Oakland County
Department of Information Technology
Project Scope and Approach

Project Name: Building Safety Security Camera Replacement   **Project ID: D52110SC**

Leadership Group: Finance/Admin	
Department: Emergency Management	**Division:** Homeland Security/Emergency Management
Project Sponsor: Thom Hardesty	**Date Requested:** 3/7/22 **PM Customer No.** 110
Request Type: *New Development*	
IT Team Name: Public and Environmental Services	**IT Team No:** 5
Project Manager/Leader: Stu Smith	

Account Number:	95011	**Account Description:**	Emergency Management	**Customer Name:**	Emergency Management
Grant Funded?	**Yes**	**No XX**	**Mandate? Yes No XX**		
			Mandate Source:		

Project Goal

To implement a new building security camera system so that there is improved system stability, additional redundancy, and a better user experience.

Business Objective

The main business objective of the Building Safety Security Camera Replacement Project is to review the existing system, establish required needs and retention, and solution a replacement camera option that will meet the needs of the increased security concerns of the county.

Major Deliverables
- Detailed Project Plan
- Implementation Plan
- Application and/or System Requirements
- Technical Architecture Diagram(s)
- User Acceptance Test Plan
- Disaster Recovery Toolkit
- Service Level Agreement
- Service Center Knowledge Documents
- Training/User Manuals

Approach
- Develop Detailed Project Plan
- Document system requirements
- Determine and document system architecture and diagram
- Develop and distribute RFP to potential vendors
- Conduct vendor demos and complete vendor selection via RFP Scoring Matrix
- Conduct contract negotiations with selected vendor
- Assess User Hardware and Software Requirements

- Conduct Tech Review
- Order hardware and software if needed
- Develop Implementation Plan
- Develop new system
- Develop User Acceptance Test Plan
- Test new system
- Acquire User Acceptance Sign off
- Conduct Change Control
- Develop User Documentation, SLA, Disaster Recovery Toolkit, Service Center Knowledge Documents
- Train users on new system
- Release new system into production

Research & Analysis

Research Recommendation

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users	25+
Divisions	Homeland Security/Emergency Management
Leadership Groups	Finance/Admin

Risk

Business Environment   Medium – Project will require some changes to existing business processes.

Technical Environment   Medium – Previously implemented technologies with new aspects and/or new requirements.

Project Name: Building Safety Security Camera Replacement   **Project ID: D52110SC**

Assumptions

Staffing   IT Staffing: resources will be available for the hours indicated per the attached project plan.

Other Staffing: additional staffing will be available as follows:

Role:	Name	Hours per Day
Sponsor	Thomas Hardesty	As Needed
Business Lead	Rob Seeley	As Needed
Subject Matter Expert	Tracey McGee	As Needed

Facilities

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Technical

• Interaction between OCIT Network/Telecom Teams and Homeland Security.

Funding

• Information Technology/Grants

Other

Priority   TBD

Constraints

Exclusions

Oakland County
Department of Information Technology
Project Scope and Approach

Project Name: Building Safety Security Camera Replacement   **Project ID: D52110SC**

PROJECT PHASE AUTHORIZATION

Phase(s): All		
Total Estimated Application Services	**Hours: 1,856**	
Total Estimated Technical Systems	**Hours: 1,507**	
Total Estimated CLEMIS	**Hours:**	
Total Estimated Internal Services	**Hours:**	
IT Application Services Division Manager Approval:		**Date:**
IT Technical Systems Division Manager Approval:		**Date:**
IT CLEMIS Division Manager Approval:		**Date:**
IT Internal Services Division Manager Approval:		**Date:**
IT Management Approval:		
Approved: Yes No		Date:
Reason:		
Project Sponsor Approval:		
Title:		Date:

PROJECT SUMMARY

Authorized Development (see above)	**Hours: 3,363**	
Preliminary Estimated Development for Future Phases	**Hours:**	
Grand Total Estimated Development	**Hours: 3,363**	**Cost: $554,895**

Project Name: Building Safety Security Camera Replacement   **Project ID: D52110SC**

PROJECT COMPLETION AUTHORIZATION

Customer Acceptance of Product:	
Title:	Date:
Project Office Review:	Date:

Building Safety Security Camera Replacement Project - Size Estimate (+/- 10% to 50%)

