

Fiscal Years 2022 through 2026 Capital Improvement Program

Project Cost and Means of Finance Summary

Unappropriated Years

Project Number	Project Title	Appropriations to Date	Unappropriated Years					Total Programmed Costs
			FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	
<b>Capital Projects</b>								
<b>Public Safety</b>								
27-190	Deep Creek Fire Station #8 - Relocate	9,248,092	-	-	-	-	-	9,248,092
28-190	Dock Landing Fire Station #11 - Replace	1,290,500	8,314,137	-	-	-	-	9,604,637
80-250	Emergency Power Supply - Shelters	1,760,000	-	-	-	-	-	1,760,000
23-250	Fire - Biomedical Equipment Replacement	-	-	-	-	3,500,000	-	3,500,000
24-250	Fire - Enclosed Air Trailer	150,000	-	-	-	-	-	150,000
17-240	Fire - Hazardous Materials Monitoring and Detection Systems	-	-	-	265,000	-	-	265,000
25-250	Fire - Hydraulic Rescue Tools	-	-	-	-	335,000	-	335,000
26-250	Fire - Mass Care/Mass Sheltering Upgrade	-	-	-	150,000	-	-	150,000
18-240	Fire - Multipurpose Tow/Rescue Vehicle Replacement	-	-	-	500,000	-	-	500,000
27-250	Fire - Portable Radio Replacement	-	-	-	2,679,000	-	-	2,679,000
19-240	Fire - Structural/Trench Shoring System Replacement	-	-	-	150,000	-	-	150,000
28-250	Fire - Thermal Imaging Cameras/Forward-Looking Infrared Radar	-	-	-	-	395,000	-	395,000
39-200	Fire - Vehicle Replacement	6,750,000	1,500,000	1,500,000	1,500,000	1,500,000	1,772,676	14,522,676
17-220	Fire Station #16 - Joint Fire & Police Station - Grassfield Scenic Parkway	500,000	-	-	-	-	-	500,000
16-220	Fire Station #4 Replacement	900,000	-	-	-	975,000	-	1,875,000
20-240	Fire Station Exhaust Removal Systems Replacement	300,000	-	-	-	-	-	300,000
29-250	Fire/Police - Base Station Radio Replacement	-	-	250,000	250,000	250,000	-	750,000
22-210	Jail - Kitchen Equipment Replacement	194,484	40,502	210,778	71,926	40,000	40,000	597,690
25-210	Jail - Surveillance System Digital Conversion & Additional Cameras	722,000	-	-	-	-	-	722,000
21-240	Jail Booking Area Facility Renovation	150,000	-	-	-	-	-	150,000
30-250	P25 Radio System Upgrade	1,100,000	-	-	-	-	-	1,100,000

31-250	Police - 911 Recording Solution Replacement	-	-	-	300,000	-	-	300,000
34-240	Police - Electronic Summons Collection Equipment	200,000	-	-	-	-	-	200,000
34-250	Police - Portable Radio Equipment	-	550,000	550,000	550,000	-	-	1,650,000
22-240	Police & Sheriff - Virtual Firearm Training/Safety Awareness System	340,000	-	-	-	-	-	340,000
13-230	Police and Fire - Door Card Control Panel Replacement and Fire Station Access	133,500	-	-	-	-	-	133,500
15-230	Police, Fire, and Sheriff - New World App	102,000	-	-	-	-	-	102,000
16-230	Public Safety Facility Issue Studies - Feasibility & Conceptual Design	750,000	-	-	-	-	-	750,000
17-230	Public Safety Two Factor Authentication System Upgrade	100,000	-	-	-	-	-	100,000
43-250	Sheriff - Radio Replacement	90,000	90,000	90,000	90,000	165,950	165,950	691,900
<b>Total</b>		<b>24,780,576</b>	<b>10,494,639</b>	<b>2,600,778</b>	<b>6,505,926</b>	<b>7,160,950</b>	<b>1,978,626</b>	<b>53,521,495</b>

**Means of Financing**

Cash - Lockbox City	8,063,964	1,500,000	1,500,000	4,179,000	1,500,000	205,950	16,948,914
Fund Balance - Capital Projects Fund	1,587,227						1,587,227
Fund Balance - Other Funds	1,100,000	-	250,000	250,000	250,000	-	1,850,000
Fund Balance - General Fund	5,618,484	680,502	850,778	2,076,926	4,435,950	-	13,662,640
G.O. Debt - Short-Term Financing	750,000	-	-	-	-	1,772,676	2,522,676
G.O. Debt - General Government	7,660,901	8,314,137	-	-	975,000	-	16,950,038
<b>Total</b>	<b>24,780,576</b>	<b>10,494,639</b>	<b>2,600,778</b>	<b>6,505,926</b>	<b>7,160,950</b>	<b>1,978,626</b>	<b>53,521,495</b>

# 27-190: Deep Creek Fire Station #8 - Relocate

Department:	Public Safety Capital Projects		
Project Type:	New Facility	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2015	Planning Area:	Deep Creek/Camelot
Start Date:	7/1/2014	Project Status:	Proposed
Est. Completion Date:	6/30/2023		

**Description:**

This project will relocate Deep Creek Fire Station #8 to Moses Grandy Trail.

**Justification:**

Fire Station #8 is over 50 years old and in poor condition. It also often floods during hurricanes, northeaster storms, or unusual tidal events. Firefighters have had to move vehicles to higher ground on several occasions in recent years because of flooding. When this occurs, emergency equipment must relocate to another fire station outside of the district in order to answer emergency calls.

**Comments:**

This project was first identified in FY 2014. After the budget for construction was revised for construction inflation, total estimated project cost rose to \$9.2 million, \$3.9 million more than originally appropriated. On January 14, 2020, City Council approved a budget amendment adding \$3,910,890 in available appropriations from previously completed capital projects.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
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**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Cash - Lockbox City	640,464				640,464
Fund Balance - Capital Projects Fund	1,587,227				1,587,227
G.O. Debt - City	7,020,401				7,020,401
<b>Total Revenue</b>	<b>9,248,092</b>				<b>9,248,092</b>
<b>Expense</b>					
Design & Engineering	640,464				640,464
Construction	7,807,048				7,807,048
Equipment	266,860				266,860
Other	533,720				533,720
<b>Total Expense</b>	<b>9,248,092</b>				<b>9,248,092</b>

# 28-190: Dock Landing Fire Station #11 - Replace

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	New Facility	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2015	Planning Area:	Western Branch
Start Date:	7/1/2014	Project Status:	Proposed
Est. Completion Date:	7/30/2024		

**Description:**

This project will relocate and construct a new Dock Landing Fire Station at a location that can accommodate a modern fire station and better meet the current and future needs of this growing area.

