



Public Safety Functional Team





County of Roanoke, Virginia FY 2021 – FY 2030 Adopted Capital Improvement Program Public Safety Summary

Note: Projects with \$0 in FY 2021-2030 are active projects that have been fully funded in prior fiscal years.

Functional Team/Department/Project	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030	FY 21-30 Total
Public Safety											
Sheriff											
Roanoke County Jail Abatement	\$0	\$0	\$179,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$179,000
Sheriff's Office Capital Maintenance Program	70,000	110,000	110,000	125,000	125,000	125,000	125,000	175,000	165,000	155,000	1,285,000
<i>Sheriff Total</i>	70,000	110,000	289,000	125,000	125,000	125,000	125,000	175,000	165,000	155,000	1,464,000
Communications & IT											
Digital Microwave Ring Replacement	327,000	0	0	0	0	0	0	0	0	0	327,000
Public Safety Communications Infrastructure	150,000	0	0	0	0	0	0	0	0	0	150,000
Emergency 911 Phone System Upgrade	0	0	444,000	0	0	0	0	0	0	0	444,000
Emergency Medical Dispatch	0	0	150,000	0	0	0	0	0	0	0	150,000
<i>Communications & IT Total</i>	477,000	0	594,000	0	0	0	0	0	0	0	1,071,000
Fire & Rescue											
Diesel Exhaust Removal System	100,000	50,000	300,000	0	0	0	0	0	0	0	450,000
Fire and Rescue Ballistic Body Armor	70,000	0	0	0	0	0	0	0	0	0	70,000
Fire Station Renovation/Replacement	0	0	0	0	0	0	0	100,000	10,500,000	0	10,600,000
<i>Fire & Rescue Total</i>	170,000	50,000	300,000	0	0	0	0	100,000	10,500,000	0	11,120,000
Courthouse and Court Services											
Courthouse Parking Lot Renovations	0	106,839	0	0	0	0	0	0	0	0	106,839
Courthouse HVAC Replacement	0	25,000	512,000	0	0	0	0	0	0	0	537,000
Courthouse and Court Services Carpeting	0	0	466,000	0	0	0	0	0	0	0	466,000
<i>Courthouse and Court Services Total</i>	0	131,839	978,000	0	0	0	0	0	0	0	1,109,839
Public Safety Total	\$717,000	\$291,839	\$2,161,000	\$125,000	\$125,000	\$125,000	\$125,000	\$275,000	\$10,665,000	\$155,000	\$14,764,839



Roanoke County Jail Abatement

Department: Sheriff

Location: 401 East Main Street, Salem, VA 24153

Magisterial District: City of Salem

Category: Replacement

Est. Useful Life: 15 years

Project Status: Planned

Financial Summary

	Total Cost	Through FY 2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total FY 21 - FY 30
Total Project Cost	179,000	0	0	0	179,000	0	0	0	0	0	0	0	179,000
Funding Sources													
Lease /Revenue Bonds	147,000	0	0	0	147,000	0	0	0	0	0	0	0	147,000
City of Salem	32,000	0	0	0	32,000	0	0	0	0	0	0	0	32,000
Total Funding Sources	179,000	0	0	0	179,000	0	0	0	0	0	0	0	179,000
Operating Impacts			0	0	14,485	0	0	0	0	0	0	0	14,485



Project Summary:

The Roanoke County Jail abatement project consists of removal of VCT tile and mastic in all but one inmate housing units, as well as all staff work areas, jail intake area and medical section of the jail. Vinyl laminate sheet flooring was installed over VCT tile. The mastic adhesive is deteriorating and causing the VCT tile to become loose and float under the sheet laminate. This is causing the sheet laminate to separate, exposing the asbestos fibers, which may become airborne and pose a significant health risk to staff and inmates. The Jail division has had emergency abatement performed on the 4th, 5th, and 6th floor areas as safety issues have occurred. The total estimated cost to complete this project is \$179,000 estimated for abatement, cleaning, and sealing. The City of Salem is anticipated to contribute \$32,000 for this project.



Roanoke County Jail Abatement (continued)

Project Description and Justification:

The flooring throughout the jail facility consists of sheet vinyl that was installed over VCT tile. The VCT tile and mastic both contain asbestos. Deteriorating mastic adhesive may cause the sheet vinyl to separate exposing the asbestos fibers. During prior CIP projects, the floor tile and adhesive mastic were tested and determined to contain asbestos. Asbestos flooring is still present in the staff work areas, 11 inmate housing units, the jail intake area, and the Medical section of the jail. This project will abate the remaining asbestos flooring throughout the jail facility and reseal the concrete flooring. The City of Salem will be responsible for a portion of the costs.

Additional Operating Impacts:

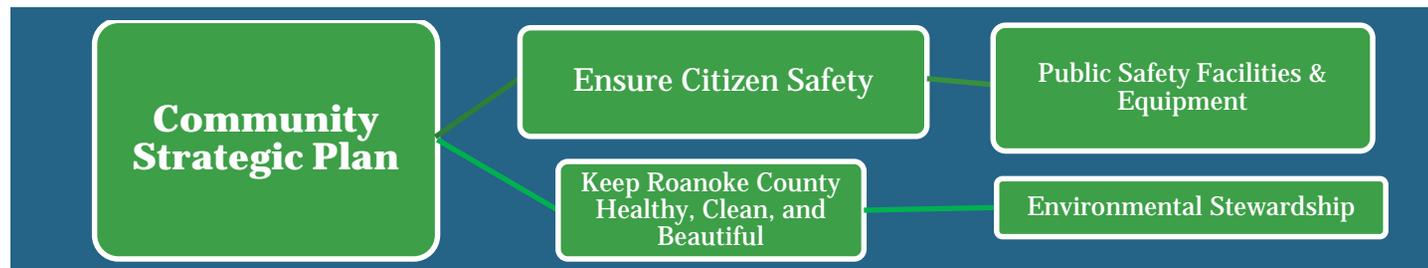
In order to facilitate the abatement and sealing process for inmate housing areas, temporary housing for inmates at the Western Virginia Regional Jail may cost up to \$14,485 during the project. Abating the remaining asbestos flooring will reduce annual maintenance costs associated with the upkeep of sheet vinyl flooring.

