of vehicle replacement criteria and enhanced performance monitoring, which are captured in subsequent observations, as well as other planned initiatives including, but not be limited to, the following activities: Evaluation of Light Fleet Vehicle Acquisition Alternatives One recommended goal for Fleet Management is to determine whether buying new or replacement light fleet vehicles is the optimal solution in each instance, or if there are alternatives to purchasing that could lead to reductions in light fleet vehicle spending, and could result in cost savings in other department functions. Fleet Management should expand upon this effort and conduct a comprehensive analysis of vehicle acquisition methods, and the costs and savings that could be provided by each method. In order to be effective, a comprehensive analysis would have to consider all of the costs that go into acquiring, maintaining, and disposing of light fleet vehicles – whether purchased or leased, as well as the potential use of renting vehicles and/or reimbursing employees for the use of their personal vehicles. A robust analysis would include many different elements, to include the following: • The impact of Fleet Management's current and planned thresholds for light fleet vehicle replacement; • The impact of mileage versus age on vehicle replacement (i.e., vehicles that are not driven much could remain in the fleet for a longer period of time, whereas leased vehicles get turned in when the lease ends. Conversely, vehicles that are driven more would still be under lease and would negate the reliability/maintenance savings of replacing vehicles);

OBSERVATIONS MATRIX – CONTINUED

Observation	1. Long-Term Initiative Plan – continued

Recommendation – continued	• The financial impact of capital funding for purchasing light fleet vehicles, versus the use of operating funds for leasing/renting;
	• Mileage incurred by vehicles within each owning department, and departments that utilize Fleet Management-owned vehicles;
	• The costs committed to the adoption of the AssetWorks functionalities such as light fleet vehicle replacement scoring and other metrics designed to improve vehicle reliability. Leasing would reduce/eliminate the need for some of that paid-for functionality;
	• The total cost of light fleet vehicle ownership that would include maintenance and repair parts and labor costs (by vehicle make/model and by year), and the amount recovered from vehicle sales through disposal; and
	• The Fleet Management costs that are incurred in support of light fleet vehicle ownership that, to be accurate, would need to consider the time and labor spent on significant department "front office" functions, such as:
	  ○ Procuring vehicles
	  ○ Titling and registering vehicles (and renewals)
	  ○ Coordinating vehicle disposals
	
	The reliability and utility of the conclusions that could be provided through an analysis such as this would be directly related to the amount and quality of the information and data gathered for inclusion in the analysis.
	
	<u>Attaining Green Fleet Goals</u>
	
	Recognized as one of the "100 Best Fleets" Programs in 2019 and 2020 at the Green Fleet Awards, Prince William County was ranked #41 out of 50 fleets. Having moved seven spots up since their #48 position in the 2018 Green Fleet Awards, it is evident that the County's Fleet Management has continued to make strides in environmental and green initiatives. Additionally, the Prince William Fleet is recognized by the Virginia Department of Environmental Quality as E3, or "Exemplary Environmental Enterprise" status. However, per discussion with the Fleet Business Service Analyst, there are currently no formalized green-specific fleet composition targets or other goals that would guide the County's fleet sustainability activities.
	
	The environmental initiatives presently exist as informal, common knowledge among the division. Other local jurisdictions, such as Fairfax County and Arlington County, have formalized their energy efficiency and sustainability initiatives to inform their County operations. These County-wide objectives relate to numerous facets of their operations, including those that are Fleet-related.
	
	We recommend Fleet Management formally define and quantify these goals and efforts in an official manner to catalyze mutual understanding, goal alignment, and accountability.
	
	Refer to Appendix A on pages 34 and 35 for supplemental information regarding the potential future state, as defined through a Fleet Management Long-Term Initiative Plan.

OBSERVATIONS MATRIX – CONTINUED

Observation	1. Long-Term Initiative Plan – continued
Management Action Plan	**Response:** Fleet Management agrees with this finding. A current strategic plan with goals, objectives and strategies does not exist for the division. Currently the Assistant Director for Fleet Management is vacant. When this position is filled, the incumbent will be tasked with organizing and following through on the creation of a strategic plan for the division. Furthermore, the Department of Facilities & Fleet Management will be creating a strategic plan for the new department. The strategic plan developed by Fleet Management will need to be in-line with the department's strategic plan which will need to be in-line with the County's. The Fleet Management strategic plan will address the suggested goals from the finding as well as other topics not listed in this audit. **Responsible Party:** Assistant Director for Fleet Management **Estimated Completion Date:** July 31, 2022

OBSERVATIONS MATRIX – CONTINUED

Observation	2. Vehicle Replacement Criteria
Moderate	Fleet Management plans to incorporate a more robust Vehicle Replacement Score Criteria (see pages 9/10) as part of the vehicle replacement decision-making process. Light fleet vehicles may need to be retired for a number of reasons, including mileage, age, irreparable damage due to an accident, or in some cases operational failure. In order to most effectively retire vehicles before operational failure, a number of variables must be considered to appropriately identify and select vehicles for retirement. As noted within the report, Fleet Management currently uses vehicle mileage as the initial determinant of light fleet replacement eligibility. The department then holds discussions with each department to further evaluate each vehicle proposed for retirement to consider factors such as reliability (based on available data) to determine whether to replace or retain each vehicle. The implementation of AssetWorks has provided Fleet Management with the possibility to implement a more robust scoring method (detailed on pages 10 and 11) that would provide an objective list of light fleet vehicles that should be replaced based on a number of different metrics and factors. Fleet Management would have a better proposed replacement list to facilitate discussions with the owning departments. Without effective replacement modeling, the County risks leaving vehicles in service that should be retired or retiring vehicles too soon. This can result in inefficient use of available vehicle replacement funds, and can adversely impact fleet availability and overall fleet safety.
Recommendation	We recommend Fleet Management complete their adoption of a more robust, quantitative criteria for vehicle replacement, which considers additional variables such as maintenance history, vehicle reliability, vehicle condition, etc. A timeline for adoption should be defined and adhered to. Once adopted, the additional criteria should be added to an updated version of Fleet Management Standard Operating Procedure so all stakeholders are aware of the inputs for this decision-making process. Review of vehicles subject to replacement should be performed, at least, on an annual basis.
Management Action Plan	**Response:** Fleet Management concurs with this finding. The current criteria based solely on mileage is inadequate. Multiple variables should be factored when determining when a vehicle should be replaced. The criteria scoring system included in this report is an option. Fleet Management has hired a fleet specialty consulting firm, Mercury Associates, to complete an analysis of our current fleet and provide us with replacement strategies to consider. Upon completion of this analysis, Fleet Management will present options with their ramifications to the Office of Management & Budget. **Responsible Party:** Assistant Director for Fleet Management, Fleet Administrator & Business Service Analyst **Estimated Completion Date:** July 31, 2022

OBSERVATIONS MATRIX – CONTINUED

Observation	3. Performance Monitoring
Moderate	Fleet Management currently focuses on the following performance measures: • Availability rate (percent of time vehicles are available); • Work order turnaround time (number of work orders completed within a specified range of time); • Scheduled versus unscheduled work orders; and • Mechanic productivity and hour breakdown. The implementation of AssetWorks has improved Fleet Management's ability to produce performance metrics, however, there is a lack of formalization around the creation, review, use, and distribution of performance measure reporting. Procedural documentation does not adequately define responsibilities related to performance metrics from creation to utilization. In addition to improved identification of light fleet vehicles to be replaced, AssetWorks also includes the potential for data capturing and analytics that could have a substantive impact on the availability of vehicles, and the spending related to light fleet vehicle operations and repairs. These available capabilities could include: • Reduce vehicle ownership costs • Extend useful life of vehicles • Increase vehicle availability • Optimize inventory levels • Enhance regulatory compliance for vehicle management, maintenance and parts and inventory management • Streamlined preventive maintenance schedules through standardized jobs, parts lists, scheduling and automated reminders • Improved parts inventory management • Manage fleet financial metrics such as labor costs and fuel usage As an example, AssetWorks functionality, if adopted, could be used to monitor fuel efficiency to identify light fleet vehicles that are not operating efficiently and could be improved through maintenance/repair service. If the fuel efficiency capability is combined with vehicle tracking, Fleet Management could identify light fleet vehicles that are excessively idling or being driven inefficiently. Trending and statistics could be used to identify operators for monitoring or additional training. (See Observation #3 for additional detail.) Without formally documented processes and procedures related to data/performance measures, and utilization of all performance measurement data, operational deficiencies and opportunities for improvement may not be identified timely. This could adversely impact Management's decision-making, fleet availability and reliability, and could ultimately impact the achievement of Fleet Management objectives.
Recommendation	We recommend Fleet Management formally define and document a standardized process for monitoring operational performance. These processes should include the definition and purpose of each measurement, the data source, the process for gathering and analyzing the data, and the distribution plan to relevant stakeholders. Defined processes should also be developed in consideration of additional data and information available through AssetWorks that is not currently being considered. These processes should be included in the Fleet Management Standard Operating Procedures.