**Justification:**

The current building is over 50 years old, is in poor condition, and needs replacement. A new design is needed to accommodate gender separation and to comfortably expand the number of firefighters assigned each day. The current design also allows diesel exhaust in the living areas of the building, which creates an unsafe environment for firefighters. The initial plan was to rebuild on the existing parcel, but a better suited location for construction was identified (approved by City Council on Feb. 13, 2018).

**Comments:**

This project was first identified in FY 2014. On February 13, 2018, City Council amended the project to add \$330,000 for land acquisition to relocate the station. On September 18, 2018, City Council amended the project to add \$320,000 to purchase property on Joliff Road.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2022	8,314,137	8,314,137	0
	<b>8,314,137</b>	<b>8,314,137</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund	650,000				<b>650,000</b>
G.O. Debt - City	640,500	8,314,137			<b>8,954,637</b>
<b>Total Revenue</b>	<b>1,290,500</b>	<b>8,314,137</b>			<b>9,604,637</b>
<b>Expense</b>					
Design & Engineering	640,500				<b>640,500</b>
Construction		6,973,337			<b>6,973,337</b>
Land Acquisition	650,000				<b>650,000</b>
Equipment		293,600			<b>293,600</b>
Other		1,047,200			<b>1,047,200</b>
<b>Total Expense</b>	<b>1,290,500</b>	<b>8,314,137</b>			<b>9,604,637</b>

# 80-250: Emergency Power Supply - Shelters

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	Equipment	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2020	Planning Area:	Citywide
Start Date:	7/1/2020	Project Status:	Proposed
Est. Completion Date:	6/30/2023		

**Description:**

This project will install emergency generators at three community centers. This will allow existing community centers to be used as shelters in order to lessen disruption at schools.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2022			0
2023			0
	<b>0</b>	<b>0</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund		1,760,000			1,760,000
<b>Total Revenue</b>		<b>1,760,000</b>			<b>1,760,000</b>
<b>Expense</b>					
Equipment		1,760,000			1,760,000
<b>Total Expense</b>		<b>1,760,000</b>			<b>1,760,000</b>

# 23-250: Fire - Biomedical Equipment Replacement

Department:	Public Safety Capital Projects		
Project Type:	Replacement	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2021	Planning Area:	Citywide
Start Date:	7/1/2024	Project Status:	Proposed
Est. Completion Date:	6/30/2025		

**Description:**

This project will replace biomedical equipment that will be reaching the end of service life according to standards of the Food and Drug Administration and manufacturer warranty requirements.

**Justification:**

Biomedical devices are critical components for saving lives in cardiac and other emergencies. These devices are very effective at improving patient outcomes as demonstrated by five years of meeting the American Heart Association's Mission: Lifeline EMS Recognition standards, for which the City earned Gold Plus standards the last three years. Chesapeake has a cardiac arrest save percentage that is well above national standards. Placing this equipment on a scheduled replacement plan allows us to implement new, clinically-proven technologies as they emerge. The schedule also ensures the standardization of equipment throughout the City. Keeping the fleet consistent will reduce provider stress, increase provider retention, maintain consistent quality of care, and most importantly, improve patient outcomes. The last biomedical upgrade was in 2015, which will make the cardiac monitoring and defibrillation equipment over ten years old when this project is funded. Ten years is the accepted service life for biomedical equipment according to the FDA and the current equipment will be at the end of the allowable service contract life.

**Comments:**

Replace all Physio/Stryker LP 15 Cardiac Monitor / Defibrillators, all Physio/Stryker LP CR+ automatic external defibrillators and LP1000 automatic external defibrillators, LUCAS automated chest compression devices, RESQCPR manual active compression and decompression devices, and telemetry modems. Additionally, in order to maintain a quality standard of care, meet service life needs, be congruent with emerging technologies, and account for new apparatus entering service, the following items will also be included in this replacement schedule: video laryngoscopes, digital thermometers, intraosseous bone vascular access drivers, ultrasound probes and monitors, carbon monoxide and methemoglobin oximetry monitors, and thoracic elevation CPR devices, etc.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2025	3,500,000	3,500,000	0
	<b>3,500,000</b>	<b>3,500,000</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund			3,500,000		3,500,000
<b>Total Revenue</b>			<b>3,500,000</b>		<b>3,500,000</b>
<b>Expense</b>					
Equipment			3,500,000		3,500,000
<b>Total Expense</b>			<b>3,500,000</b>		<b>3,500,000</b>

**Operating Budget Impact:**

Year	Exp (Rev)	FTE Impact
2026	200,000	0.0

## 24-250: Fire - Enclosed Air Trailer

Department:	Public Safety Capital Projects		
Project Type:	Equipment	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2021	Planning Area:	Citywide
Start Date:	7/1/2020	Project Status:	Proposed
Est. Completion Date:	6/30/2022		

### Description:

This project will provide the Fire Dept. with an enclosed air trailer. This specialized equipment is used to fill SCBA bottles on the fire ground and during training evolutions. Furthermore, the enclosed air trailer has a workbench and tools for SCBA technicians to make repairs to breathing harnesses at the emergency incident and during training evolutions.

### Justification:

The ability to supply, replenish, and repair air bottles and harnesses is critical, especially on high-rise and mid-rise structures. The development of Summit Pointe and the Dollar Tree high-rise, as well as intensive development and activity in the area, provides a much higher degree of risk. This makes it necessary to improve air supply for responders on scenes. Without the air trailer, the Fire Department will not be able to establish an uninterrupted continuous air supply for our firefighters operating on elevated floors of the structures.

### Comments:

The current compressor is over a decade old, has undergone numerous repairs, and is not operable. This specialized equipment is on a trailer that can be towed to different training sites and emergency scenes. It was originally purchased using grant funds, and thus supported by the department's operating budget. The compressor is not on an enclosed trailer and it does not provide the resources to conduct onsite SCBA repairs. Increased complexity and duration of fire/hazmat incidents require onsite availability to make repairs to emergency breathing systems and to fill air bottles during long incidents. On-site bottle refilling is preferable to reliance solely on pre-filled air bottles.

### Project Forecast:

Year	Total Expense	Total Revenue	Difference
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### Project Details 2022:

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund	150,000				150,000
<b>Total Revenue</b>	<b>150,000</b>				<b>150,000</b>
<b>Expense</b>					
Equipment	150,000				150,000
<b>Total Expense</b>	<b>150,000</b>				<b>150,000</b>

### Operating Budget Impact:

Year	Exp (Rev)	FTE Impact
2023	5,000	0.0
2024	5,000	0.0
2025	5,000	0.0
2026	5,000	0.0

# 17-240: Fire - Hazardous Materials Monitoring and Detection Systems

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Department:	<b>Public Safety Capital Projects</b>		
Project Type:	Replacement	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2020	Planning Area:	Citywide
Start Date:	7/1/2023	Project Status:	Proposed
Est. Completion Date:	7/30/2024		

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**Description:**

This project will replace/upgrade the Fire Dept.'s Hazardous Materials Monitoring and Detection Systems capabilities. The current meters are reaching the end of their service life and will no longer be supported by the manufacturer. This project will replace the monitoring equipment and the gas meters.