Conformance with Plans, Policies, and Legal Obligations:

The Roanoke County/Salem Jail has a legal obligation to comply with the Minimum Standards for Local Jails and Lockups as established by the Virginia Board of Corrections. Standard 6VAC15-40-1140: the facility floors, halls, corridors, and other walkway areas shall be maintained in a clean, dry, hazard-free manner. Additionally, in order to maintain accreditation with the American Correctional Association, the jail is required to comply with their standards regarding safety. This project was identified as a critical need in the Facility Conditions Assessment completed in 2019.

Project Highlights and Key Milestones:

- The original VCT tile and mastic were installed in 1978-79 during the original construction of the jail.
- Vinyl laminate sheeting was installed over the VCT tile and mastic in 2008.
- Abatement of one housing unit was completed in October 2014.
- There have been incidents of VCT tile and mastic separating from laminate flooring.
- City of Salem is anticipated to contribute \$32,000 to this project.





Sheriff's Office Capital Maintenance Program

Department: Sheriff

Location: Countywide

Magisterial District: Countywide

Category: Capital Maintenance Program

Est. Useful Life: 10-15 years

Project Status: Active

Financial Summary

	Total Cost	Through FY 2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total FY 21 - FY 30
Total Project Cost	1,729,000	444,000	70,000	110,000	110,000	125,000	125,000	125,000	125,000	175,000	165,000	155,000	1,285,000
Funding Sources													
Roanoke County - Unrestricted Cash	1,729,000	444,000	70,000	110,000	110,000	125,000	125,000	125,000	125,000	175,000	165,000	155,000	1,285,000
Total Funding Sources	1,729,000	444,000	70,000	110,000	110,000	125,000	125,000	125,000	125,000	175,000	165,000	155,000	1,285,000
Operating Impacts			0	0	0	0	0	0	0	0	0	0	0



Project Summary:

The Capital Maintenance Program (CMP) is the vehicle in which County assets are programmed to receive regular maintenance and repair. Dedicating resources each year to the Sheriff CMP will fund repairs and maintenance maximizing the life of the County Jail and Courthouse.



Capital Maintenance Program (continued)

Project Description and Justification:

The Capital Maintenance Program (CMP) is the vehicle in which County assets are programmed to receive regular maintenance and repair. Ongoing preventive maintenance of all facilities will help ensure the safety and value of these assets while avoiding potentially large costs resulting from lack of proper maintenance. Dedicating resources each year to the Sheriff CMP will fund repairs and maintenance maximizing the life of the County Jail and Courthouse. Funding is planned at \$70,000 in FY 2021 with planned increases based on facility needs and availability of funding sources.

Additional Operating Impacts:

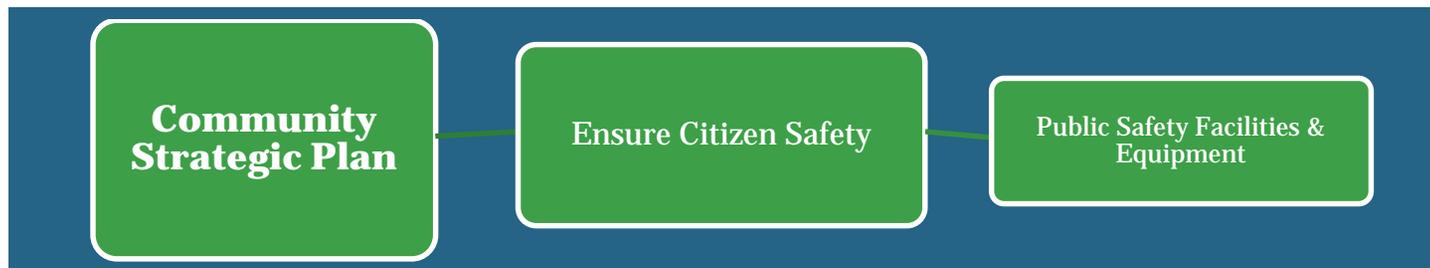
Direct impact to the operating budget from the Capital Maintenance Program primarily comes from the additional staff time necessary to assess and implement repairs and maintenance. While repair and maintenance projects can have significant upfront costs, the long-term effect is a reduction in overall total cost and an increase in departmental efficiency. Over time, it is expected that ongoing preventive maintenance will actually reduce operating costs and enhance service levels.

Conformance with Plans, Policies, and Legal Obligations:

Maintenance and upkeep of County assets is necessary to maximize the potential of taxpayer funded buildings and facilities.

Project Highlights and Key Milestones:

- The Sheriff's Office received no dedicated funding for capital maintenance of facilities until FY 2016.
- In FY 2016, the CMP expanded to a 10-year funding schedule and first included in the Capital Improvement Program.





Digital Microwave Ring Replacement

Department: CommIT

Category: Replacement

Location: Countywide

Est. Useful Life: 10-15 years

Magisterial District: Countywide

Project Status: Active

Financial Summary

	Total Cost	Through FY 2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total FY 21 - FY 30
Total Project Cost	813,000	486,000	327,000	0	0	0	0	0	0	0	0	0	327,000
Funding Sources													
Roanoke County -													
Unrestricted Cash	327,000	0	327,000	0	0	0	0	0	0	0	0	0	327,000
CommIT Fund Balance	161,000	161,000	0	0	0	0	0	0	0	0	0	0	0
Transfer from CommIT	325,000	325,000	0	0	0	0	0	0	0	0	0	0	0
Total Funding Sources	813,000	486,000	327,000	0	0	0	0	0	0	0	0	0	327,000
Operating Impacts			0	65,000	66,950	68,959	71,027	73,158	75,353	77,613	79,942	82,340	660,342



Project Summary:

The Digital Microwave Ring Replacement project, with funding scheduled from FY 2019 through FY 2021, replaces the County's 14 Microwave Radios, which have been in service since 2006. The rings currently in use met their anticipated end-of-life date in 2017 and are no longer compatible with the newest operating and flash port software. New equipment and technology will offer more functionality and efficiency than current County microwave rings.