OBSERVATIONS MATRIX – CONTINUED

Observation	3. Performance Monitoring – continued
Management Action Plan	**Response:** Concur, Fleet Management is currently working with DoIT to customize and document how performance measures are gathered and utilized. With the additional information now available in AssetWorks, Fleet is committed to working towards consistent performance metrics that will define the efficiency and cost-effectiveness of Fleet Management. As part of strategic plan exercise Fleet Management will have defined goals and strategies to work towards. The key performance indicators from AssetWorks will be play a key role in measuring our performance in meeting our strategic plan goals. Furthermore, as part of our American Public Works Association accreditation efforts, Fleet Management will update its operations manual to include the KPIs that will be used to measure the success of the preventative maintenance program. **Responsible Party:** Assistant Director for Fleet Management, Fleet Administrator, Fleet Supervisor(s), Administrative Coordinator, Business Services Analyst **Estimated Completion Date:** December 31, 2021

OBSERVATIONS MATRIX – CONTINUED

Observation	4. Work Order Cost Capture & Review
Moderate	Work orders are leveraged in Fleet Management's maintenance processes to document the work of the mechanic shop. Each work order captures basic vehicle information (i.e. asset ID, license number) and all tasks performed on the vehicle. Specific information related to each task should also be included, such as the work class, reasoning, comments, labor, parts, and costs. There is no formalized supervisory review process for work orders to validate the completeness and accuracy of invoice data entry, such as labor and materials, or supporting notes that provide important context for work performed. Based on our testing of 25 samples, we identified the following instances in which labor, materials, or supporting notes were not included on work order tasks: • Four work orders included tasks ("exchange", "road test", "remove", and "disassemble") without labor hours applied; • Nine work orders included tasks without materials applied when the task type indicated a "replacement" or "exchange" of parts; and • 16 work orders included one or more tasks without supplemental notes indicating specific work performed. ○ Note: Three had no comments provided for any associated tasks. Complete and accurate repair and maintenance task and expense history is critical to monitoring the performance of vehicles, and is a valuable input in vehicle repair vs. replace decisions. A documented history of high repair costs and/or duplicative maintenance work may indicate a candidate for early retirement. Further, detailed work order notes can help identify missed steps or alternate solutions for repeated failures.
Recommendation	Fleet Management should develop and document a standard process and associated policy for work order review within AssetWorks that requires validation of the completeness and accuracy of work orders, including the capture of labor hours, materials used, and context of the work performed through the inclusion of comments/notes by the mechanic. All work order review should be performed by the direct Supervisor of the mechanic performing the work and any errors or omissions should be communicated to the mechanic for immediate correction. The Supervisor should sign-off (physically or electronically) on the work order to document the review was completed. These processes should be included in the Fleet Management Standard Operating Procedures.
Management Action Plan	**Response:** Fleet Leadership will develop a workflow process that documents specific responsibilities/expectations for employees involved in the Work Order process. These responsibilities will include work order assignment, task creation, WAC (work action code) code documentation, work order comments, scheduled maintenance updates, work order review and closure. Fleet leadership will train employees involved in work order process on any new responsibilities/expectations, arising from workflow process development. **Responsible Party:** Assistant Director for Fleet Management, Fleet Administrator, Fleet Supervisor(s), Administrative Coordinator, Business Services Analyst **Estimated Completion Date:** March 31, 2021

OBSERVATIONS MATRIX – CONTINUED

Observation	5. Preventative Maintenance Schedule
Moderate	When a new vehicle is purchased, a set schedule must be identified for periodic, scheduled maintenance such as oil changes, filter replacement, and tire rotation. Once a vehicle is identified as "active" in AssetWorks, the first scheduled maintenance date is identified and all future preventative maintenance ("PM") is scheduled in six month increments. The PM schedule serves two major purposes: 1) it identifies the upcoming workload for mechanics, and 2) provides notifications to vehicle operators as to when their vehicle is due for service. Based on our review of the population of light fleet vehicle PMs, we identified the following instances in which the PM schedule for new/recent vehicle additions was not accurate or the scheduled PM service was past due: • 122 services did not have their due date updated following the implementation of AssetWorks; and • 495 services either missed their due date or the due date following the service being performed was not appropriately updated. If appropriate PM schedules are not properly scheduled within AssetWorks, or are not appropriately followed, Fleet Management increases the risk of vehicle malfunctions, which could adversely impact vehicle availability and result in increased future maintenance costs.
Recommendation	Fleet Management should review all recent (FY 2021) AssetWorks vehicle additions and validate that the PM schedule is accurate for each. Additionally, Fleet Management should implement a weekly review of for vehicles past due for PM service to address and correct operator non-compliance with scheduled services.
Management Action Plan	**Response:** Fleet Management will review all recent vehicle additions to AssetWorks and validate the preventative maintenance (PM) schedule is accurate for each. Fleet Management will create a report that documents the vehicles that are past due for their PM service and develop a process to contact customers with this information. Fleet Management does stagger the PM schedule of additions throughout the months to ensure a balanced schedule during the year. Furthermore, as part of our accreditation with the American Public Works Association Fleet Management has a documented PM schedule for all the classes of vehicles and equipment. This schedule is reviewed at least every four years. **Responsible Party:** Assistant Director for Fleet Management, Fleet Administrator, Fleet Supervisor(s), Administrative Coordinator, Business Services Analyst **Estimated Completion Date:** July 31, 2021

OBSERVATIONS MATRIX – CONTINUED

Observation	6. Documentation of Vehicle Additions & Retirements
Low	Fleet vehicle purchase requests require business case justifications supporting the need to purchase the requested vehicle. Justifications could include increased headcount or the need to retire/replace unreliable vehicles. Similarly, vehicle retirements require documentation that evidences the completion of activities associated with the retirement of Fleet vehicles. These steps include the completion of maintenance tasks that remove County decals, sensitive or prohibited equipment, emergency lights, etc. Based on our testing, we identified the following instances related to insufficient purchase and retirement documentation: • Two out of 15 recent vehicle purchases did not have a documented reason as to why the new vehicle was an appropriate use of departmental funds; and • Two out of 10 recent vehicle retirements did not have a completed decommissioning/dead lining work order. These work orders are used to identify vehicles ready to be sent to auction, and validate that all County decals, etc. are removed prior to sale. If justifications for vehicle additions are not appropriately documented, the County risks funding the purchase of vehicles for which there is not a demonstrated need. Additionally, if the steps included in the vehicle retirement process are not adequately documented via decommissioning/dead lining work orders, County vehicles could be sent to auction while still including County decals and equipment, which could increase the likelihood that the vehicle is incorrectly associated with non-County activities.
Recommendation	Fleet Management should verify that all vehicle purchase requests include appropriate business case justifications prior to vehicle purchase. Further, Fleet Management should verify that all vehicle retirements are supported by completed decommissioning/dead lining work orders prior to completing the vehicle retirement and allowing the removal of the vehicle for sale.
Management Action Plan	**Response:** During the County budget process a department must justify the business case for an additional vehicle. When a department has funding for additional vehicles, it reflects that the justification has been approved. Going forward, the approved budget for the purchasing department will be documented with the purchase information. Fleet has a process in place for vehicle retirements. Once a vehicle has been determined by Fleet Management to meet deadline requirements the process begins. A work order is created to remove all County details, etc. At the same time an asset disposal is created to inform various departments of the decommissioning. This is completed within the process as defined by the Department of Finance's Asset Disposal Procedure Governed by Purchasing Regulation § 1000 and Department of Finance Capital Asset Accounting and Control 20-FRC-XXX-2. Once all required signatures are acquired, the auction company is notified to retrieve the vehicle from Fleet. Once the vehicle is sold at auction, proceeds are deposited against the proper chart of accounts. Fleet Management will investigate the two decommissioning work orders that were found to be missing in this audit. Fleet Management will determine why they were not documented and evaluate how to put controls in place to mitigate additional decommissioning work orders are not missed. These processes will be reflected in Fleet Management's SOPs. **Responsible Party:** Business Services Analyst, Administrative Coordinator **Estimated Completion Date:** July 31, 2021