**Justification:**

The manufacturer of the current equipment will discontinue parts, software, and support by the end of 2019. The meters are a vital part of our monitoring and detection capabilities. The equipment is deployed and used on a regular basis to monitor Hot Zones and structures with remote monitoring features that avoid placing fire personnel in danger.

**Comments:**

The current meters have been in service since 2007. The meters provide the Fire Dept. and Hazmat Team the capability to respond to and then deem safe hazmat issues from any kind of harmful gas and explosives, including terrorist threats, that may pose a risk to citizens' homes, businesses, or public spaces. The Fire Dept. has assisted the State and Local Police, FBI, VDEM, Port Authority, and numerous other organizations with various incidents.

**Project Forecast:**

<u>Year</u>	<u>Total Expense</u>	<u>Total Revenue</u>	<u>Difference</u>
2024	265,000	265,000	0
	<b>265,000</b>	<b>265,000</b>	<b>0</b>

**Project Details 2022:**

	<u>Prior Years</u>	<u>2022</u>	<u>2023 - 26</u>	<u>Future Years</u>	<u>Total Amount</u>
<b>Revenue</b>					
Fund Balance - General Fund			265,000		<b>265,000</b>
<b>Total Revenue</b>			<b>265,000</b>		<b>265,000</b>
<b>Expense</b>					
Equipment			265,000		<b>265,000</b>
<b>Total Expense</b>			<b>265,000</b>		<b>265,000</b>



# 25-250: Fire - Hydraulic Rescue Tools

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Department:	<b>Public Safety Capital Projects</b>		
Project Type:	Equipment	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2021	Planning Area:	Citywide
Start Date:	7/1/2024	Project Status:	Proposed
Est. Completion Date:	6/30/2025		

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**Description:**

This project will replace the hydraulic tools on the Rescue 15, Ladder 5, and Ladder 12. The tools include cutters, spreaders, combination tools, and rams.

**Justification:**

New, reliable, and up-to-date hydraulic tools for safe and rapid extrication of persons is critical to the safety of the city's residents. Replacement of tools with the purchase of new apparatus has reduced the cost of this project to only those tools that require updating. Auto manufacturers constantly change the design, strength, and location of exotic metals inside vehicles which challenges the capabilities of current tools. Replacing and updating our current extrication equipment is needed to meet the demands that are being placed on rescue teams.

**Comments:**

Current tools were purchased in 2010 and require maintenance each year. Extractions are continually becoming more complex and difficult. Challenges that currently faced include auto manufactures increased use of High Strength Low Alloy (HSLA) and Ultra High Strength Steel (UHSS/Boron).

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2025	335,000	335,000	0
	<b>335,000</b>	<b>335,000</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund			335,000		335,000
<b>Total Revenue</b>			<b>335,000</b>		<b>335,000</b>
<b>Expense</b>					
Equipment			335,000		335,000
<b>Total Expense</b>			<b>335,000</b>		<b>335,000</b>

# 26-250: Fire - Mass Care / Mass Sheltering Upgrade

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	System Acquisition or Upgrade	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2021	Planning Area:	Citywide
Start Date:	7/1/2023	Project Status:	Proposed
Est. Completion Date:	6/30/2024		

**Description:**

This project replaces the Disaster Medical Support Unit (DMSU), Mass Casualty Incident trailer (MCI) and the Shelter Support Unit trailer (SSU) along with durable equipment currently on the units. It also provides a metal carport like structure for protection from weather elements, thus extending the useful life of the units.

**Justification:**

The updated trailers will enable critical support in three different and challenging environments. The first is natural disasters, including hurricanes, tornadoes, tropical storms, and rural-urban interface incidents. Second, the enhanced capabilities of the DMSU, MCI, and SSU will provide needed equipment/support during incidents such as large scale fires (Robert Hall Blvd) and expanded incidents such as bus accidents. The third type of challenging operating environment is the active threat incident which can involve an active shooter with casualties, or a cyber attack on the city's infrastructure, both requiring strong departmental support to the community.

**Comments:**

Existing trailers and equipment are over ten years old. Although consumables are currently rotated out through HRMMRS sustainment funding, it is reasonable to anticipate that some of the durable equipment on these units may need to be replaced as well due to age and constant exposure to the weather elements.

**Project Forecast:**

<u>Year</u>	<u>Total Expense</u>	<u>Total Revenue</u>	<u>Difference</u>
2024	150,000	150,000	0
	<b>150,000</b>	<b>150,000</b>	<b>0</b>

**Project Details 2022:**

	<u>Prior Years</u>	<u>2022</u>	<u>2023 - 26</u>	<u>Future Years</u>	<u>Total Amount</u>
<b>Revenue</b>					
Fund Balance - General Fund			150,000		<b>150,000</b>
<b>Total Revenue</b>			<b>150,000</b>		<b>150,000</b>
<b>Expense</b>					
Equipment			150,000		<b>150,000</b>
<b>Total Expense</b>			<b>150,000</b>		<b>150,000</b>

# 18-240: Fire - Multipurpose Tow/Rescue Vehicle Replacement

Department:	Public Safety Capital Projects		
Project Type:	Equipment	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2020	Planning Area:	Citywide
Start Date:	7/1/2023	Project Status:	Proposed
Est. Completion Date:	7/30/2025		

**Description:**

This project will provide for a multi-purpose rescue apparatus that will function as a tow vehicle for the Structural Collapse Rescue Trailer (TECH 15). This unit will also function as a backup apparatus for RESCUE 15, capable of carrying a full complement of specialized rescue and firefighting equipment. This will allow the technical rescue team continuity of specialized rescue service delivery to the citizens of Chesapeake and the Hampton Roads Region when the RESCUE 15 apparatus is out of service. The vehicle will have the ability to function as a "ladder tender" apparatus, which will allow ladder companies to maintain vehicle extrication and firefighting capabilities in the event their apparatus is out of service for mechanical reasons and the single spare ladder apparatus is not available.

**Justification:**

Increased commercial and industrial development, including structures with poured in place and tilt slab concrete construction, requires specialized rescue capabilities for response to fire, natural and man-made disasters, and acts of terrorism. This project will allow for continuity of specialized rescue service delivery with the addition of a state-of-the-art multipurpose tow vehicle. This apparatus will ensure that the Chesapeake Fire Dept. Technical Rescue Team continues to provide responsive and caring service to the citizens of Chesapeake and Hampton Roads in the event of front-line apparatus failures.