Digital Microwave Ring Replacement (continued)

Project Description and Justification:

This project replaces the County’s 14 Microwave Radios. The County’s 14 Microwave Radios have been in service since 2006 and have a lifespan of approximately 10 years with an end of life date in 2017. This project will also include an additional Microwave link, to include spare radios.

Replacement is necessary because the current radios are no longer compatible with the most current operating/flash port software. Equipment and technology now available in the marketplace are much more versatile than the equipment currently in use in Roanoke County. Replacement products may offer the County new and useful multi-functionality, such as pictures, text, video, and automatic location availability.

Additional Operating Impacts:

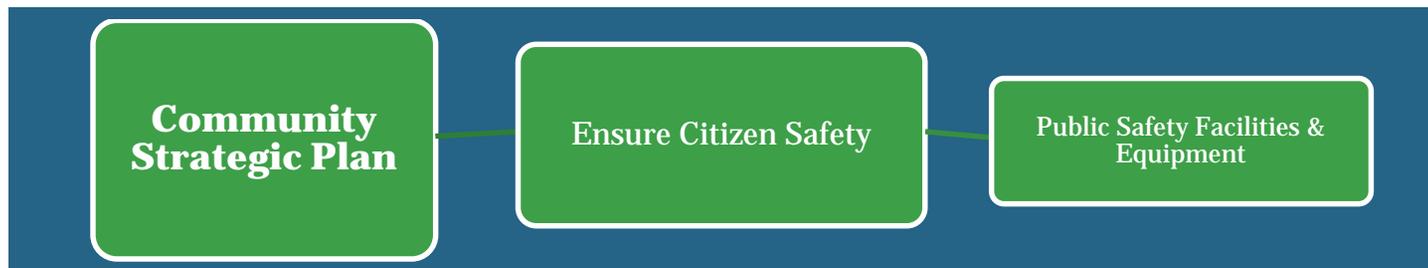
Beginning in FY 2022, there will be an estimated recurring impact on the county’s operating budget of \$65,000, with inflation added for future years, to implement additional hardware maintenance contracts. Actual costs will be known once the microwave radios, hardware, and software are purchased and will be considered as part of the FY 2022 operating budget.

Conformance with Plans, Policies, and Legal Obligations:

This project conforms with the stated mission of the Board of Supervisors to provide high quality services at reasonable costs to the citizens of Roanoke County.

Project Highlights and Key Milestones:

- The County’s 14 Microwave radios have been in operation since 2006.
- Vendor life cycle plan has the radio model at end-of-life in 2017.
- Parts production and maintenance service ended in 2019.
- Project is scheduled for funding in FY 2019 - FY 2021.





Public Safety Communications Infrastructure

Department: CommIT

Location: Countywide

Magisterial District: Countywide

Category: Replacement

Est. Useful Life: 7 years

Project Status: Active

Financial Summary

	Total Cost	Through FY 2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total FY 21 - FY 30
Total Project Cost	150,000	0	150,000	0	0	0	0	0	0	0	0	0	150,000
Funding Sources													
Roanoke County - Unrestricted Cash	150,000	0	150,000	0	0	0	0	0	0	0	0	0	150,000
Total Funding Sources	150,000	0	150,000	0	0	0	0	0	0	0	0	0	150,000
Operating Impacts			0	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	152,387



Project Summary:

The Public Safety Communications Infrastructure project, funded for FY 2021, will replace the current mountaintop routers located at all of the Roanoke Valley Radio System sites. The vendor has provided an end of life date of 2021 to the equipment currently used, which has been in use for 12 years. New routers will be computer based and compatible with commercial communication devices. This project is funded in FY 2021, which will coincide with the Digital Microwave Ring Upgrade project. Completing these projects together will provide for a more efficient and seamless upgrade to the overall connectivity of public safety radio system sites.



Public Safety Communications Infrastructure (continued)

Project Description and Justification:

The project entails replacing the current mountaintop routers located at all of the Roanoke Valley Radio System sites (Master Site, Poor Mountain, Fort Lewis Mountain, Mill Mountain and Crowell’s Gap). Franklin County is currently updating their radio infrastructure and will be purchasing the routers for Master Site and Crowell’s Gap. This project includes the purchase and installation of the 3 remaining routers located at Poor Mountain, Fort Lewis Mountain, and Mill Mountain.

The equipment will be called upon to receive greater amounts of data, such as pictures, text and video, interpret and display this data, and relay this data to units in the field. For the most efficient and seamless upgrade, this project coincides with the Microwave Ring upgrade project.

Additional Operating Impacts:

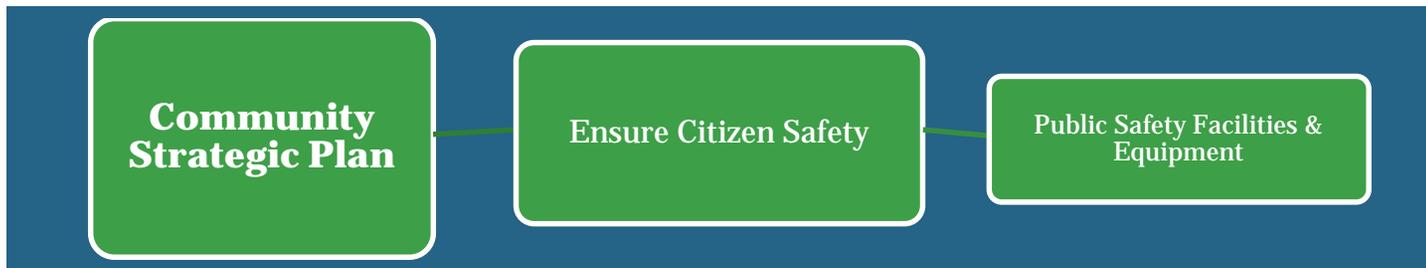
Beginning in FY 2022, there is anticipated to be a recurring impact on the operating budget of \$15,000 to implement maintenance service contracts, with inflation added for future years.