OBSERVATIONS MATRIX – CONTINUED

Observation	7. Vehicle Auctions – County Personnel Policy
Low	Per discussion with Fleet Business Service Analyst, Prince William County personnel and their families are not prohibited from bidding on County-owned vehicles/equipment at public auctions. The lack of a County policy prohibiting County employees from bidding on County-owned assets provides the opportunity for individuals with greater insight and influence to benefit from the sale in an unfair manner. Fleet Management personnel (and other County employees with internal knowledge) have access to the vehicle's maintenance history and the mechanic shop's capabilities. As a result, employees may have an incentivized opportunity to manipulate the vehicle being retired through unnecessary parts additions or repairs prior to auction. Insider information and the potential to improve the vehicle condition beyond what the age or mileage might otherwise indicate could result in the misappropriation of County assets (vehicle parts) and could deprive the County of higher revenue from auction proceeds. While the County has authority to implement such a policy, it is not required to do so for County employees, in general. Other local governments allow County employees to bid on County property being auctioned for disposal. However, the Virginia Conflicts of Interest Act prohibits officers and employees of the agency or department that is a party to the procurement agreement from bidding on the County property.
Recommendation	We recommend that Prince William County implement a documented, formal policy to at a minimum prohibit Facilities and Fleet Management personnel and their families from bidding on County-owned vehicles/equipment at auctions. Implementation of this policy could mitigate the perception that County personnel (and their families) may be personally benefiting from auction sales through insider information/capabilities, as well as reduce the risk that County assets (such as vehicle parts) are being misappropriated, or that the County is being deprived of higher revenue from auction proceeds.
Management Action Plan	**Response:** Fleet Management will work with the Department of Finance County Attorney's Office, and other relevant departments to develop a formal, written County policy that bars County employees from purchasing County surplus vehicles/equipment. **Responsible Party:** Assistant Director for Fleet Management **Estimated Completion Date:** July 31, 2021

