Oakland County
Department of Information Technology
Project Scope and Approach

Project Name: Microfilm Transition **Project ID: D91216MF**

Leadership Group: Land					
Department: Register of Deeds/Treasury			**Division: Clerk/ROD - Micrographics**		
Project Sponsor: Jennifer Conte/Jody DeFoe		**Date Requested: 03/01/2020**		**PM Customer No.**	
Request Type: X *New Development* *Enhancement* *Customer Support* *Planned System Maintenance or Upgrade*					
IT Team Name: Assessing & Taxation			**IT Team No: 9**		
Project Manager/Leader: Addie Hankins					
Account Number:	**91000**	**Account Description:**	ROD/Treasury Land	**Customer Name: ROD/Treasury Land**	
Grant Funded? Yes	**No**		**Mandate?**	**Yes**	**No**
			Mandate Source:		

Project Goal

To determine feasibility and implement a solution to improve and consolidate microform management so that records can be stored and maintained in an appropriate format that allows for compliance with document retention requirements.

Register of Deeds - The goal is to upgrade the hardware and/or software within the micrographics department in order to provide a more modern format of digital conversion services to various departments.

Treasury – To convert historic microform (e.g. microfilm, microfiche, etc.) records to a digital format so that it will allow ease of use to county departments and general public, retire aging microfilm readers, and convert paper to digital format to eliminate paper documents stored in boxes.

Business Objective

Microfilm has been used for decades as a compact means of storing current documents for various departments:

- Treasurer's office: tax rolls, delinquent tax rolls and special assessment rolls which are required to be stored for decades under the record retention requirements of the State of Michigan'
- Clerk's office: Affidavit's; Adoptions, Medical Examiner offices.

Unfortunately, the microfilm readers haven't held up as well as the microfilm has. It is difficult to find a working machine or a company able to repair them or offer a maintenance contract. Without working readers, we are not in compliance with the law.

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Major Deliverables

- Feasibility Study to determine possible solutions
- Meet with vendors to discuss possible solutions to determine if RFP is needed
- Create and Release RFP
- Working with Laserfiche to set up workflow process
- Detailed Project Plan
- Application and/or System Requirements
- End User Hardware and Software Requirements Document
- Technical Design Document
- Technical Architecture Diagram
- Training Plan
- User Acceptance Test Plan
- Implementation Plan
- Training/User Manual(s)
- Service Center Knowledge Documents

Approach

- Develop Detailed Project Plan
- Review current business process and conduct needs assessment with customer, ensuring current manual processes are refined and automated.
- Document system requirements
- Determine and document system architecture and diagram
- Assess User Hardware, conversion Software Requirements, and Laserfiche workflow requirements
- Conduct Tech Review
- Order hardware and conversion software
- 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

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Research & Analysis

Gartner Research Recommendation:

Paper Documents to Digital Conversion Services

- Determine volume of documents, types of documents, and retention requirements when determining outsourcing vs. keeping in house.
- Outsourcing is recommended for high volumes of documents, and if there are no security concerns. Imaging infrastructure consisting of high-volume scanners, scan stations and imaging software requires significant investment.
- Outsourcing doesn't make sense in all circumstances, so keeping document imaging in-house is sometimes the best answer. **If equipment will be needed for future projects, then purchasing equipment might be a better option.**
- Consider outsourcing as a viable alternative when you need to scan old paper files and convert them to electronic form. With this type of conversion, outsourcing typically costs less than doing it in-house.

Microfilm to Digital Conversion

- No information found in the research

Benefits

See Return on Investment (ROI) Analysis Document

Impact

Number of Users Public

Divisions Register of Deeds – Micrographics & Treasurer's Office

Leadership Groups Land

Risk

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

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

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
Project Sponsor:	Jennifer Conte/Jody Defoe	As Needed

Facilities

- N/A

Technical

- The hardware/software to perform the conversions will integrate with Laserfiche.