**Comments:**

In 2014, the 1998 American LaFrance heavy rescue apparatus, SQUAD 15, was replaced with the state-of-the-art RESCUE 15 apparatus. Due to age and maintenance costs, the SQUAD 15 apparatus was transferred out of the Fire Dept.'s control and subsequently sold. This left no reserve apparatus to serve as backup for the RESCUE 15 apparatus, and therefore, a gap in the delivery of specialized rescue service.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2024	500,000	500,000	0
	<b>500,000</b>	<b>500,000</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund			500,000		500,000
<b>Total Revenue</b>			<b>500,000</b>		<b>500,000</b>
<b>Expense</b>					
Equipment			500,000		500,000
<b>Total Expense</b>			<b>500,000</b>		<b>500,000</b>

**Operating Budget Impact:**

Year	Exp (Rev)	FTE Impact
2025	21,000	0.0
2026	21,000	0.0

# 27-250: Fire - Portable Radio Replacement

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	Replacement	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2021	Planning Area:	Citywide
Start Date:	7/1/2023	Project Status:	Proposed
Est. Completion Date:	6/30/2024		

**Description:**

This project will provide the Fire Department with 351 replacement portable radios to replace the obsolete models. The currently deployed Motorola APX6000XE and APX7000XE portable radios; the APX6000 reaches end of service life in 2023.

**Justification:**

With the buildout of the Radio to CAD interface, the Fire Department can use the new functionality that these units provide such as GPS and status updates via the radio.

**Comments:**

This will provide an orderly transition to new radios. Neither Harris nor Motorola currently offers a Fire Service portable radio that meets the specifications for the new NFPA standard 1802. Since compliant units are not yet available, equipment costs are estimated based on the current cost of fire radios. Since firefighters and equipment are subject to very harsh environments, fire radios are typically more expensive than those used by police officers.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2024	2,679,000	2,679,000	0
	<b>2,679,000</b>	<b>2,679,000</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Cash - Lockbox City			2,679,000		<b>2,679,000</b>
<b>Total Revenue</b>			<b>2,679,000</b>		<b>2,679,000</b>
<b>Expense</b>					
Equipment			2,679,000		<b>2,679,000</b>
<b>Total Expense</b>			<b>2,679,000</b>		<b>2,679,000</b>

**Operating Budget Impact:**

Year	Exp (Rev)	FTE Impact
2025	342,000	0.0
2026	342,000	0.0

# 19-240: Fire - Structural/Trench Shoring System Replacement

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Department:	<b>Public Safety Capital Projects</b>		
Project Type:	Replacement	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2020	Planning Area:	Citywide
Start Date:	7/1/2023	Project Status:	Proposed
Est. Completion Date:	7/30/2024		

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**Description:**

This project will replace current pneumatic structural and trench shoring equipment which is outdated and no longer serviceable or supported by the manufacturer. This specialized rescue equipment is used to stabilize heavy concrete structures that have suffered structural collapse resulting from natural and man-made disasters or acts of terrorism. In addition, this equipment is used to stabilize trench walls in order to rescue a trapped victim in a below grade construction accident. The new equipment includes increased safety features that will support responder safety and more rapid patient extrication. This project will also enhance the department's ability to lift, stabilize and extricate trapped patients from vehicles involved in serious accidents.

**Justification:**

The increase in commercial/ industrial occupancies in the City, including those with poured in place and tilt slab concrete construction, requires specialized rescue capabilities in emergency events (i.e. fires, natural and man-made disasters, or acts of terrorism). This project will help to ensure the Chesapeake Fire Dept. Technical Rescue Team maintains a high level of specialized rescue service delivery to the citizens of Chesapeake and the Hampton Roads area.

**Comments:**

Current shoring equipment is over fifteen years old and is no longer in production. Replacement parts and service are no longer available.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2024	150,000	150,000	0
	<b>150,000</b>	<b>150,000</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund			150,000		<b>150,000</b>
<b>Total Revenue</b>			<b>150,000</b>		<b>150,000</b>
<b>Expense</b>					
Equipment			150,000		<b>150,000</b>
<b>Total Expense</b>			<b>150,000</b>		<b>150,000</b>

# 28-250: Fire - Thermal Imaging Cameras (TICs)/Forward-Looking Infrared Radar (FLIR) Units

Department:	Public Safety Capital Projects		
Project Type:	Equipment	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2021	Planning Area:	Citywide
Start Date:	7/1/2024	Project Status:	Proposed
Est. Completion Date:	6/30/2025		

**Description:**

This project replaces the Thermal Imaging Cameras (TICs) on 27 Fire Department emergency vehicles. It also replaces the aging Forward-Looking Infrared Radar (FLIR) unit on the Marine Incident Response Team vessel along with three (3) chart plotters that are integral to the unit.

**Justification:**

Thermal Imaging Cameras have proven to be an exceptionally valuable tool for locating victims of a fire and determining the exact location of the fire. This equipment provides for a very high level of firefighter safety and significantly increases the survival of fire victims. FLIR Maritime Thermal Imaging Systems gives members of the MIRT the ability to see clearly in total darkness through solar glare and through fog and smoke. They are used for Search and Rescue (SAR) operations and excel in the maritime environment. Thermal imaging also aids in identifying navigation markers, buoys, logs, and other debris floating in the water. When responding to a call at high speed, the enhanced vision is essential for ensuring the safety of city vessels as well as surrounding civilian vessels.

**Comments:**

This project will ensure that the Thermal Imaging Camera/FLIR programs continue on a seven-year replacement schedule. Replacing this technology every seven years keeps the equipment up-to-date with the latest technology, standards, and optimal performance.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2025	395,000	395,000	0
	<b>395,000</b>	<b>395,000</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund			395,000		<b>395,000</b>
<b>Total Revenue</b>			<b>395,000</b>		<b>395,000</b>
<b>Expense</b>					
Equipment			395,000		<b>395,000</b>
<b>Total Expense</b>			<b>395,000</b>		<b>395,000</b>

# 39-200: Fire - Vehicle Replacement

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	Replacement	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2016	Planning Area:	Citywide
Start Date:	7/1/2015	Project Status:	Proposed
Est. Completion Date:	6/30/2026		

**Description:**

This project will provide for the replacement of Fire Department telesquirts, ladder trucks, and pumps.

**Justification:**

This project will address the City's fire vehicle replacement backlog. The current dollar figure budgeted to replace a fire engine (\$750,000) and a ladder truck (\$1,500,000) has been consistent over the past 6 years, however the actual costs of the apparatus, hose, and equipment have increased. The city's vendor estimates a 3% increase per year, with additional increases determined by new NFPA Standards.