OBSERVATIONS MATRIX – CONTINUED

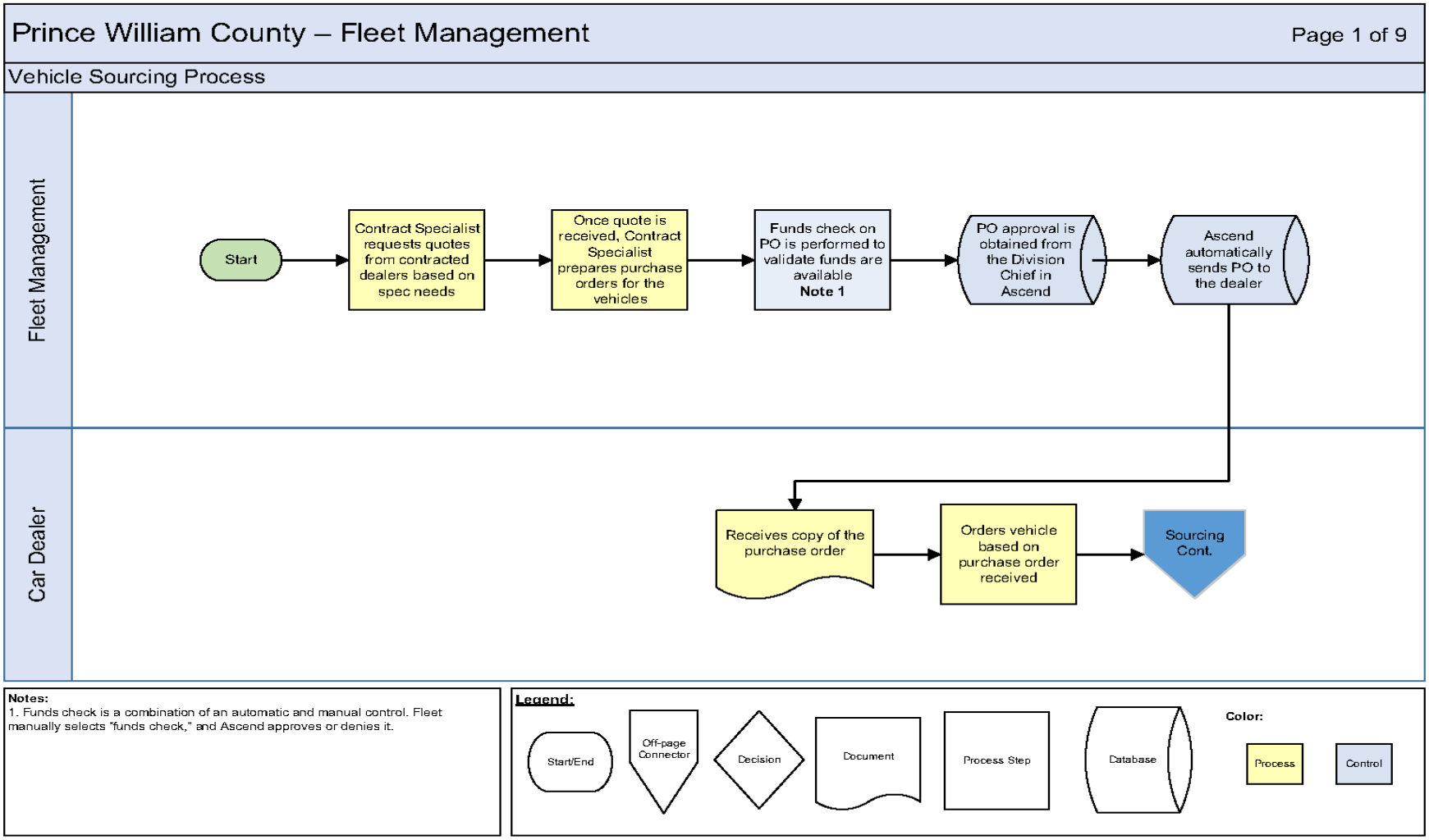
Process Improvement Opportunity

1. Efficiency and System Integration

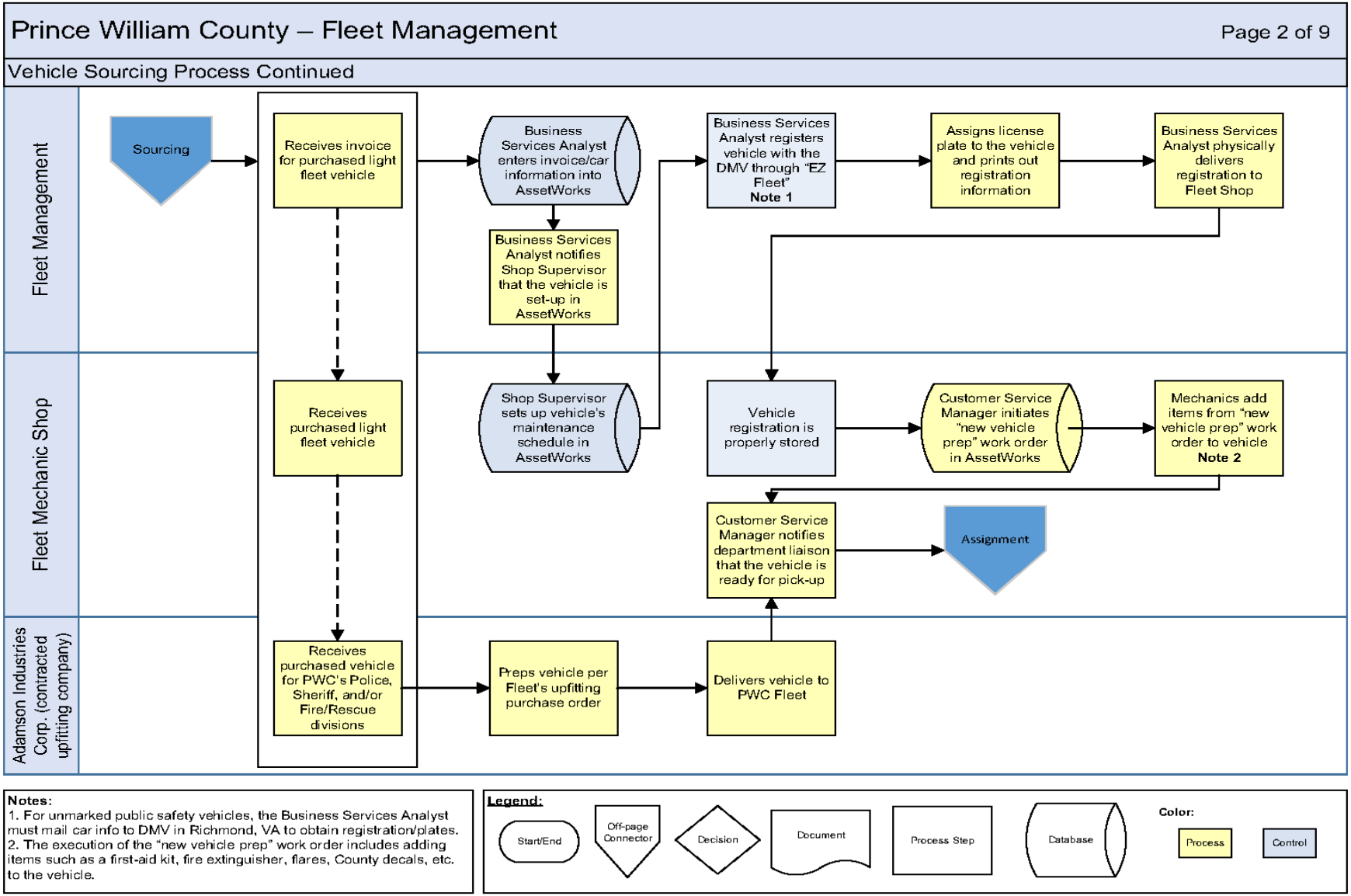
As a part of an internal audit that was performed in 2013, we noted a lack of integration between the INFOR EAM work order system and the County's previous general ledger system, Performance, which resulted in several instances of duplication of effort in the work order, parts inventory and labor entry processes. Based upon our discussions with Fleet Management and process owners during that audit, we were made aware of the fact that during the process of obtaining the INFOR EAM System, integration with the County's accounting software was considered. However, due to software compatibility issues and other limiting circumstances, integration was determined unfeasible at the time.

The implementation of the ASCEND system did not address the data entry/integration issues between the INFOR EAM work order system nor is it addressed in the new AssetWorks Fleet Management System. Additional integration has not been completed due to cost constraints. Integration between the systems should continue to be explored for future efficiency gains and costs savings to the Division through limiting duplicate data entry points noted above.

PROCESS MAPS



PROCESS MAPS – CONTINUED



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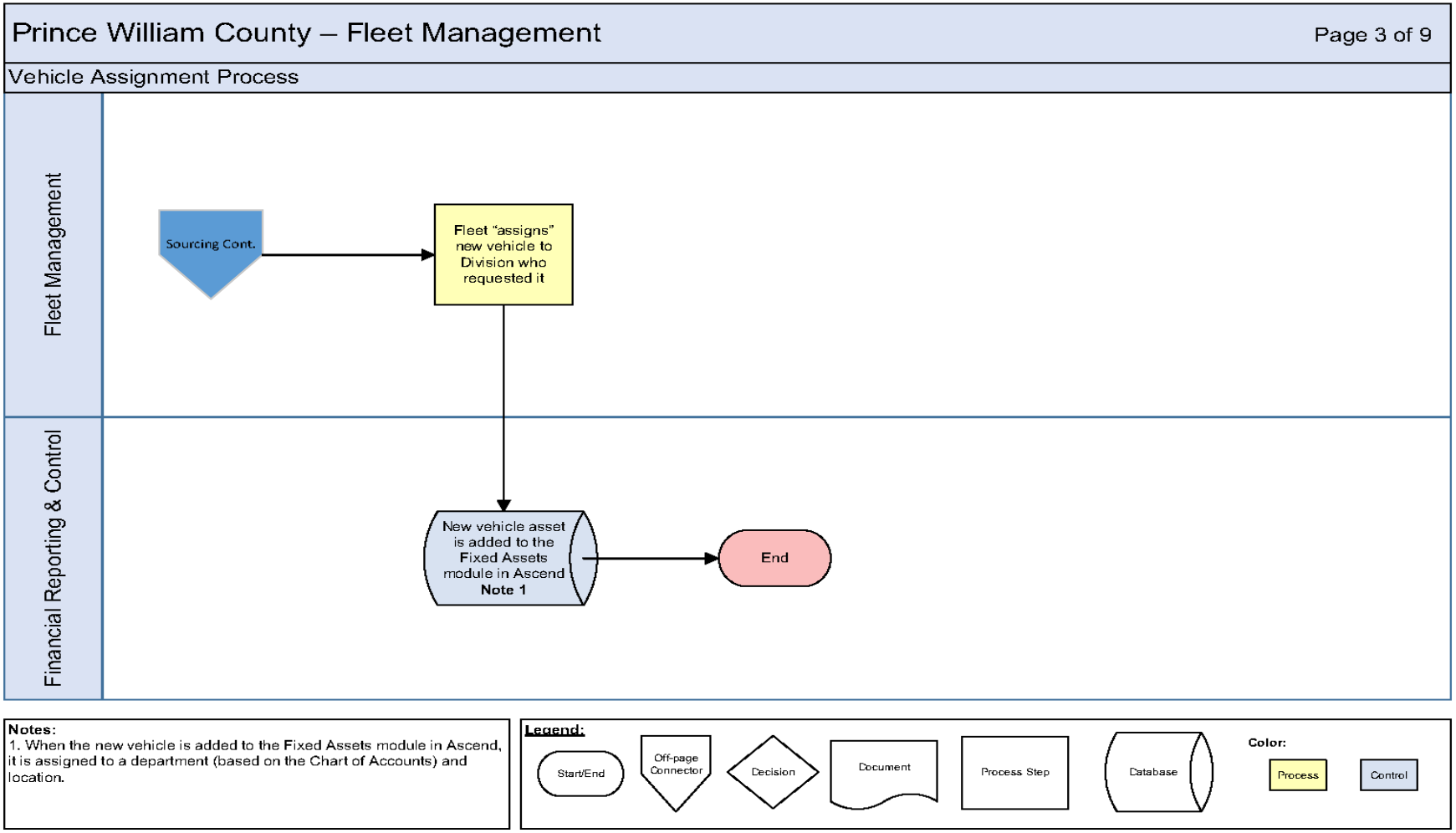