Conformance with Plans, Policies, and Legal Obligations:

This project conforms with the stated mission of the Board of Supervisors to provide high quality services at reasonable costs to the citizens of Roanoke County.

Project Highlights and Key Milestones:

- Original mountaintop routers were purchased in 2010.
- Vendor announced the end of life for current mountaintop routers as 2021.
- Project is coincides with Digital Microwave Ring Replacement project to upgrade overall connectivity of public safety radio system sites.





Emergency 911 Phone System Upgrade

Department: CommIT – Emergency Communications Center
 Location: Public Safety Center, 5925 Cove Rd, Roanoke VA 24019
 Magisterial District: Countywide

Category: Replacement
 Est. Useful Life: 7 years
 Project Status: Active

Financial Summary

	Total Cost	Through FY 2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total FY 21 - FY 30
Total Project Cost	444,000	0	0	0	444,000	0	0	0	0	0	0	0	444,000
Funding Sources													
Roanoke County -													
Unrestricted Cash	294,000	0	0	0	294,000	0	0	0	0	0	0	0	294,000
PSAP Grant Funding	150,000	0	0	0	150,000	0	0	0	0	0	0	0	150,000
Total Funding Sources	444,000	0	0	0	444,000	0	0	0	0	0	0	0	444,000
Operating Impacts			0	0	0	17,775	27,975	28,814	29,679	30,569	31,486	32,431	198,729



Project Summary:

The Emergency 911 Phone System Upgrade Project, planned for FY 2023, is anticipated to upgrade the current 911 Emergency Communications Phone System. The most recent system was installed in 2015 and will have reached the “end of life” of the equipment by 2022. The current 911 phone system, in its current hardware and software configuration, is incapable of receiving and processing calls for service from anything other than telephones. The upgraded digital system would meet the challenges of technology growth by accepting other forms of communication and would be compatible with the “Next Generation 911” systems. Upgrading to “Next Generation 911” is a more resilient system that allows voice, photos, videos and text messages to flow seamlessly from the public to the 911 network.



Emergency 911 Phone System Upgrade (continued)

Project Description and Justification:

The Emergency 911 Phone System Upgrade Project, planned for FY 2023, is anticipated to upgrade the current 911 Emergency Communications Phone System. The project is expected to be funded in part with \$150,000 in PSAP (Public Safety Answering Point) grant funds with Roanoke County covering the remaining cost.

The most recent system was installed in 2015 and will have reached the “end of life” of the equipment by 2022. The current 911 phone system, in its current hardware and software configuration, is incapable of receiving and processing calls for service from anything other than telephones. The upgraded digital system would meet the challenges of technology growth by accepting other forms of communication including voice, photos, videos and text messages.

Additional Operating Impacts:

Beginning in FY 2024, there is anticipated to be an impact on the operating budget of approximately \$17,775 to implement maintenance services. Operating impacts increase to \$27,975 each year beginning in FY 2025 of the project for maintenance services, with inflation estimates added for future years.

Conformance with Plans, Policies, and Legal Obligations:

This project conforms with the stated mission of the Board of Supervisors to provide high quality services at reasonable costs to the citizens of Roanoke County.

Project Highlights and Key Milestones:

- Current Emergency 911 Phone System purchased in FY 2014.
- County implemented “TXT2911” in FY 2016, allowing the public to send text messages (SMS) to 911.
- Expected end of life for current system is 2022.
- Project expected to receive funding from PSAP (Public Safety Answering Point) grant for \$150,000.





Emergency Medical Dispatch

Department: CommIT – 9-1-1

Category: Replacement

Location: Public Safety Center, 5925 Cove Rd, Roanoke VA 24019

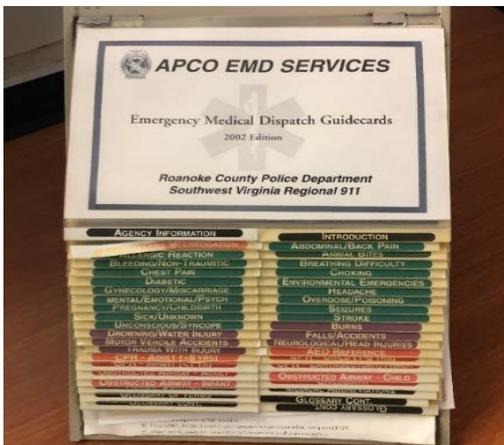
Est. Useful Life: 5 years

Magisterial District: Countywide

Project Status: New

Financial Summary

	Total Cost	Through FY 2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total FY 21 - FY 30
Total Project Cost	150,000	0	0	0	150,000	0	0	0	0	0	0	0	150,000
Funding Sources													
Roanoke County - Unrestricted Cash	150,000	0	0	0	150,000	0	0	0	0	0	0	0	150,000
Total Funding Sources	150,000	0	0	0	150,000	0	0	0	0	0	0	0	150,000
Operating Impacts			0	0	0	0	0	0	0	0	0	0	0



Project Summary:

This project proposes to upgrade the Emergency Communication Center Emergency Medical Dispatch Program in FY 2023. Emergency Medical Dispatch (EMD) is a systematic program of handling medical calls. Trained telecommunicators, using procedures locally approved by the Operational Medical Director (OMD), quickly and properly determine the nature and priority of the call, dispatch the appropriate response, then give the caller instructions to help treat the patient until the responding Emergency Medical Services (EMS) unit arrives. A comprehensive EMD program can reduce agency liability by providing thorough and consistent dispatch instructions. Total project cost is estimated at \$150,000.