**Comments:**

The current CIP was established to replace aging fire apparatus. During FY16, FY17, and FY18, funding of \$750,000 was provided to replace one fire engine each year. During FY19, FY20, and FY21, funding of \$1.5m was provided to replace 2 fire engines or 1 ladder truck each year. The department still has 11 front line fire engines and 2 ladder trucks that are at least 11 years old and are in need of replacement. The Fire Department is attempting to replace either two fire engines or one ladder truck per year to ensure the apparatus meet National Fire Protection Association (NFPA) Standards. The Fire Department also replaces hose and equipment on each apparatus to ensure it meets it's service life expectancy.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2022	1,500,000	1,500,000	0
2023	1,500,000	1,500,000	0
2024	1,500,000	1,500,000	0
2025	1,500,000	1,500,000	0
2026	1,772,676	1,772,676	0
	<b>7,772,676</b>	<b>7,772,676</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
G.O. Debt - Short Term Financing	750,000		1,772,676		<b>2,522,676</b>
Cash - Lockbox City	6,000,000	1,500,000	4,500,000		<b>12,000,000</b>
<b>Total Revenue</b>	<b>6,750,000</b>	<b>1,500,000</b>	<b>6,272,676</b>		<b>14,522,676</b>
<b>Expense</b>					
Equipment	6,750,000	1,500,000	6,272,676		<b>14,522,676</b>
<b>Total Expense</b>	<b>6,750,000</b>	<b>1,500,000</b>	<b>6,272,676</b>		<b>14,522,676</b>

# 17-220: Fire Station #16 - Joint Fire & Police Station - Grassfield/Scenic Pkwy.

Department:	Public Safety Capital Projects		
Project Type:	New Facility	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2018	Planning Area:	South Chesapeake
Start Date:	7/1/2021	Project Status:	Proposed
Est. Completion Date:	6/30/2029		

## Description:

This project provides for land acquisition and construction of a new Fire/EMS facility in the Grassfield area near the northern end of Dominion Boulevard. The new facility will be a joint Fire/EMS and Police Station.

## Justification:

This project addresses proposed development in the Dominion Corridor Study that will increase demands for Fire and EMS service. The new station is necessary to maintain the City's ISO rating, which impacts insurance premiums paid by businesses and citizens. (ISO is an advisory organization that provides information about property/casualty insurance risk.)

## Comments:

Project design and construction has been delayed beyond FY 2026. Currently, this area is served by Fire Station #13 (Cornland) and Fire Station #15 (Bells Mill). This area has experienced significant growth over the past ten years, with the development of commercial, residential, and multi-family dwellings. Intensive commercial and residential development is expected to continue in this area.

## Project Forecast:

Year	Total Expense	Total Revenue	Difference
2022			0
2024			0
	0	0	0

## Project Details 2022:

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Cash - Lockbox City	500,000				500,000
G.O. Debt - City				13,220,000	13,220,000
<b>Total Revenue</b>	<b>500,000</b>			<b>13,220,000</b>	<b>13,720,000</b>
<b>Expense</b>					
Design & Engineering				975,000	975,000
Construction				6,612,000	6,612,000
Land Acquisition	500,000				500,000
Equipment				4,896,000	4,896,000
Other				737,000	737,000
<b>Total Expense</b>	<b>500,000</b>			<b>13,220,000</b>	<b>13,720,000</b>



# 16-220: Fire Station #4 Replacement

Department:	Public Safety Capital Projects		
Project Type:	Replacement	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2018	Planning Area:	Great Bridge
Start Date:	7/1/2021	Project Status:	Proposed
Est. Completion Date:	6/30/2029		

**Description:**

This project provides for the replacement of Fire Station #4 located on North Battlefield Boulevard on a different site.

**Justification:**

The replacement of Fire Station #4 has been identified as a critical need for several years. The station was built in 1962 and serves the North Battlefield Boulevard/West Greenbrier area. It is small, outdated, and does not meet current demands for training, meetings, or personal space. Since it was built, the station has been remodeled and enlarged several times. The ventilation system is inadequate causing exhaust fumes from the bay to flow into living areas. The current parcel of land is only one acre and too small to accommodate a modern fire station.

**Comments:**

The project first appeared in the FY 2020 to FY 2025 CIP. Cost estimates include land, design and construction of a new facility.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2022			0
2024			0
2025	975,000	975,000	0
2026			0
	<b>975,000</b>	<b>975,000</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Cash - Lockbox City	900,000				<b>900,000</b>
G.O. Debt - City			975,000	9,072,000	<b>10,047,000</b>
<b>Total Revenue</b>	<b>900,000</b>		<b>975,000</b>	<b>9,072,000</b>	<b>10,947,000</b>
<b>Expense</b>					
Design & Engineering			975,000		<b>975,000</b>
Construction				6,638,000	<b>6,638,000</b>
Equipment				1,558,000	<b>1,558,000</b>
Other	900,000			876,000	<b>1,776,000</b>
<b>Total Expense</b>	<b>900,000</b>		<b>975,000</b>	<b>9,072,000</b>	<b>10,947,000</b>

# 20-240: Fire Station Exhaust Removal Systems Replacement

Department:	Public Safety Capital Projects		
Project Type:	Replacement	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2020	Planning Area:	Citywide
Start Date:	7/1/2019	Project Status:	Proposed
Est. Completion Date:	12/31/2021		

**Description:**

This project will provide for the removal and replacement of the vehicle exhaust filtering systems in twelve fire station apparatus bays.

**Justification:**

Many studies indicate that breathing vehicle exhaust fumes inside the firehouse can cause or contribute to serious illnesses (emphysema, cancer, heart attack, and stroke) and NIOSH recommends that diesel exhaust be regarded as an occupational carcinogen (causing cancer).

The exhaust from engines burning diesel fuel is a complex mixture of gases and fine particulates. They contain toxic substances that disperse in the breathing area in a firehouse. Also, exhaust residue adheres to walls and other surfaces, and becomes embedded in clothing, furniture, etc., where it can be absorbed through the skin. "Workers exposed to diesel exhaust face the risk of adverse health effects ranging from headaches and nausea to cancer and respiratory disease" (OSHA). These findings underscore the urgency of totally eliminating hazardous exhaust emissions from any facility. The International Mechanical Code (IMC), which serves as a guide for state building codes, requires that all toxic emissions from diesel exhaust be eliminated for the protection of those who occupy the premises.

To address the vehicle apparatus exhaust issue, the Fire Dept. installed air scrubbers in all fire stations in 2006. These aged systems, after cutting on and off at least twice per emergency response over the last twelve years, have worn down and do not offer the same protection they once did. Also, newer technology can clean and filter more air more frequently. The new system cleans air in the apparatus bay at a rate exceeding six air exchanges per hour.

The new fire stations under development will have the new air filtering technology. This project will outfit the Fire Dept.'s other twelve stations.

**Comments:**

This exhaust removal system is used by Louden County, the City of Alexandria, as well as by government fire stations, including NASA hanger bays. This system exceeds OSHA and NFPA 1,500 air exchange requirements.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
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**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund		300,000			300,000
<b>Total Revenue</b>		<b>300,000</b>			<b>300,000</b>
<b>Expense</b>					
Equipment		300,000			300,000
<b>Total Expense</b>		<b>300,000</b>			<b>300,000</b>

# 29-250: Fire/Police - Base Station Radio Replacement

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	Replacement	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2021	Planning Area:	Citywide
Start Date:	7/1/2023	Project Status:	Proposed
Est. Completion Date:	6/30/2025		

**Description:**

This project will replace the 65 obsolete Motorola XTL5000 Console radios (Base Stations) in Fire Stations, Police Precincts, and Public Safety headquarters/administrative offices to provide reliable radio communications for Public Safety first responders during routine and emergency incidents.