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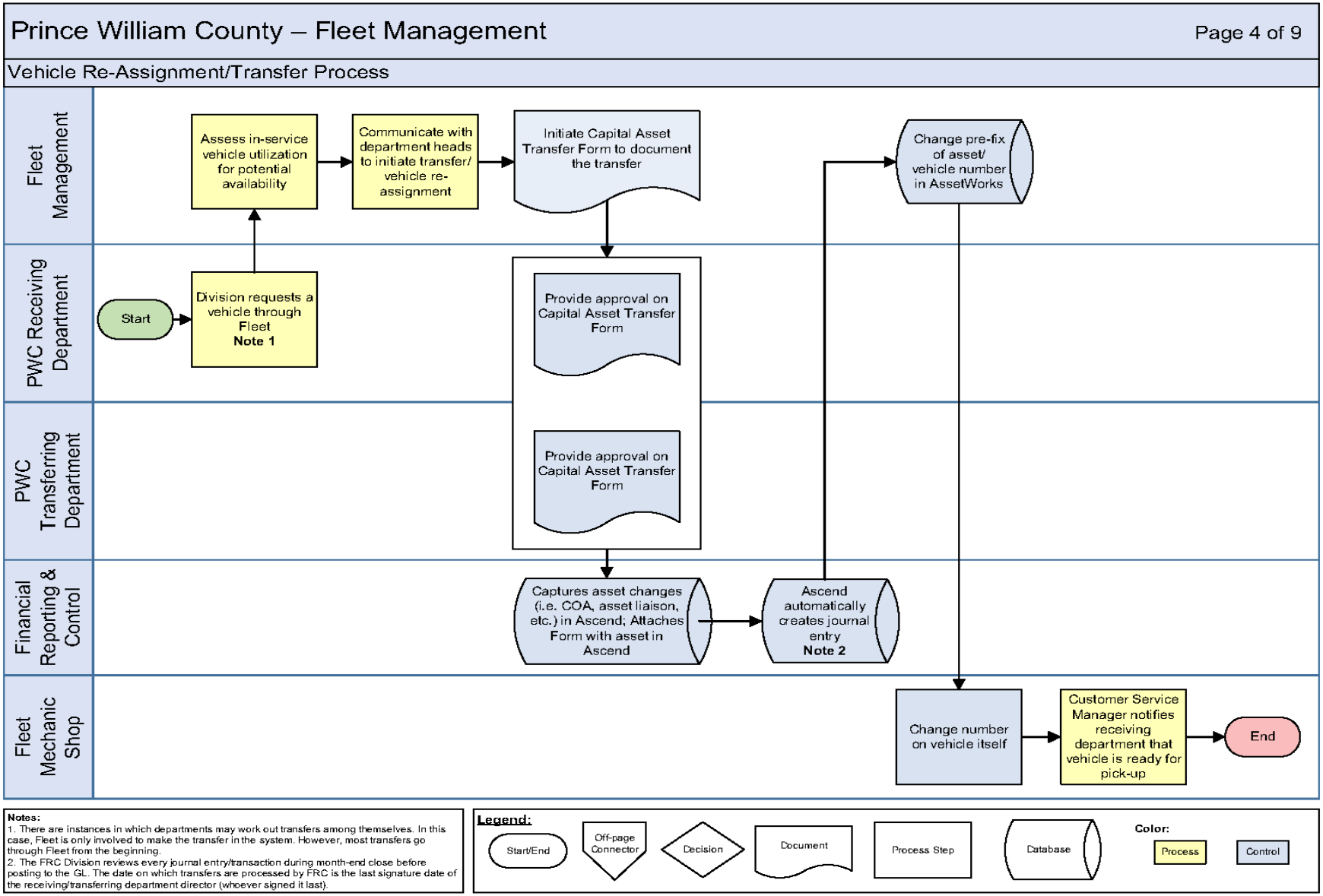

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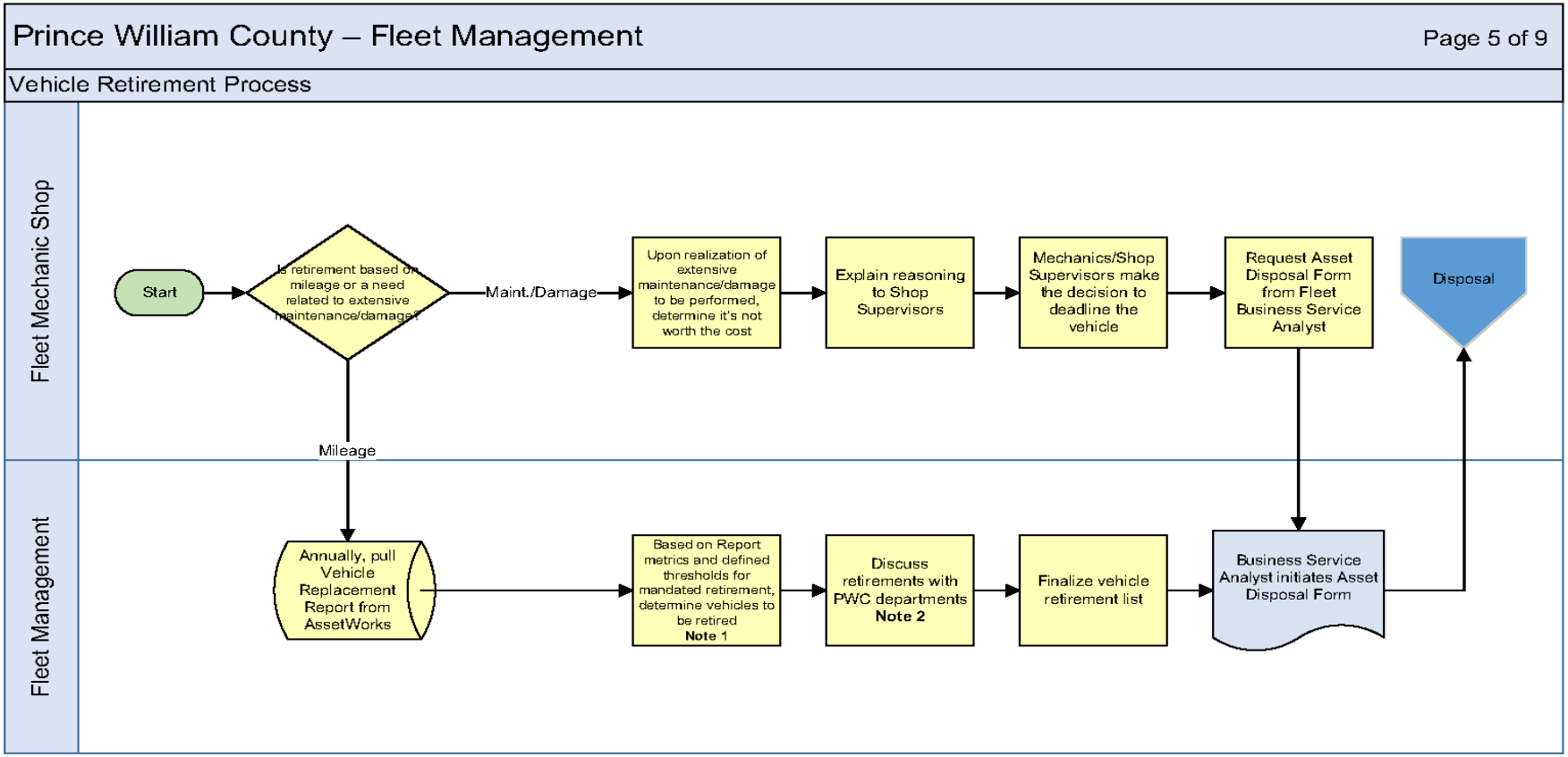
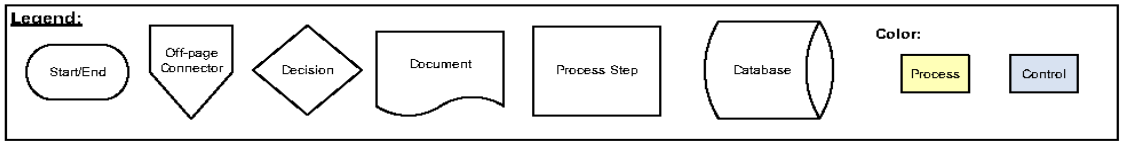


Notes:
1. Fleet uses defined thresholds of "target mileage" to assist in determining retirement (i.e. 50k miles for motorcycles, 120k miles for police cruisers, etc.).
2. The terms "replacement" and "retirement" are used synonymously in Fleet Management's processes.