Emergency Medical Dispatch (continued)

Project Description and Justification:

"Emergency Medical Dispatch" (EMD) is a systematic program of handling medical calls. Trained telecommunicators, using procedures locally approved by the Operational Medical Director (OMD), quickly and properly determine the nature and priority of the call, dispatch the appropriate response, then give the caller instructions to help treat the patient until the responding Emergency Medical Services (EMS) unit arrives. A comprehensive EMD program can reduce agency liability by providing thorough and consistent dispatch instructions. Roanoke County has used the same EMD Guide cards since December of 2006. The OMD has strongly encouraged an upgrade due to the outdated material.

The Association of Public-Safety Communications Officials (APCO) Institute's comprehensive EMD program is based on the National Standard Curriculum for EMD, and incorporates all of the current American Society for Testing and Materials and National Highway Traffic Safety Administrations guidelines. It is a cost effective way for agencies to implement an EMD program and includes customization of EMD Guide cards and locally controlled training by APCO Institute certified instructors.

Additional Operating Impacts:

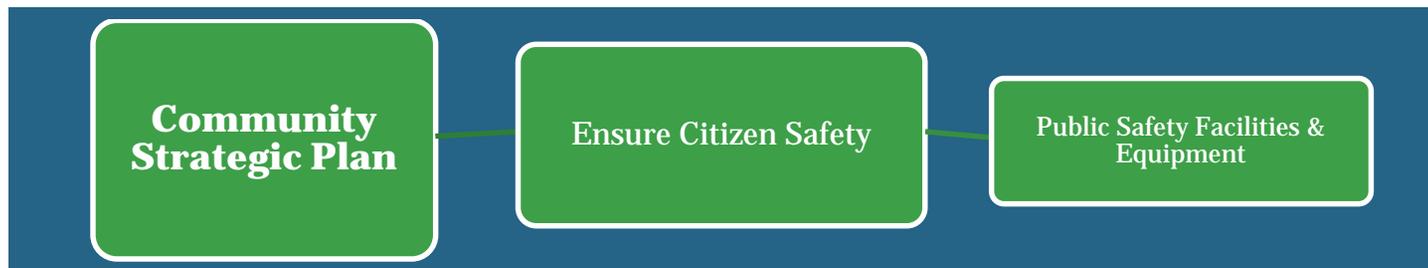
Depending on the upgrade chosen, the department may need an interface with our current Computer Aided Dispatch computers, licenses, continued training for ECC employees and software maintenance.

Conformance with Plans, Policies, and Legal Obligations:

This project conforms with the stated mission of the Board of Supervisors to provide high quality services at reasonable costs to the citizens of Roanoke County.

Project Highlights and Key Milestones:

- Roanoke County Emergency Communications Center began Emergency Medical Dispatch in January of 2000.
- The Emergency Medical Dispatch Guide Cards were updated in December of 2006.
- The Operational Medical Director indicated that the current EMD Guide Cards are outdated and recommends an upgrade as soon as possible.





Diesel Exhaust Removal System

Department: Fire and Rescue/General Services
Location: Countywide Fire and Rescue Stations
Magisterial District: Countywide

Category: New Facilities
Est. Useful Life: Varies
Project Status: Planned

Financial Summary

	Total Cost	Through FY 2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total FY 21 - FY 30
Total Project Cost	500,000	50,000	100,000	50,000	300,000	0	0	0	0	0	0	0	450,000
Funding Sources													
Department of Fire Programs	200,000	50,000	100,000	50,000	0	0	0	0	0	0	0	0	150,000
Lease/Revenue Bonds	300,000	0	0	0	300,000	0	0	0	0	0	0	0	300,000
Total Funding Sources	500,000	50,000	100,000	50,000	300,000	0	0	0	0	0	0	0	450,000
Operating Impacts			0	0	0	0	0	0	0	0	0	0	0



Project Summary:

The Diesel Exhaust Removal System project will install emission capture equipment in approximately 60 apparatus bays to capture diesel emissions. This project mounts exhaust filtration equipment to capture these emissions. The Fire and Rescue Department has planned the use of Department of Fire Program funds in the amount of \$50,000 in FY 2020 and FY 2022 and \$100,000 in FY 2021 to purchase units at stations. Bond funding in FY 2023, in the amount of \$300,000, will purchase units at the remaining fire station facilities.



Diesel Exhaust Removal System (continued)

Project Description and Justification:

The Diesel Exhaust Removal System project will install emission capture equipment in approximately 60 apparatus bays to capture diesel emissions. This project mounts an exhaust filtration equipment to capture 100% of these emissions.

Most fire apparatus and emergency response vehicles run on diesel fuel. The exhaust from these vehicles is expelled directly into the station bays. An apparatus-mounted exhaust filtration device will capture these emissions resulting in a cleaner environment.

The Fire and Rescue Department has planned the use of Department of Fire Program funds in the amount of \$50,000 in FY 2020 and FY 2022 and \$100,000 in FY 2021 to purchase units at stations. Bond funding in FY 2023, in the amount of \$300,000, will purchase units at the remaining fire station facilities.