	Type	ID	Task Name	Estimated Hours	Estimate Notes
1	Phase	000000	⊟ PROJECT MANAGEMENT	716	
2	Phase	200000	⊟ DEFINE BUSINESS REQUIREMENTS	704	
3	Phase	300000	⊟ DESIGN SYSTEM ARCHITECTURE	275	
4	Phase	500000	⊟ DEVELOP APPLICATION	1,223	
5	Phase	600000	⊟ IMPLEMENTATION PHASE	358	
6	Phase	800000	⊟ POST IMPLEMENTATION SUPPORT	87	
7					
1				3,363	

Oakland County -- Building Safety Security Camera Replacement
Return on Investment Analysis

Project Summary

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Benefits/Savings:							
Tangible Benefits Subtotal:	0	0	0	0	0	0	0
Cost Avoidance Subtotal:	31,200	31,200	31,200	31,200	31,200	31,200	187,200
Costs:							
Development Services Subtotal:	554,895	40,194	40,797	41,409	42,030	42,660	761,985
Hardware Subtotal:	777,500	0	0	0	0	0	777,500
Software Subtotal:	0	0	0	0	0	0	0
Infrastructure Subtotal	609,931	25,735	26,121	26,513	26,911	530,046	1,245,258
Training Subtotal:	0	0	0	0	0	0	0
Other Subtotal:	0	0	0	0	0	0	0
Annual Statistics:							
Annual Total Savings	31,200	31,200	31,200	31,200	31,200	31,200	187,200
Annual Total Costs	1,942,326	65,929	66,918	67,922	68,941	572,707	2,784,743
Annual Return on Investment	(1,911,126)	(34,729)	(35,718)	(36,722)	(37,741)	(541,507)	(2,597,543)
Annual Costs/Savings Ratio	6225.40%	211.31%	214.48%	217.70%	220.96%	1835.60%	
Project Cumulative Statistics:							
Cumulative Total Savings	31,200	62,400	93,600	124,800	156,000	187,200	187,200
Cumulative Total Costs	1,942,326	2,008,255	2,075,174	2,143,096	2,212,036	2,784,743	2,784,743
Cumulative Return on Investment	(1,911,126)	(1,945,855)	(1,981,574)	(2,018,296)	(2,056,036)	(2,597,543)	(2,597,543)
Cumulative Cost/Savings Ratio	6225.40%	3218.36%	2217.07%	1717.22%	1417.97%	1487.58%	1487.58%
Year Positive Payback Achieved							NO PAYBACK
State or Federal Mandate?							
Signatures:							
Benefits Reviewed By Project Sponsor				Date:			
Costs (including IT Resources) Reviewed By Information Technology Project Manager				Date:			

Oakland County -- Building Safety Security Camera Replacement

Return on Investment Analysis

Savings Detail

Benefit/Savings Description	Project Savings Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Savings	Annual Multiplier
Elimination of one year of repair technician to repair/troubleshoot incidents and downtime related to outdated system.	Cost Avoidance		ANN	1,040	30	31,200	1.000
Improved confidence in the data gathered.	Intangible Benefit					0	
Ability to provide cogent video clips to needed entities that can be used in legal situations and submitted to state agencies.	Intangible Benefit					0	
						0	
						0	
						0	
						0	
						0	

Oakland County -- Building Safety Security Camera Replacement

Return on Investment Analysis

Savings Detail

Benefit/Savings Description	Project Savings Category	Affects Project ROI?						Potential Savings Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6	Y1	Y2	Y3	Y4	Y5	Y6
Elimination of one year of repair technician to repair/troubleshoot incidents and downtime related to outdated system.	Cost Avoidance	x	x	x	x	x	x	31,200.00	31,200.00	31,200.00	31,200.00	31,200.00	31,200.00
Improved confidence in the data gathered.	Intangible Benefit												
Ability to provide cogent video clips to needed entities that can be used in legal situations and submitted to state agencies.	Intangible Benefit												

Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Tangible Benefit:							
Tangible Benefits Subtotal:							
Cost Avoidance:							
Elimination of one year of repair technician to repair/troubleshoot incidents and downtime related to outdated system.	31,200	31,200	31,200	31,200	31,200	31,200	187,200
Cost Avoidance Subtotal:	*31,200*	*31,200*	*31,200*	*31,200*	*31,200*	*31,200*	*187,200*
Intangible Benefit:							
Improved confidence in the data gathered.							
Ability to provide cogent video clips to needed entities that can be used in legal situations and submitted to state agencies.							
Savings Total:	*31,200*	*31,200*	*31,200*	*31,200*	*31,200*	*31,200*	*187,200*

Oakland County -- Building Safety Security Camera Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI?					
								Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development	Development Svcs		HR	3,363	165	554,895		x					
IT Hours - System Maintenance	Development Svcs		HR	40	165	6,600	1.015		x	x	x	x	x
IT Hours - Customer Support	Development Svcs		HR	100	165	16,500	1.015		x	x	x	x	x
IT Hours - Planned Maintenance	Development Svcs		HR	100	165	16,500	1.015		x	x	x	x	x
User Hours - New Development	Development Svcs					0							
User Hours - PTNE/OT	Development Svcs					0							
Contractor Professional Services	Development Svcs					0							
PC System - Acquisition	Hardware				814	0							
PC System - Maintenance	Hardware				2,304	0							
Skyware 1.8 Meter Dish	Hardware				4,659	0							
10 Watt Power Inserter	Hardware				475	0							
Notebook - Acquisition	Hardware				1,223	0							
Notebook - Maintenance	Hardware				2,372	0							
Tablet Notebook - Acquisition	Hardware				2,012	0							
Tablet Notebook - Maintenance	Hardware					0							
Laserprinter - Acquisition	Hardware				1,432	0							
Laserprinter - Maintenance	Hardware				1,104	0							
Image Workstations - Acquisition	Hardware					0							
Image Workstations - Maintenance	Hardware				3,496	0							
PC Maintenance User Owned	Hardware				2,304	0							
Printer Maintenance User Owned	Hardware				1,072	0							
File Space (100GB)	Hardware		ANN		173	0							
Internet Bandwidth per MB	Hardware		ANN		750	0							
Package Software - Acquisition	Software					0							
Package Software - Maintenance	Software				240	0							
Business Objects Access	Software					0							
Term Emulation SFTW-Acquisition	Software					0							
Term Emulation SFTW-Maintenance	Software					0							
Server - Acquisition/Upgrade	Infrastructure		EA		8,000	0							
Server - Maintenance	Infrastructure		EA	21	360	7,560	1.015		x	x	x	x	x
Server Sftwre - Acquisition/Upgrade	Infrastructure				335	0							
Server Sftwre - Maintenance	Infrastructure					0							
Server Rack Mount	Infrastructure				400	0							
Oracle Enterprise Per Processor - Includes Year 1 Maintenance	Infrastructure				21,372	0							
Oracle Enterprise Per Processor - Year 2 and Beyond	Infrastructure				3,432	0							

Oakland County -- Building Safety Security Camera Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI?					
								Y1	Y2	Y3	Y4	Y5	Y6
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure				24,533	0							
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure				20,759	0							
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure				16,985	0							
SQL Server Enterprise - Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure			21	4,218	88,578		x					
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure				6,398	0							
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure				5,414	0							
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure				4,429	0							
SQL Server - Standard Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure				1,100	0							
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				3,506	0							
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				701	0							
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure				13,180	0							

Oakland County -- Building Safety Security Camera Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Y1	Y2	Y3	Y4	Y5	Y6
								**Affects Project ROI?**					
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				2,635	0							
SSL Certificate	Infrastructure		EA	1	845	845	1.015	x	x	x	x	x	x
Internet Access	Infrastructure		EA	1	180	180	1.015	x	x	x	x	x	x
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure		ANN	2	415	830		x					x
Database (5 GB) on Consolidated SQL Instance Server	Infrastructure		ANN		930	0							
Database Instance (125 GB DB) on Consolidated SQL Server	Infrastructure		ANN		2,395	0							
Database SQL Maint Server	Infrastructure		ANN		834	0							
Database SQL Server Physical	Infrastructure		ANN	2	19,158	38,316		x					x
DB Maintenance (Annual Cycle $610)	Infrastructure		ANN	2	610	1,220	1.015		x	x	x	x	
DB Maintenance (Semi-Annual Cycle $1220)	Infrastructure		ANN		1,220	0							
DB Maintenance (Semi-Annual Cycle $2440)	Infrastructure		ANN		2,440	0							
Dedicated Virtual Server	Infrastructure		ANN	21	4,150	87,150		x					x
DB Instance Setup	Infrastructure				976	0							
DBA MS SQL Database Creation on Exisitng Instance	Infrastructure		EA	2	366	732		x					
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $601 On Premise Physical Server = N/A	Infrastructure		ANN			0							
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $951 On Premise Physical Server = $9,288	Infrastructure		ANN			0							
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $1,702 On Premise Physical Server = $9,751	Infrastructure		ANN			0							
Large - 16 Core 64GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $3,167 On Premise Physical Server = $10,446	Infrastructure		ANN			0							