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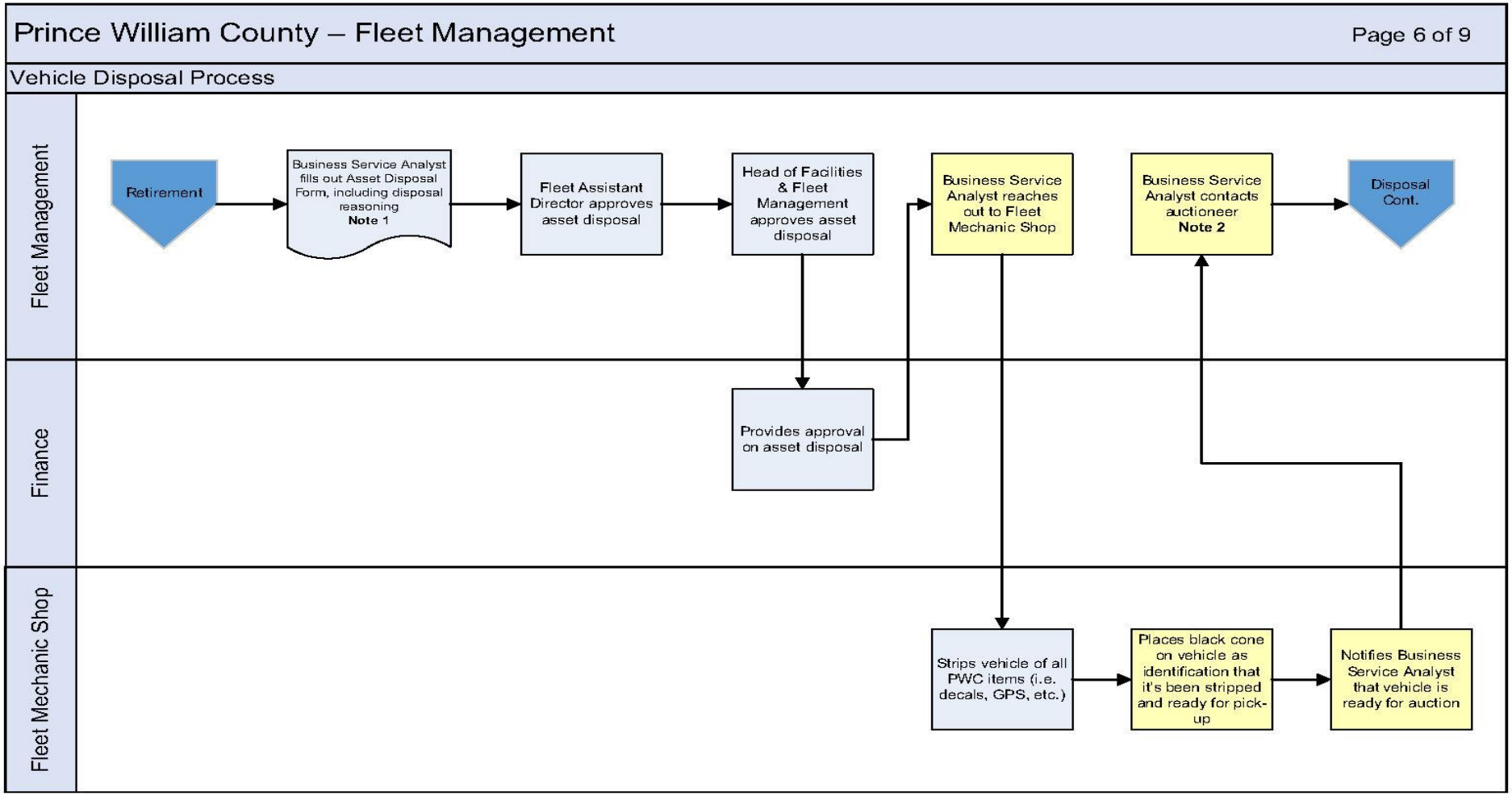

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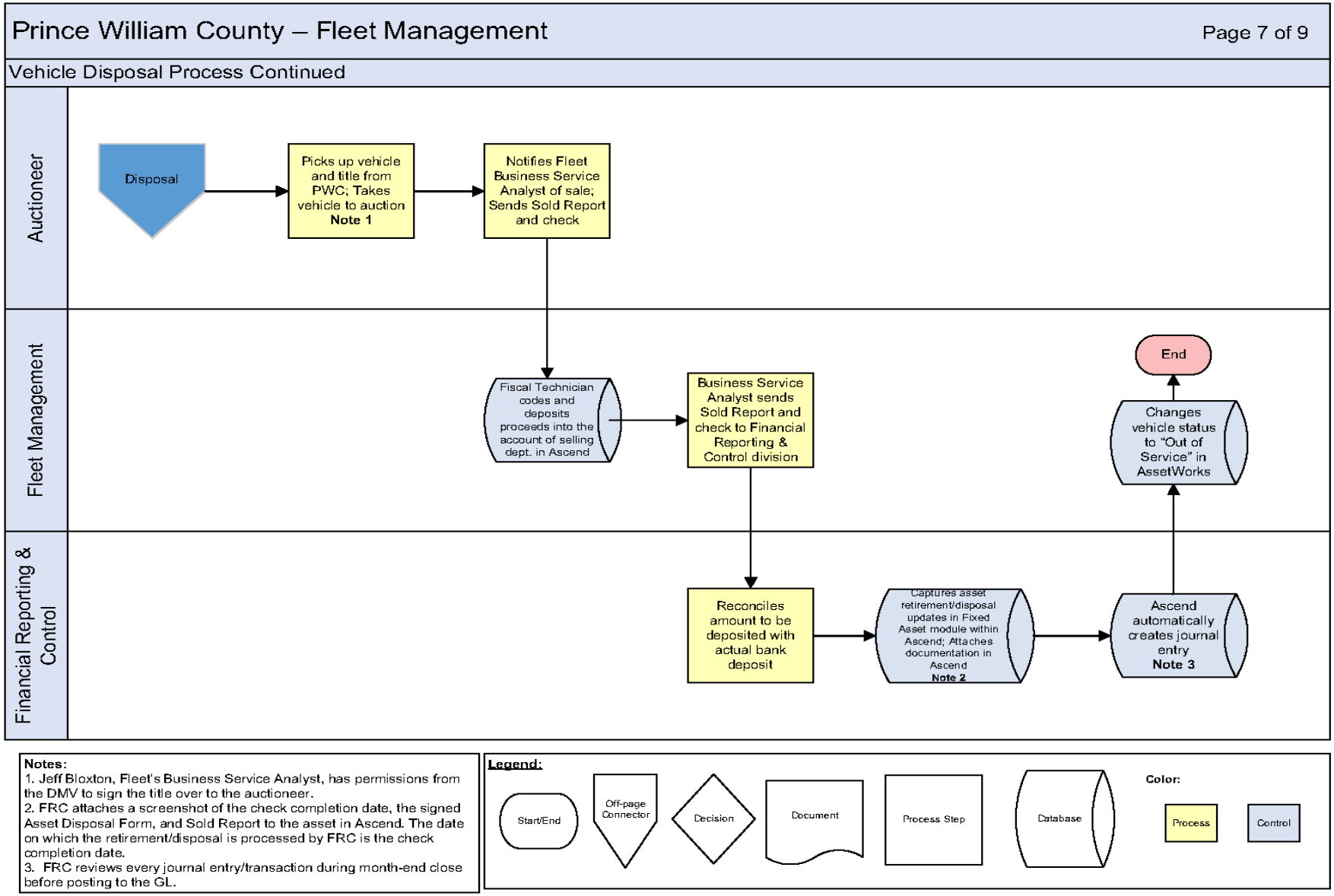