Additional Operating Impacts:

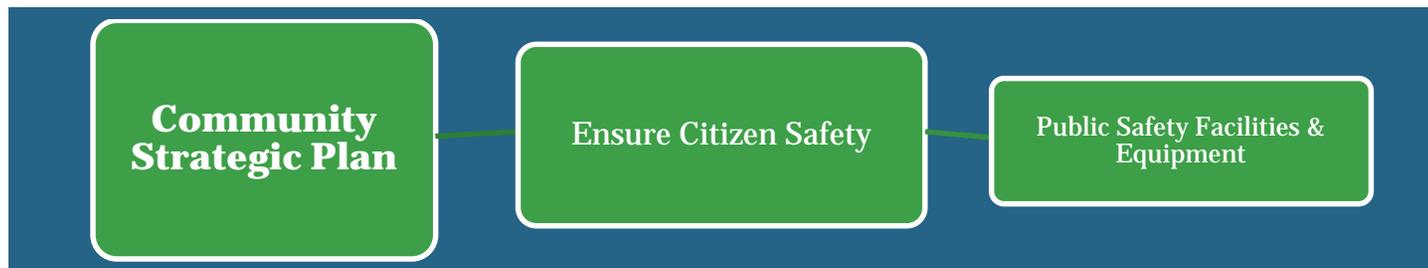
There is no anticipated additional operating impact with this project. The filtration devices come with a one-year warranty. Maintenance, repair, and replacement filter costs are anticipated to be covered by the existing budget when equipment is installed.

Conformance with Plans, Policies, and Legal Obligations:

This project relates to the departmental goal of maintaining compliance with National Fire Protection Association (NFPA), specifically the NFPA 1500 standard, which specifies the minimum requirements for an occupational safety and health program for fire departments.

Project Highlights and Key Milestones:

- Exhaust filtration device will capture vehicle emissions into station bays.
- Total cost for this project is approximately \$500,000.
- Project is planned to receive \$50,000 in Department of Fire Programs funding in FY 2020 and FY 2022 and \$100,000 in FY 2021 for a total of \$200,000.
- Bond funding in FY 2023 will fund the project an additional \$300,000 to install systems in remaining stations.
- Project originally planned for FY 2026 in prior CIP, but staff have identified this project as a priority to fund sooner.





Fire and Rescue Ballistic Body Armor

Department: Fire and Rescue

Category: New Facilities

Location: Countywide

Est. Useful Life: 5 years

Magisterial District: Countywide

Project Status: Planned

Financial Summary

	Total Cost	Through FY 2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total FY 21 - FY 30
Total Project Cost	137,000	67,000	70,000	0	0	0	0	0	0	0	0	0	70,000
Funding Sources													
Roanoke County - Unrestricted Cash	137,000	67,000	70,000	0	0	0	0	0	0	0	0	0	70,000
Total Funding Sources	137,000	67,000	70,000	0	0	0	0	0	0	0	0	0	70,000
Operating Impacts			0	0	0	0	0	0	0	0	0	0	0



Project Summary:

The Fire and Rescue Ballistic Body Armor project, funded in FY 2020 and FY 2021, purchases ballistic body armor for all fire and rescue personnel to include vests and helmets along with tactical emergency medical equipment for the treatment and transport of patients during an active shooter/intentional mass casualty incident. The purchase of this equipment will allow the County's Fire & Rescue, Police, Emergency Communications Center, and Sheriff's Offices along with the Town of Vinton's Police Department to develop a Rescue Task Force (RTF). An RTF allows fire and rescue personnel to treat and remove patients with law enforcement protection.



Fire and Rescue Ballistic Body Armor (continued)

Project Description and Justification:

In 2013, the Fire and Rescue Department along with the Police Department, and Sheriff's Office developed the Unified Hostile Incident Action Guide, which addressed responses to active threat incidents such as active shooter and intentional mass casualty incidents. In 2016, the Guide was reviewed and integrated into the County's Emergency Communications Center, and Town of Vinton Police Department. The updated Guide incorporated the rescue task force model (RTF), which is a group of fire, rescue, and law enforcement personnel responding to potential active threat incidents. This allows fire and rescue personnel, with law enforcement protection, to quickly treat major bleeds and injuries, increasing the rate of victim survival.

Capital funding, \$137,000 in FY 2020 (\$67,000) and FY 2021(\$70,000), purchases equipment including vests and helmets. Additionally, tactical emergency medical equipment and communication devices will be purchased to ensure effective communications and victim treatment.

Additional Operating Impacts:

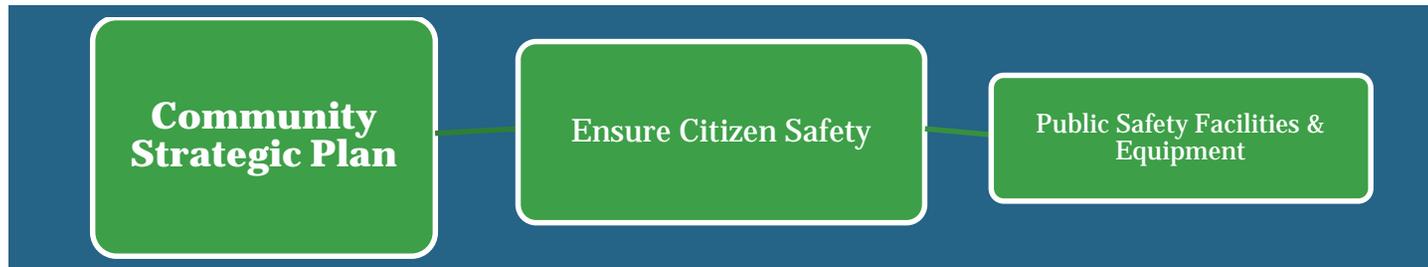
Any additional costs beyond the initial purchase of equipment will be covered by the Fire and Rescue Department. Those costs may include replacement of ballistic armor after 5 years and replacement of medical equipment.

Conformance with Plans, Policies, and Legal Obligations:

This project conforms with the County's Unified Hostile Incident Action Guide, last amended in 2016.

Project Highlights and Key Milestones:

- Unified Hostile Incident Action Guide developed in 2013 and amended in 2016 to include County and Town of Vinton public safety departments.
- Guide identifies the development of a Rescue Task Force Model to allow fire and rescue personnel to enter within a designated area to treat victims with law enforcement protection.
- Purchase of ballistic body armor, emergency medical equipment and communications devices are required to support the Rescue Task Force Model.