**Justification:**

These radios are essential for maintaining reliable communications for Public Safety first responders with the Emergency Operations Center during extreme weather events due to their higher power and elevated antenna systems.

**Comments:**

Existing Consolettes have been in service for over 12 years. They have reached end-of-life and need to be replaced. The manufacturer will no longer provide support for these devices after July 1, 2022.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2023	250,000	250,000	0
2024	250,000	250,000	0
2025	250,000	250,000	0
	<b>750,000</b>	<b>750,000</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - Other Funds			750,000		<b>750,000</b>
<b>Total Revenue</b>			<b>750,000</b>		<b>750,000</b>
<b>Expense</b>					
Equipment			750,000		<b>750,000</b>
<b>Total Expense</b>			<b>750,000</b>		<b>750,000</b>

**Operating Budget Impact:**

Year	Exp (Rev)	FTE Impact
2024	25,000	0.0
2025	50,000	0.0
2026	75,000	0.0

## 22-210: Jail - Kitchen Equipment Replacement

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	Replacement	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2017	Planning Area:	Great Bridge
Start Date:	7/1/2017	Project Status:	Proposed
Est. Completion Date:	6/30/2026		

### Description:

This project will provide for the replacement of retherm units and the ice machine in the Chesapeake Correctional Center.

### Justification:

The retherm units in the facility used to prepare/warm meals for inmates are reaching the end of their useful life. Due to frequent repairs, maintenance staff recommended replacement. Large units cost \$13,000 and small units cost \$11,000. This project would replace five (5) units each year until all units have been replaced. The ice machine also needs to be replaced.

### Comments:

On May 8, 2018 City Council transferred \$1,516 in available appropriations to CIP 23-210 "Jail - Laundry Equipment".

### Project Forecast:

Year	Total Expense	Total Revenue	Difference
2022	40,502	40,502	0
2023	210,778	210,778	0
2024	71,926	71,926	0
2025	40,000	40,000	0
2026	40,000	40,000	0
	<b>403,206</b>	<b>403,206</b>	<b>0</b>

### Project Details 2022:

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund	194,484	40,502	322,704		<b>557,690</b>
Cash - Lockbox City			40,000		<b>40,000</b>
<b>Total Revenue</b>	<b>194,484</b>	<b>40,502</b>	<b>362,704</b>		<b>597,690</b>
<b>Expense</b>					
Equipment	194,484	40,502	362,704		<b>597,690</b>
<b>Total Expense</b>	<b>194,484</b>	<b>40,502</b>	<b>362,704</b>		<b>597,690</b>

# 25-210: Jail - Surveillance System Digital Conversion & Additional Cameras

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	Replacement	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2017	Planning Area:	Great Bridge
Start Date:	7/1/2016	Project Status:	Proposed
Est. Completion Date:	6/30/2024		

**Description:**

This project will replace all existing analog surveillance cameras within the jail, which will complete the conversion to an all-digital surveillance camera system. This project will also install 36 additional cameras, which will be added to each day room area in the Old Jail, the 1987 Addition, and the Old Work Force Center. The same model will be purchased for the replacement and additional cameras (corner mount, no grip, vandal resistant digital security camera with service monitor cables).

**Justification:**

An all-digital system will eliminate the errors and issues introduced in the conversion process. The digital system will also produce a clearer picture and sharper resolution, which will aid in correctional and court related investigations. Converting to an all-digital facility will allow for a more robust system making it possible to implement more effective redundancy. The 36 additional cameras will reduce blind spots in the correctional facility, which will help provide a safer working environment for deputies and a safer living environment for inmates.

**Comments:**

The current surveillance system consists of a Video Management System (VMS) Server controlling a mixture of analog and digital cameras. Several projects have converted some of the cameras from analog to digital and the VMS server was recently upgraded. There are approximately 152 analog cameras remaining. Currently, there is limited or no video in the areas identified above as needing the additional 36 digital cameras.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
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**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund		722,000			722,000
<b>Total Revenue</b>		<b>722,000</b>			<b>722,000</b>
<b>Expense</b>					
Equipment		722,000			722,000
<b>Total Expense</b>		<b>722,000</b>			<b>722,000</b>

# 21-240: Jail Booking Area Facility Renovation

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Department:	<b>Public Safety Capital Projects</b>		
Project Type:	Renovation or Rehabilitation	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2020	Planning Area:	Great Bridge
Start Date:	7/1/2019	Project Status:	Proposed
Est. Completion Date:	9/30/2021		

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**Description:**

This project will renovate the booking section of the Chesapeake Correctional Center. This project will include redesigning the floor footprint to incorporate the body scanner system, provide access to the Police Lobby, increase the working space for Sheriff's Deputies, and increase the seating space for inmates. It will also move the sliding doors and replace them with a pneumatic (pressurized air controlled) sliding door.

**Justification:**

This area receives 24 hour per day foot traffic and is in need of reconfiguration and renovation.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
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**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund	150,000				150,000
<b>Total Revenue</b>	<b>150,000</b>				<b>150,000</b>
<b>Expense</b>					
Construction	150,000				150,000
<b>Total Expense</b>	<b>150,000</b>				<b>150,000</b>

# 30-250: P25 Radio System Upgrade

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	System Acquisition or Upgrade	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2021	Planning Area:	Citywide
Start Date:	9/1/2020	Project Status:	Proposed
Est. Completion Date:	6/30/2022		

**Description:**

This project will upgrade the City's P25 radio system to: 1) improve the security of the radio system by implementing TLS 1.2 in accordance with cyber-security best practices and US DoD requirements; 2) establish an interface between the P25 radio system and the City's Computer-Aided Dispatch (CAD) system to allow for instant status text messages from first responders and standardized TIA-102 Tier 2 subscriber radio location services to aid dispatch and incident commanders with first responder locations; and 3) add additional redundancy and resilience in the supporting application server infrastructure.

**Justification:**

The P25 radio system is critical to the daily operations of many City departments, especially Public Safety emergency responders. The upgraded P25 radio system with enhanced functionality is paramount to providing for the safety and coordination of Public Safety emergency responders. The P25 radio system and the Computer-Aided Dispatching system interface will allow information such as GPS coordinates and status alerts to pass between the systems to save critical time during emergencies.