Funding

- IT will purchase the hardware and bill back to the customer
- The Micrographics department will fund this project by providing microform conversion services to various departments.

Other

- None

Priority

- TBD

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Constraints

- Storage will not be needed for this project.

Exclusions

- The ROD/Micrographics department will not store any digital documents for other departments.

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Project Name: Microfilm Transition **Project ID: D91216MF**

PROJECT PHASE AUTHORIZATION

Phase(s): All		
Total Estimated Application Services	**Hours:** 714	
Total Estimated Technical Systems	**Hours:** 76	
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:**		
Preliminary Estimated Development for Future Phases	**Hours:**		
Grand Total Estimated Development	**Hours:**	**790**	**Cost:** 130,350

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PROJECT COMPLETION AUTHORIZATION

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

Microfilm Transition - Size Estimate (+/- 10% to 50%)

	Type	ID	Task Name	Estimated Hours
3	3	000000	PROJECT MANAGEMENT	250
4	Phase	100000	DEVELOP RFP & SELECT VENDOR	282
5	Phase	200000	DEFINE BUSINESS REQUIREMENTS	53
6	Phase	300000	DESIGN SYSTEM ARCHITECTURE	73
7	Phase	400000	IMPLEMENT VENDOR APPLICATION	71
8	Phase	500000	IMPLEMENTATION PHASE	48
9	Phase	600000	POST IMPLEMENTATION SUPPORT	13
10				790

D91216MF

Oakland County -- Microfilm Transition

Return on Investment Analysis

Date: 07/10/2020

Project Summary

Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Benefits/Savings:							
Tangible Benefits Subtotal:	99,890	100,889	101,898	102,917	103,946	104,985	614,525
Cost Avoidance Subtotal:	17,265	17,438	17,612	17,788	17,966	18,146	106,215
Costs:							
Development Services Subtotal:	130,350	4,950	4,950	4,950	4,950	4,950	155,100
Hardware Subtotal:	158,198	13,998	13,998	13,998	13,998	13,998	228,188
Software Subtotal:	0	0	0	0	0	0	0
Infrastructure Subtotal	0	0	0	0	0	0	0
Training Subtotal:	0	0	0	0	0	0	0
Other Subtotal:	0	0	0	0	0	0	0
Annual Statistics:							
Annual Total Savings	117,155	118,327	119,510	120,705	121,912	123,131	720,739
Annual Total Costs	288,548	18,948	18,948	18,948	18,948	18,948	383,288
Annual Return on Investment	(171,393)	99,379	100,562	101,757	102,964	104,183	337,451
Annual Costs/Savings Ratio	246.30%	16.01%	15.85%	15.70%	15.54%	15.39%	
Project Cumulative Statistics:							
Cumulative Total Savings	117,155	235,482	354,991	475,696	597,608	720,739	720,739
Cumulative Total Costs	288,548	307,496	326,444	345,392	364,340	383,288	383,288
Cumulative Return on Investment	(171,393)	(72,014)	28,547	130,304	233,268	337,451	337,451
Cumulative Cost/Savings Ratio	246.30%	130.58%	91.96%	72.61%	60.97%	53.18%	53.18%
Year Positive Payback Achieved			Year 3				Year 3
State or Federal Mandate?							
Signatures:							
Benefits Reviewed By Project Sponsor	_____			Date:	_____		
Costs (including IT Resources) Reviewed By Information Technology Project Manager	_____			Date:	_____		