Fire Station Renovation / Replacement

Department: Fire and Rescue/General Services
Location: Countywide Fire and Rescue Stations
Magisterial District: Countywide

Category: New Facilities
Est. Useful Life: Varies
Project Status: Planned

Financial Summary

	Total Cost	Through FY 2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total FY 21 - FY 30
Total Project Cost	10,600,000	0	0	0	0	0	0	0	0	100,000	10,500,000	0	10,600,000
Funding Sources													
Lease/Revenue Bonds	10,500,000	0	0	0	0	0	0	0	0	0	10,500,000	0	10,500,000
Roanoke County - Unrestricted Cash	100,000	0	0	0	0	0	0	0	0	100,000	0	0	100,000
Total Funding Sources	10,600,000	0	0	0	0	0	0	0	0	100,000	10,500,000	0	10,600,000
Operating Impacts			0	0	0	0	0	0	0	0	0	TBD	TBD



Project Summary:

The Fire Station Renovation / Replacement project is planned to receive funding in FY 2028 (\$0.1 million) for planning and initial design and in FY 2029 (\$10.5 million) for construction to renovate and/or replace fire station facilities. Further evaluation will be necessary to identify which station(s) will need replacement or renovations. Roanoke County Fire and Rescue operates from 12 stations and a Regional Fire-EMS Training Center located in Roanoke County.



Fire Station Renovation / Replacement (continued)

Project Description and Justification:

The Fire Station Renovation / Replacement project is proposed to receive funding in FY 2028 (\$0.1 million) for planning and initial design and in FY 2029 (\$10.5 million) for construction to renovate and/or replace fire station facilities. Roanoke County Fire and Rescue operates from 12 stations and a Regional Fire-EMS Training Center located in Roanoke County.

Stations range in age with various facility needs, which will be evaluated closer to the planned funding years to determine which fire station(s) will be renovated and/or replaced.

Additional Operating Impacts:

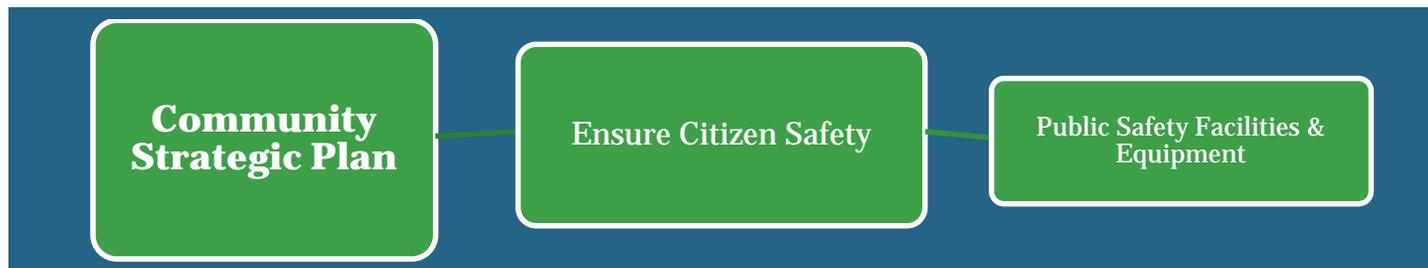
There is no anticipated additional operating impact with this project. Renovation or replacement of facilities may create operating savings.

Conformance with Plans, Policies, and Legal Obligations:

This project relates to the departmental goal of maintaining compliance with National Fire Protection Association (NFPA), specifically the NFPA 1500 standard, which specifies the minimum requirements for an occupational safety and health program for fire departments.

Project Highlights and Key Milestones:

- Roanoke County Fire and Rescue operates from 12 stations and a Regional Fire-EMS Training Center located in Roanoke County.
- Stations range in age with various facility needs, which will be evaluated closer to the planned funding years.
- Funding in FY 2028 (\$100,000) is planned for planning and initial design.
- Bond funding in FY 2029, \$10.5 million, is planned for construction to renovate and/or replace fire station facilities.





Courthouse Parking Lot Renovations

Department: General Services/Building Maintenance

Category: Replacement

Location: 305 East Main Street, Salem, VA 24153

Est. Useful Life: 25 Years

Magisterial District: City of Salem

Project Status: New

Financial Summary

	Total Cost	Through FY 2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total FY 21 - FY 30
Total Project Cost	106,839	0	0	106,839	0	0	0	0	0	0	0	0	106,839
Funding Sources													
Roanoke County - Unrestricted Cash	106,839	0	0	106,839	0	0	0	0	0	0	0	0	106,839
Total Funding Sources	106,839	0	0	106,839	0	0	0	0	0	0	0	0	106,839
Operating Impacts			0	0	TBD								



Project Summary:

The Courthouse Parking Lot Renovations project is planned to address ongoing issues with funding planned in FY 2022. The Roanoke County Courthouse parking lot has exceeded its useful life, and the degradation of the asphalt has resulted in increasing subsurface structural issues. This project will include civil engineering design and project construction to replace the lot surface and to provide necessary subsurface/base repairs to ensure the long-term utilization of the lot. The Courthouse parking lot was identified as a deficiency in the 2019 Facilities Condition Assessment.



Courthouse Parking Lot Renovations (continued)

Project Description and Justification:

The Courthouse Parking Lot Renovations project is planned to address ongoing issues with funding planned in FY 2022. The project will address the subsurface and pavement needs for the Courthouse lot areas. Continued deferral of the project will result in increased overall project scope related costs due to the subsurface degradation resulting from failed asphalt. In addition to cost impacts, the condition of the lot represents an overall safety issue for the facility.

The Courthouse parking lot was identified as a deficiency in the 2019 Facilities Condition Assessment and an associated cost estimate was provided.