**Comments:**

The P25 radio system has served the City's emergency responders and others well over the last few years. The system is being used by Chesapeake Public Schools and the Regent University Police Department. This upgrade will take the P25 radio system to the next level, and will allow for an interface to the CAD system to provide real-time GPS locations of Public Safety emergency responders to greatly enhance incident response.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
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**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - Other Funds	1,100,000				1,100,000
<b>Total Revenue</b>	<b>1,100,000</b>				<b>1,100,000</b>
<b>Expense</b>					
Equipment	968,000				968,000
Software	132,000				132,000
<b>Total Expense</b>	<b>1,100,000</b>				<b>1,100,000</b>

**Operating Budget Impact:**

Year	Exp (Rev)	FTE Impact
2023	330,000	0.0
2024	330,000	0.0
2025	330,000	0.0
2026	330,000	0.0

# 31-250: Police - 911 Recording Solution Replacement

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	Replacement	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2021	Planning Area:	Citywide
Start Date:	7/1/2023	Project Status:	Proposed
Est. Completion Date:	6/30/2025		

**Description:**

This project will replace the 911 recording solution for phone and radio traffic.

**Justification:**

State Law requires the 911 center to record telephone and radio transmission coming into and exiting the 911 center. This equipment is mission critical to the 911 center and to the City.

**Comments:**

The current VPI recording solution will go end of life on 12/31/2023 and needs to be replaced.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2024	300,000	300,000	0
	<b>300,000</b>	<b>300,000</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund			300,000		300,000
<b>Total Revenue</b>			<b>300,000</b>		<b>300,000</b>
<b>Expense</b>					
Equipment			300,000		300,000
<b>Total Expense</b>			<b>300,000</b>		<b>300,000</b>

**Operating Budget Impact:**

Year	Exp (Rev)	FTE Impact
2025	30,000	0.0
2026	30,000	0.0



# 34-240: Police - Electronic Summons Collection Equipment

Department: **Public Safety Capital Projects**  
 Project Type: System Acquisition or Upgrade      Comprehensive Plan Goal Area: Public Services Facilities  
 Year identified: 2020      Planning Area: Citywide  
 Start Date: 7/1/2019      Project Status: Proposed  
 Est. Completion Date: 6/30/2022

**Description:**

This project will provide for the acquisition and maintenance of the electronic summons system.

**Justification:**

On May 14, 2019, City Council authorized a five dollar (\$5) summons fee to fund the cost to acquire and maintain an electronic summons system. Estimates indicate annual collections of between \$116,000 and \$138,000 annually. The Police Dept. has identified the need to acquire five units. This project will fund the purchase of three units in FY 2020 and two more in FY 2021.

**Comments:**

On June 25, 2019, City Council approved an amendment to the FY 2020-24 CIP that added this as a new project and appropriated \$120,000 for FY 2020.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
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**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund	200,000				200,000
<b>Total Revenue</b>	<b>200,000</b>				<b>200,000</b>
<b>Expense</b>					
Other	200,000				200,000
<b>Total Expense</b>	<b>200,000</b>				<b>200,000</b>

# 34-250: Police - Portable Radio Replacement

Department:	Public Safety Capital Projects		
Project Type:	Replacement	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2021	Planning Area:	Citywide
Start Date:	7/1/2021	Project Status:	Proposed
Est. Completion Date:	6/30/2022		

**Description:**

This project completes the replacement of existing Motorola radios. It replaces Motorola units that are at end of service life.

**Justification:**

The Motorola APX6000 radios are coming to end of life and support in 2023. This project will allow the orderly transition to new units.

**Comments:**

With the upgrade of the P25 radio system, new radios will provide greater functionality. This project will replace the final 349 Harris XL185P portable radios to complete replacement of 507 portable radios in total. 156 radios were previously replaced.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2022	550,000	550,000	0
2023	550,000	550,000	0
2024	550,000	550,000	0
	<b>1,650,000</b>	<b>1,650,000</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund		550,000	1,100,000		<b>1,650,000</b>
<b>Total Revenue</b>		<b>550,000</b>	<b>1,100,000</b>		<b>1,650,000</b>
<b>Expense</b>					
Equipment		550,000	1,100,000		<b>1,650,000</b>
<b>Total Expense</b>		<b>550,000</b>	<b>1,100,000</b>		<b>1,650,000</b>

**Operating Budget Impact:**

Year	Exp (Rev)	FTE Impact
2023	55,000	0.0
2024	110,000	0.0
2025	165,000	0.0
2026	165,000	0.0

# 22-240: Police & Sheriff - Virtual Firearm Training/Safety Awareness System

Department:	Public Safety Capital Projects		
Project Type:	Equipment	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2020	Planning Area:	Citywide
Start Date:	7/1/2019	Project Status:	Proposed
Est. Completion Date:	7/30/2021		

**Description:**

This project will provide a virtual firearms training and safety awareness system and equipment that the Police Dept. and Sheriff's Office will use for training. Through virtual simulation, Police Officers and Sheriff's Deputies will be better trained in firearms manipulation. From active shooter scenarios in the courts, hostile traffic stops, to proper grip and stance, the virtual simulator can better hone those skills. With the portability of the simulator, staff will be able to educate the public on some of the same simulations connecting Public Safety employees and those they serve. Both departments will also continue to educate the private sector through community centers, events, etc. with increased safety because the need for live ammo is eliminated by the virtual simulator.

**Justification:**

Virtual Simulators are able to create better habits through increased trigger time without increasing the use of live ammo or increasing the cost. It presents a safer way to train, allows for training that is nearly impossible on a traditional firing range, and develops finer skills of acquiring a target while moving. While training takes place in a classroom setting, the virtual simulation allows the trainee to implement learned techniques safely and repeatedly. Further, the realism of the simulation offers the public a look into what Public Safety officers face daily.

**Comments:**

With the increased officer related issues in communities it is important to better train Public Safety Employees. The current firing range is not up-to-date with the latest technologies. It is not currently suited to offer the extra level of training like that of Virtual Simulation. Also, the training space does not offer the public a view of what public safety personnel do and the reasons why it needs to be done.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
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**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund	340,000				340,000
<b>Total Revenue</b>	<b>340,000</b>				<b>340,000</b>
<b>Expense</b>					
Equipment	340,000				340,000
<b>Total Expense</b>	<b>340,000</b>				<b>340,000</b>

**Operating Budget Impact:**

Year	Exp (Rev)	FTE Impact
2023	37,000	0.0
2024	37,000	0.0
2025	37,000	0.0
2026	37,000	0.0

# 13-230: Police and Fire - Door Card Control Panel Replacement and Fire Station Access

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Department:	<b>Public Safety Capital Projects</b>		
Project Type:	System Acquisition or Upgrade	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2019	Planning Area:	Great Bridge
Start Date:	7/1/2019	Project Status:	Proposed
Est. Completion Date:	7/30/2021		

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**Description:**

This project will replace the door card control panels in the Police / Fire Dept. Headquarters (HQ) building and the Juvenile and Domestic Relations (J&DR) Court building because the panels have reached end of life. It will also install door card access systems at all fire stations.

**Justification:**

This project is needed to replace outdated equipment, provide better security, and standardize the door card system across public safety departments.