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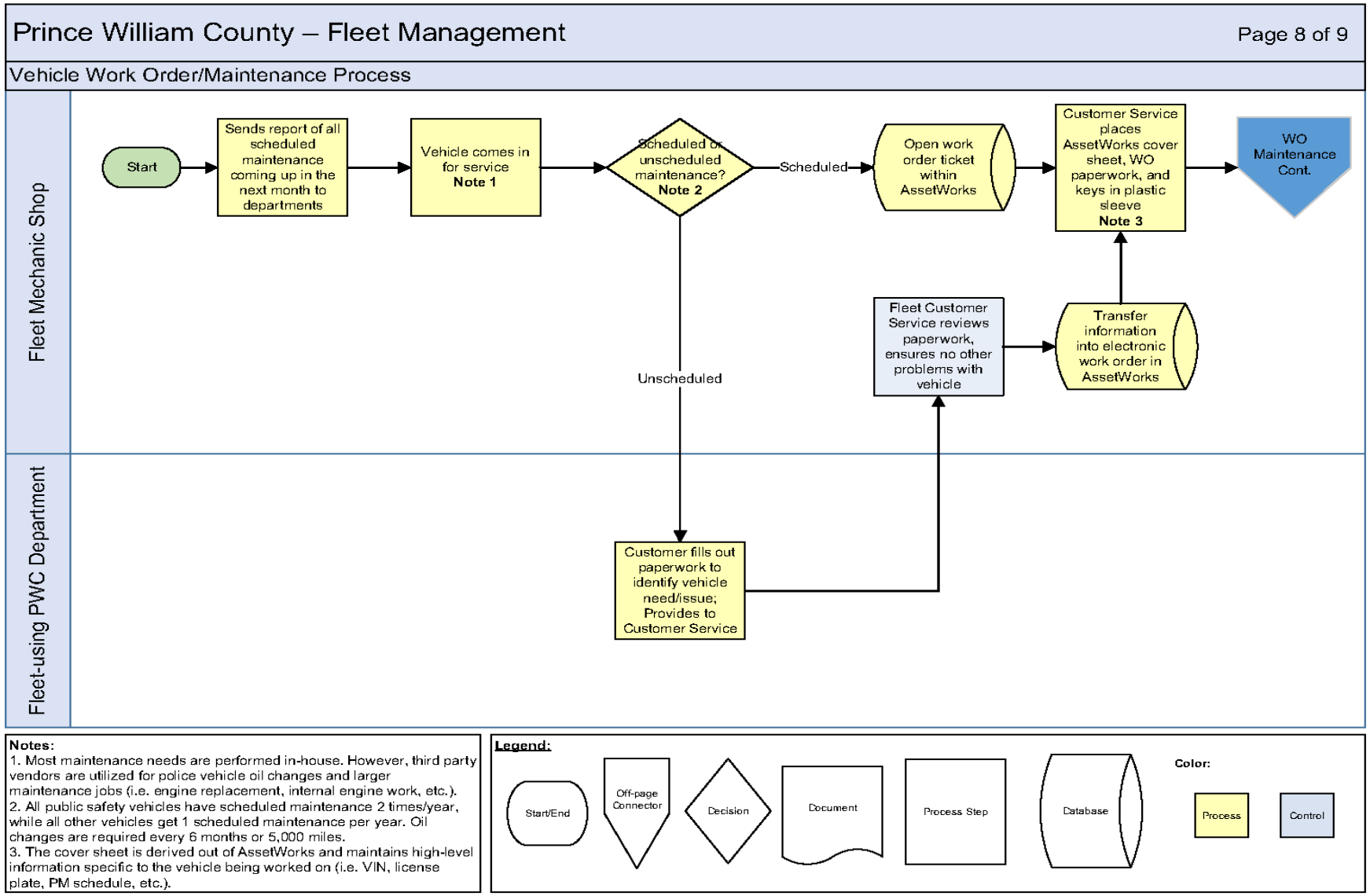