Additional Operating Impacts:

There are no additional operational cost impacts for this project.

Conformance with Plans, Policies, and Legal Obligations:

Providing a safe and functional parking lot is necessary for the efficient operation of the Courthouse facility. The Courthouse parking lot was identified as a deficiency in the 2019 Facilities Condition Assessment.

Project Highlights and Key Milestones:

- The lot condition has continued to degrade. Repairs have increased and provide only temporary and localized improvement.
- Project is planned for FY 2022 with \$106,839 in funding.
- Project identified as a deficiency in the 2019 Facilities Condition Assessment.

**Organizational
Strategic Plan**

Ensure Citizen Safety

Public Safety Facilities &
Equipment



Courthouse HVAC Replacement

Department: General Services/Building Maintenance

Category: Replacement

Location: 305 East Main Street, Salem, VA 24153

Est. Useful Life: 20-25 Years

Magisterial District: City of Salem

Project Status: New

Financial Summary

	Total Cost	Through FY 2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total FY 21 - FY 30
Total Project Cost	537,000	0	0	25,000	512,000	0	0	0	0	0	0	0	537,000
Funding Sources													
Lease/Revenue Bonds	512,000	0	0	0	512,000	0	0	0	0	0	0	0	512,000
Roanoke County - Unrestricted Cash	25,000	0	0	25,000	0	0	0	0	0	0	0	0	25,000
Total Funding Sources	537,000	0	0	25,000	512,000	0	0	0	0	0	0	0	537,000
Operating Impacts			0	0	0	TBD							



Project Summary:

The Courthouse HVAC Replacement project is planned to replace major HVAC components that are original to the building, which have exceeded the end of their useful life. This project will incorporate due diligence planned for FY 2022 to perform initial engineering analysis to identify the best type of replacement components to replace the current obsolete system. Detailed design and replacement is planned for FY 2023. The 2019 Facilities Condition Assessment identified the needs proposed in this project as deficiencies with equipment that is well past service life expectancy.



Courthouse HVAC Replacement (continued)

Project Description and Justification:

The Courthouse HVAC Replacement project is planned to replace major HVAC components that are original to the building, which have exceeded the end of their useful life. Heating for the Courthouse is provided by two firetube steam boilers. These boilers are original to the facility, which was completed in 1982. They have exceeded their life expectancy by over 7 years. In addition, recurring maintenance and obsolescence issues are increasing. The Courthouse cooling is provided by two 100 ton reciprocating water cooled liquid chillers and cooling tower that are also original to the facility.

This project will incorporate due diligence planned for FY 2022 to perform initial engineering analysis to identify the best type of replacement components to replace the current obsolete system. Detailed design and replacement is planned for FY 2023.

Additional Operating Impacts:

Recurring energy utilization should decrease with the engineered replacement of these systems. The estimated total impact is undetermined at this time pending initial engineering work and the fluctuations in energy unit costs.

Conformance with Plans, Policies, and Legal Obligations:

Heating, cooling and ventilation for the Courthouse is necessary for the continuity of operations for a significant facility. The 2019 Facilities Condition Assessment identified the needs proposed in this project as deficiencies with equipment that is well past service life expectancy.

Project Highlights and Key Milestones:

- Recurring operational, functional, and obsolescence issues.
- Staff submitted CIP requests in both FY 2019 and FY 2020 for replacement of the chillers and cooling tower.
- The 2019 Facilities Condition Assessment indicates that these are deficiencies to be addressed.

Organizational Strategic Plan

Ensure Citizen Safety

Public Safety Facilities & Equipment



Courthouse and Court Services Carpet Replacement

Department: General Services/Building Maintenance

Category: Replacement

Location: Multiple

Est. Useful Life: 15 Years

Magisterial District: City of Salem

Project Status: New

Financial Summary

	Total Cost	Through FY 2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	Total FY 21 - FY 30
Total Project Cost	466,000	0	0	0	466,000	0	0	0	0	0	0	0	466,000
Funding Sources													
Lease/Revenue Bonds	466,000	0	0	0	466,000	0	0	0	0	0	0	0	466,000
Total Funding Sources	466,000	0	0	0	466,000	0	0	0	0	0	0	0	466,000
Operating Impacts			0	0	0	0	0	0	0	0	0	0	0



Project Summary:

The Courthouse and Court Services Carpet Replacement project will replace approximately 44,000 square feet of the carpeting for the Courthouse and 12,000 square feet of carpeting in the Court Services annex facility. The exact date of placement is unknown but carpeting at both locations have significantly exceeded their useful life and are categorized as deficiencies by the 2019 Facilities Condition Assessment.



Courthouse and Court Services Carpet Replacement (continued)

Project Description and Justification:

The Courthouse is a major County facility that is heavily used by the building occupants and public. The carpet on each floor is significantly worn and stained. Based on the comparative criticality as compared to other identified deficiencies, the 2019 Facilities Condition Assessment develops a maintenance action plan that is spread out over a five-year period.

While in need of current replacement, the project is planned for funding in FY 2023. The Courthouse and Court Services Carpet Replacement project will replace approximately 44,000 square feet of the carpeting for the Courthouse and 12,000 square feet of carpeting in the Court Services annex facility. The carpet will be replaced with a commercial grade nylon carpet. Carpet squares are the preferred product type.

Additional Operating Impacts:

There are no additional operational cost impacts for this project.

Conformance with Plans, Policies, and Legal Obligations:

The 2019 Facilities Condition Assessment categorizes this as a current deficiency.

Project Highlights and Key Milestones:

- The majority of the carpeted area in the Courthouse and Court Services buildings has well exceeded useful life and is worn and stained.
- The 2019 Facilities Condition Assessment includes these areas as deficiencies in need of replacement and predicts failure beyond just worn carpet within 3 years for sections.

Organizational Strategic Plan

Ensure Citizen Safety

Public Safety Facilities & Equipment