**Comments:**

The door card system control panels need to be replaced in the Police/Fire HQ and J&DR Court buildings because the panels have reached end of life and the systems have expanded beyond the capacity these panels can handle. Additionally, the fire station buildings need to be placed on the door security system.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
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**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund	110,000				110,000
Cash - Lockbox City	23,500				23,500
<b>Total Revenue</b>	<b>133,500</b>				<b>133,500</b>
<b>Expense</b>					
Equipment	133,500				133,500
<b>Total Expense</b>	<b>133,500</b>				<b>133,500</b>

# 15-230: Police, Fire, and Sheriff - New World App

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	System Acquisition or Upgrade	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2019	Planning Area:	Citywide
Start Date:	7/1/2019	Project Status:	Proposed
Est. Completion Date:	6/30/2022		

**Description:**

This project will provide for the acquisition of the New World App to be utilized by the Police, Fire, and Sheriff.

**Justification:**

This application will provide better and faster access to mission critical information. This application will allow designated members of the Fire and Police Departments and Sheriff's Office to use tablets and smart phones in the field to access critical information in the current CAD and Records Management System.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
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**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund	102,000				<b>102,000</b>
<b>Total Revenue</b>	<b>102,000</b>				<b>102,000</b>
<b>Expense</b>					
Other	102,000				<b>102,000</b>
<b>Total Expense</b>	<b>102,000</b>				<b>102,000</b>

**Operating Budget Impact:**

Year	Exp (Rev)	FTE Impact
2023	21,300	0.0
2024	21,300	0.0
2025	21,300	0.0
2026	21,300	0.0

# 16-230: Public Safety Facility Issue Studies - Feasibility & Conceptual Design

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	Study	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2019	Planning Area:	Citywide
Start Date:	7/1/2018	Project Status:	Proposed
Est. Completion Date:	7/30/2023		

## Description:

This project will provide for feasibility studies and conceptual designs to address several public safety facility issues. Once the studies have concluded, future funding will be needed to implement the recommendations.

## Justification:

The current public safety academy and scenario-based training facilities have major condition and logistics issues that require attention. The Public Safety Building (located behind City Hall) also has condition issues, and unoccupied office space (with the opening of the new Public Safety Operations Building) that requires evaluation to determine the best reuse. The current police evidence storage facility is at capacity and requires additional storage space (localities must store some evidence for 100 years). Studies are needed to provide the best plan to address all of these needs. The feasibility study for the Public Safety Building located on Albemarle Drive will evaluate all building conditions, city space needs, and police evidence storage space needs. The conceptual design will address the best reuse of the facility, building refurbishments, and adequate evidence storage requirements.

## Comments:

Several studies are planned to evaluate the following four public safety facility issues: 1) feasibility and cost of a joint public safety academy training facility, 2) feasibility and cost to replace scenario-based training facilities for field training, 3) the best reuse of the former Dispatch Center located in the Public Safety Building on Albemarle Drive behind City Hall, and 4) feasibility and cost to enlarge the Albemarle Drive facility to add customer service and storage space for police evidence.

## Project Forecast:

Year	Total Expense	Total Revenue	Difference
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## Project Details 2022:

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund	750,000				<b>750,000</b>
G.O. Debt - City				16,696,000	<b>16,696,000</b>
<b>Total Revenue</b>	<b>750,000</b>			<b>16,696,000</b>	<b>17,446,000</b>
<b>Expense</b>					
Design & Engineering				1,500,000	<b>1,500,000</b>
Construction				15,196,000	<b>15,196,000</b>
Other	750,000				<b>750,000</b>
<b>Total Expense</b>	<b>750,000</b>			<b>16,696,000</b>	<b>17,446,000</b>

# 17-230: Public Safety Two Factor Authentication System Upgrade

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	System Acquisition or Upgrade	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2019	Planning Area:	Citywide
Start Date:	7/1/2020	Project Status:	Proposed
Est. Completion Date:	7/30/2023		

**Description:**

This project will provide for the upgrade or replacement of the Two Factor Authentication system used by the City's Public Safety departments.

**Justification:**

The FBI's Division of Criminal Justice Information Services (CJIS) mandates that public safety agencies utilize Two Factor Authentication systems for security. Compliance with this mandate is enforced by the FBI and the Virginia State Police. This project will ensure the existing system is updated or replaced to stay in compliance.

**Comments:**

The current Two Factor Authentication system was purchased in 2013, and is now due for upgrade or replacement.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
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**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund	100,000				100,000
<b>Total Revenue</b>	<b>100,000</b>				<b>100,000</b>
<b>Expense</b>					
Other	100,000				100,000
<b>Total Expense</b>	<b>100,000</b>				<b>100,000</b>

**Operating Budget Impact:**

Year	Exp (Rev)	FTE Impact
2023	15,000	0.0
2024	15,000	0.0
2025	15,000	0.0
2026	15,000	0.0

# 43-250: Sheriff - Radio Replacement

Department:	<b>Public Safety Capital Projects</b>		
Project Type:	Replacement	Comprehensive Plan Goal Area:	Public Services Facilities
Year identified:	2021	Planning Area:	Citywide
Start Date:	7/1/2017	Project Status:	Proposed
Est. Completion Date:	6/30/2026		

**Description:**

This project will replace the 430 radios used by the Sheriff's Office, which include 208 radios that are already at the end of useful service life.

**Justification:**

While working in the public safety environment, it is imperative that all deputies are safe and secure. The first part of accomplishing that safety is communication. These radios enable the deputies to know what is going on around them and reach out for help when necessary. The radios are also equipped with distress buttons that contact police dispatch if a deputy is unable to speak.

**Comments:**

The Sheriff's Office previously took over possession of 208 radios along with maintenance plans from the Police Department to outfit all Sheriff's deputies and support staff. The radios have reached the end-of-life cycle, and have been unsupported since 2018. This project would phase in the total radio replacement needs over five years. The unsupported radios will be replaced first. The project includes the cost of each radio plus a five-year warranty. The Sheriff's Office will plan for continued warranty and support after five years in the annual operating budget.

**Project Forecast:**

Year	Total Expense	Total Revenue	Difference
2022	90,000	90,000	0
2023	90,000	90,000	0
2024	90,000	90,000	0
2025	165,950	165,950	0
2026	165,950	165,950	0
	<b>601,900</b>	<b>601,900</b>	<b>0</b>

**Project Details 2022:**

	Prior Years	2022	2023 - 26	Future Years	Total Amount
<b>Revenue</b>					
Fund Balance - General Fund	90,000	90,000	345,950		<b>525,950</b>
Cash - Lockbox City			165,950		<b>165,950</b>
<b>Total Revenue</b>	<b>90,000</b>	<b>90,000</b>	<b>511,900</b>		<b>691,900</b>
<b>Expense</b>					
Equipment	90,000	90,000	511,900		<b>691,900</b>
<b>Total Expense</b>	<b>90,000</b>	<b>90,000</b>	<b>511,900</b>		<b>691,900</b>