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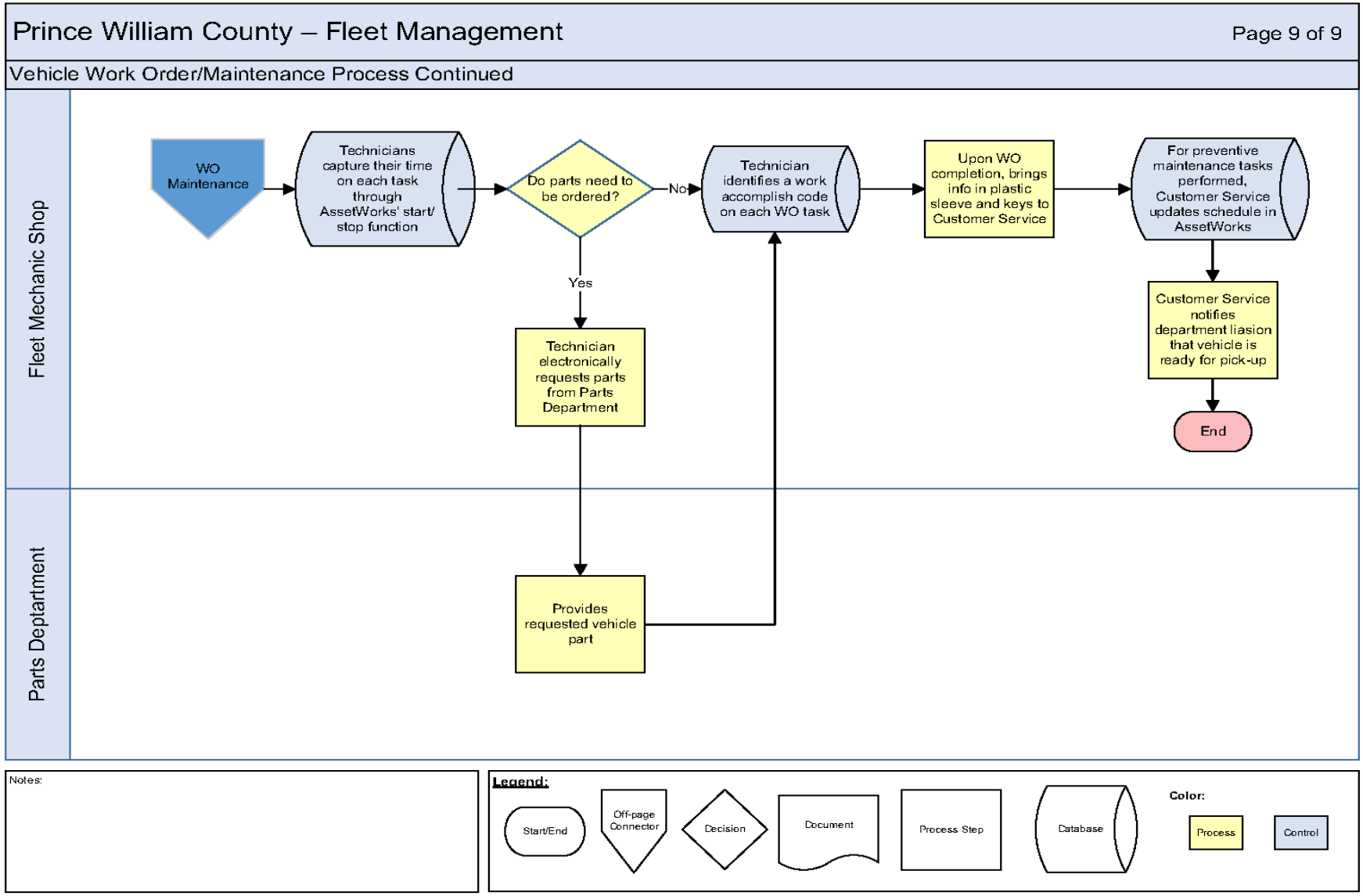
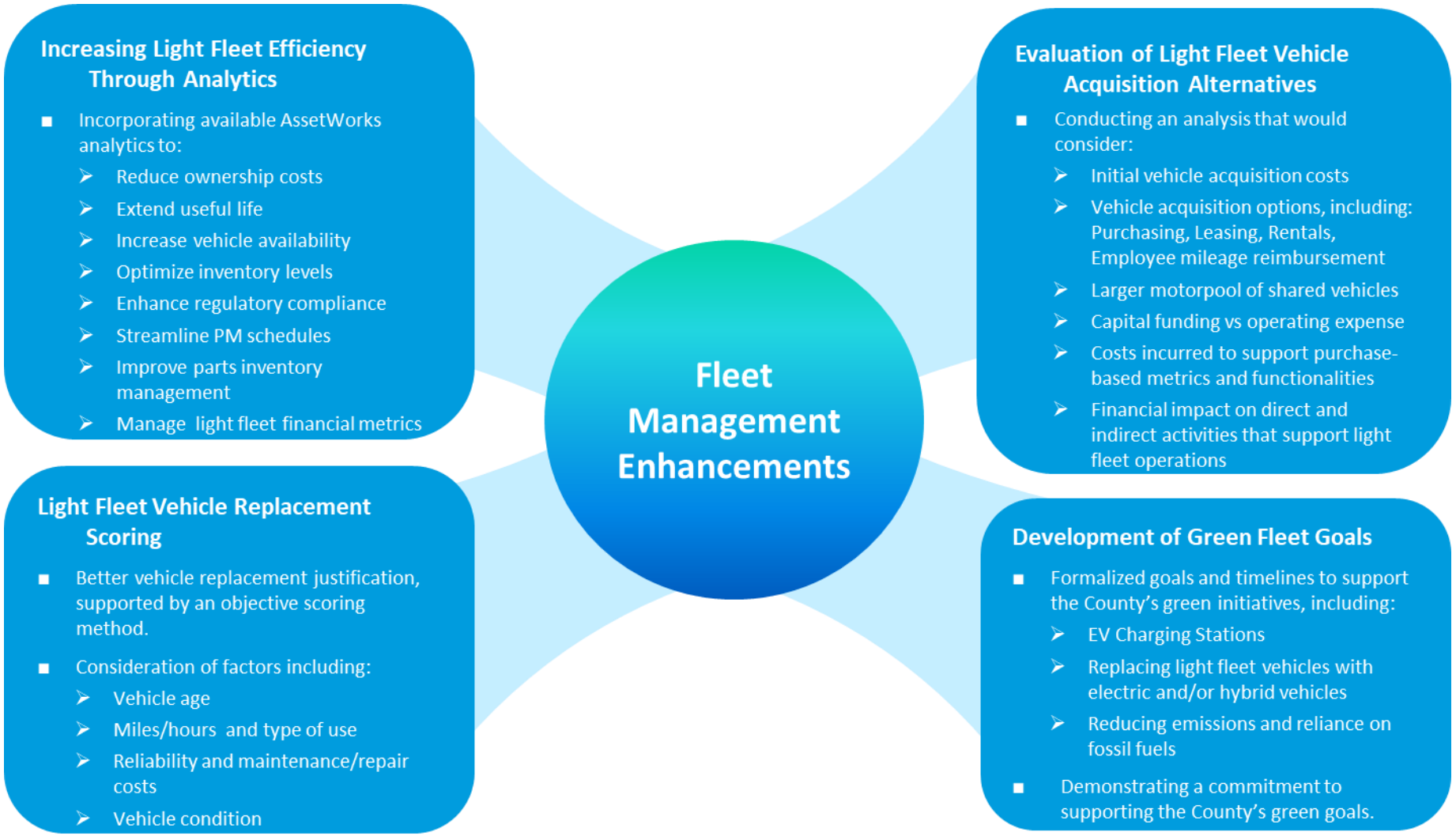
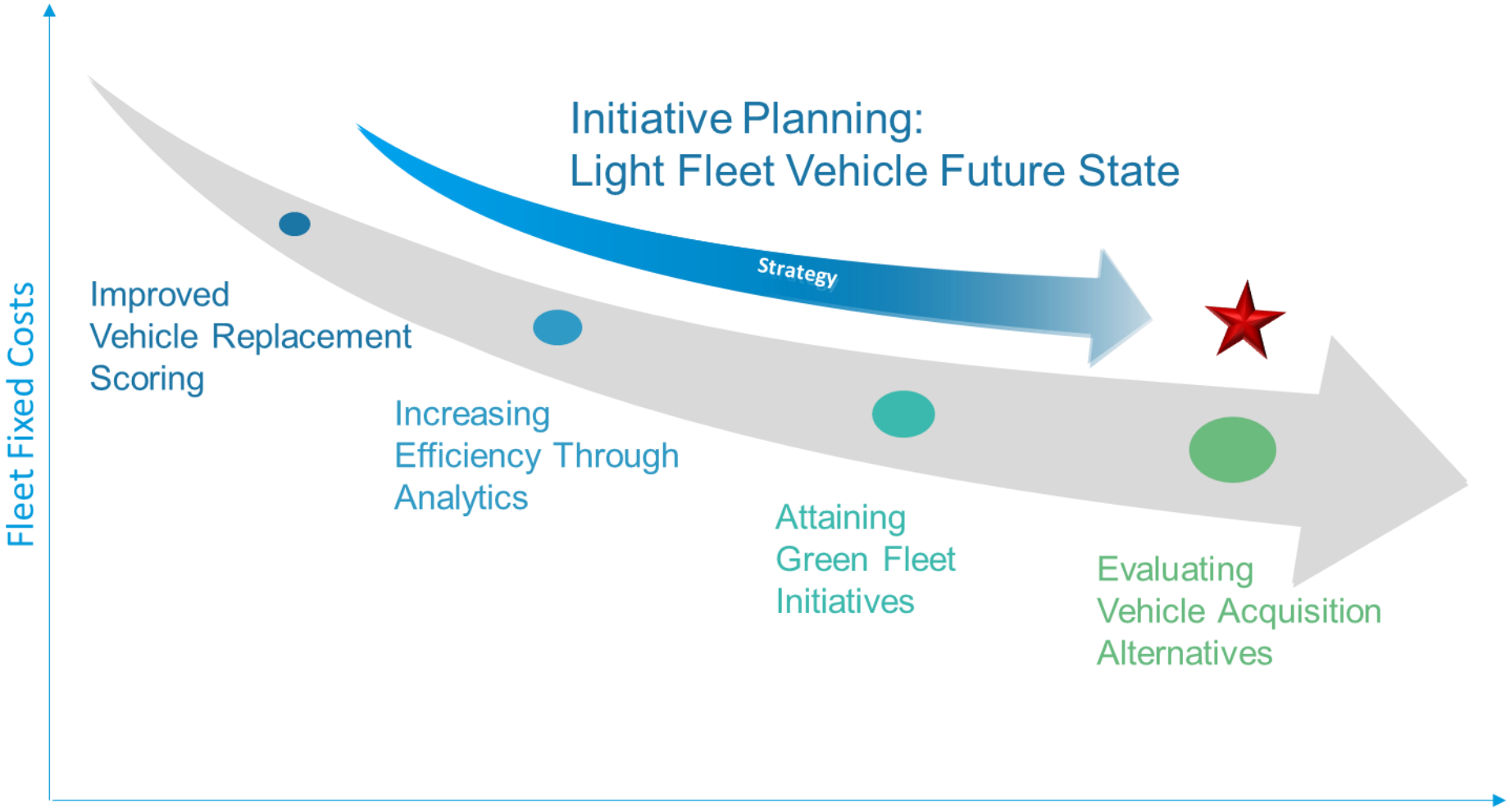


APPENDIX A – SUPPLEMENTAL LONG TERM INITIATIVE PLAN MATERIALS



APPENDIX A – SUPPLEMENTAL LONG TERM INITIATIVE PLAN MATERIALS – CONTINUED



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