Oakland County -- Building Safety Security Camera Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Budget Category/Funding Source	Unit Desc	Units	Rate per Unit	Total Cost	Annual Multiplier	Affects Project ROI?					
								Y1	Y2	Y3	Y4	Y5	Y6
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $7,564 On Premise Physical Server = $12,906	Infrastructure		ANN			0							
Project Staff Training	Training					0							
Building Security Cameras	Hardware		EA	1,555	500	777,500		x					
SAN Storage	Infrastructure		ANN	1	300,000	300,000		x					x
Infrastructure Monitoring Solution	Infrastructure		ANN	1	77,750	77,750		x					x
Inf Monitoring Solution Maint	Infrastructure		ANN	1	15,550	15,550	1.015	x	x	x	x	x	x

Oakland County -- Building Safety Security Camera Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
IT Hours - New Development	Development Svcs	554,895.00					
IT Hours - System Maintenance	Development Svcs		6,699.00	6,799.49	6,901.48	7,005.00	7,110.07
IT Hours - Customer Support	Development Svcs		16,747.50	16,998.71	17,253.69	17,512.50	17,775.19
IT Hours - Planned Maintenance	Development Svcs		16,747.50	16,998.71	17,253.69	17,512.50	17,775.19
User Hours - New Development	Development Svcs						
User Hours - PTNE/OT	Development Svcs						
Contractor Professional Services	Development Svcs						
PC System - Acquisition	Hardware						
PC System - Maintenance	Hardware						
Skyware 1.8 Meter Dish	Hardware						
10 Watt Power Inserter	Hardware						
Notebook - Acquisition	Hardware						
Notebook - Maintenance	Hardware						
Tablet Notebook - Acquisition	Hardware						
Tablet Notebook - Maintenance	Hardware						
Laserprinter - Acquisition	Hardware						
Laserprinter - Maintenance	Hardware						
Image Workstations - Acquisition	Hardware						
Image Workstations - Maintenance	Hardware						
PC Maintenance User Owned	Hardware						
Printer Maintenance User Owned	Hardware						
File Space (100GB)	Hardware						
Internet Bandwidth per MB	Hardware						
Package Software - Acquisition	Software						
Package Software - Maintenance	Software						
Business Objects Access	Software						
Term Emulation SFTW-Acquisition	Software						
Term Emulation SFTW-Maintenance	Software						
Server - Acquisition/Upgrade	Infrastructure						
Server - Maintenance	Infrastructure		7,673.40	7,788.50	7,905.33	8,023.91	8,144.27
Server Sftwre - Acquisition/Upgrade	Infrastructure						
Server Sftwre - Maintenance	Infrastructure						
Server Rack Mount	Infrastructure						
Oracle Enterprise Per Processor - Includes Year 1 Maintenance	Infrastructure						
Oracle Enterprise Per Processor - Year 2 and Beyond	Infrastructure						

Oakland County -- Building Safety Security Camera Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Enterprise - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Enterprise - Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure	88,578.00					
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2016-Aug 2017 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2017-Aug 2018 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server Standard - Per Processor (4 cores) - Purchased Sept 2018-Aug 2019 - Includes Maintenance thru Aug 2019	Infrastructure						
SQL Server - Standard Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	Infrastructure						
Websphere Basic Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure						
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure						
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure						

Oakland County -- Building Safety Security Camera Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure						
SSL Certificate	Infrastructure	845.00	857.68	870.54	883.60	896.85	910.30
Internet Access	Infrastructure	180.00	182.70	185.44	188.22	191.05	193.91
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure	830.00					830.00
Database (5 GB) on Consolidated SQL Instance Server	Infrastructure						
Database Instance (125 GB DB) on Consolidated SQL Server	Infrastructure						
Database SQL Maint Server	Infrastructure						
Database SQL Server Physical	Infrastructure	38,316.00					38,316.00
DB Maintenance (Annual Cycle $610)	Infrastructure		1,238.30	1,256.87	1,275.73	1,294.86	
DB Maintenance (Semi-Annual Cycle $1220)	Infrastructure						
DB Maintenance (Semi-Annual Cycle $2440)	Infrastructure						
Dedicated Virtual Server	Infrastructure	87,150.00					87,150.00
DB Instance Setup	Infrastructure						
DBA MS SQL Database Creation on Exisitng Instance	Infrastructure	732.00					
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $601 On Premise Physical Server = N/A	Infrastructure						
Small - 4 Core 16GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $951 On Premise Physical Server = $9,288	Infrastructure						
Medium - 8 Core 32GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $1,702 On Premise Physical Server = $9,751	Infrastructure						
Large - 16 Core 64GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $3,167 On Premise Physical Server = $10,446	Infrastructure						

Oakland County -- Building Safety Security Camera Replacement

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $7,564 On Premise Physical Server = $12,906	Infrastructure						
Project Staff Training	Training						
Building Security Cameras	Hardware	777,500.00					
SAN Storage	Infrastructure	300,000.00					300,000.00
Infrastructure Monitoring Solution	Infrastructure	77,750.00					77,750.00
Inf Monitoring Solution Maint	Infrastructure	15,550.00	15,783.25	16,020.00	16,260.30	16,504.20	16,751.77

Oakland County -- Building Safety Security Camera Replacement

Return on Investment Analysis

Cost Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Development Services:							
IT Hours - New Development	554,895						554,895
IT Hours - System Maintenance		6,699	6,799	6,901	7,005	7,110	34,515
IT Hours - Customer Support		16,748	16,999	17,254	17,512	17,775	86,288
IT Hours - Planned Maintenance		16,748	16,999	17,254	17,512	17,775	86,288
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
Development Services Subtotal:	*554,895*	*40,194*	*40,797*	*41,409*	*42,030*	*42,660*	*761,985*
Hardware:							
Building Security Cameras	777,500						777,500
Hardware Subtotal:	*777,500*						*777,500*
Software:							
Software Subtotal:							
Infrastructure:							
Dedicated Virtual Server	87,150					87,150	174,300
Server - Maintenance		7,673	7,789	7,905	8,024	8,144	39,535
SQL Server Enterprise - Maintenance, Per Processor (4 cores) - Sept 2019 and Beyond	88,578						88,578
SSL Certificate	845	858	871	884	897	910	5,264
Internet Access	180	183	185	188	191	194	1,121
App Code Directories on Consolidated IIS Server (Virtual)	830					830	1,660
Database SQL Server Physical	38,316					38,316	76,632
DB Maintenance (Annual Cycle $610)		1,238	1,257	1,276	1,295		5,066
DBA MS SQL Database Creation on Exisitng Instance	732						732
SAN Storage	300,000					300,000	600,000
Infrastructure Monitoring Solution	77,750					77,750	155,500
Inf Monitoring Solution Maint	15,550	15,783	16,020	16,260	16,504	16,752	96,870
Infrastructure Subtotal	*609,931*	*25,735*	*26,121*	*26,513*	*26,911*	*530,046*	*1,245,258*
Training:							
Training Subtotal:							
Other:							
Other Subtotal:							
Costs Total:	**1,942,326**	**65,929**	**66,918**	**67,922**	**68,941**	**572,707**	**2,784,743**

Oakland County -- Building Safety Security Camera Replacement
Return on Investment Analysis

Assumptions

Date	Assumption Description
28-May-22	Savings based on $30/hr and 20 hr/wk to support
28-May-22	All 1,555 cameras need replaced.
28-May-22	Possible firewall need
28-May-22	Central patch management
28-May-22	Remote access/remote management solution
28-May-22	Central monitoring solution needed
28-May-22	Camera administration solution needed
28-May-22	NVR Storage solution
08-Jun-22	Support estimates assume Homeland Security will maintain & monitor the cameras and IT will maintain and monitor the network and server infrastructure.