REV: May 21, 2018

Oakland County -- Microfilm Transition

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
ROD - Film Retrieval	Cost Avoidance		HR	520	22	11,440	1.010
Treasurer - will save staff costs by converting the microfilm documents to a digital format.	Cost Avoidance		ANN	1	5,760	5,760	1.010
ROD - Paul G Warne Contract is maintenance on 2 of the existing microfilm machines.	Tangible Benefit		ANN	1	4,300	4,300	1.010
ROD - Praxair Contract - maintenance contract for the film feeder. Converts document to film.	Tangible Benefit		ANN	1	600	600	1.010
ROD - Allan Brenner Supply Contract - contract for supplies including film, film reels, development supplies, and printer toner kits	Tangible Benefit		ANN	1	30,000	30,000	1.010
ROD - Graphic Sciences Contract - maintenance on 2 of the Minolta machines	Tangible Benefit		ANN	1	29,045	29,045	1.010
ROD - Printer Makers Service Contract	Tangible Benefit		ANN	1	35,945	35,945	1.010
Treasurer - Print Supplies	Cost Avoidance		ANN	1	65	65	1.010
Ease of Access	Intangible Benefit					0	1.010
Employee Health and Safety	Intangible Benefit					0	1.010
Film has shelf life	Intangible Benefit					0	1.010
Film can be corrupted	Intangible Benefit					0	1.010
Providing services in the digital age	Intangible Benefit					0	1.010
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	
						0	

Oakland County -- Microfilm Transition

Return on Investment Analysis

Savings Detail

Benefit/Savings Description	Project Savings Category	Affects Project ROI? Y1	Y2	Y3	Y4	Y5	Y6	Potential Savings Extensions Y1	Y2	Y3	Y4	Y5	Y6
ROD - Film Retrieval	Cost Avoidance	X	X	X	X	X	X	11,440.00	11,554.40	11,669.94	11,786.64	11,904.51	12,024
Treasurer - will save staff costs by converting the microfilm documents to a digital format.	Cost Avoidance	X	X	X	X	X	X	5,760.00	5,817.60	5,875.78	5,934.53	5,993.88	6,054
ROD - Paul G Warne Contract is maintenance on 2 of the existing microfilm machines.	Tangible Benefit	X	X	X	X	X	X	4,300.00	4,343.00	4,386.43	4,430.29	4,474.60	4,519
ROD - Praxair Contract - maintenance contract for the film feeder. Converts document to film.	Tangible Benefit	X	X	X	X	X	X	600.00	606.00	612.06	618.18	624.36	631
ROD - Allan Brenner Supply Contract - contract for supplies including film, film reels, development supplies, and printer toner kits	Tangible Benefit	X	X	X	X	X	X	30,000.00	30,300.00	30,603.00	30,909.03	31,218.12	31,530
ROD - Graphic Sciences Contract - maintenance on 2 of the Minolta machines	Tangible Benefit	X	X	X	X	X	X	29,045.00	29,335.45	29,628.80	29,925.09	30,224.34	30,527
ROD - Printer Makers Service Contract	Tangible Benefit	X	X	X	X	X	X	35,945.00	36,304.45	36,667.49	37,034.17	37,404.51	37,779
Treasurer - Print Supplies	Cost Avoidance	X	X	X	X	X	X	65.00	65.65	66.31	66.97	67.64	68
Ease of Access	Intangible Benefit												
Employee Health and Safety	Intangible Benefit												
Film has shelf life	Intangible Benefit												
Film can be corrupted	Intangible Benefit												
Providing services in the digital age	Intangible Benefit												

Oakland County -- Microfilm Transition

Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Tangible Benefit:							
ROD - Paul G Warne Contract is maintenance on 2 of the existing microfilm machines.	4,300	4,343	4,386	4,430	4,475	4,519	26,454
ROD - Praxair Contract - maintenance contract for the film feeder. Converts document to film.	600	606	612	618	624	631	3,691
ROD - Allan Brenner Supply Contract - contract for supplies including film, film reels, development supplies, and printer toner kits	30,000	30,300	30,603	30,909	31,218	31,530	184,560
ROD - Graphic Sciences Contract - maintenance on 2 of the Minolta machines	29,045	29,335	29,629	29,925	30,224	30,527	178,685
ROD - Printer Makers Service Contract	35,945	36,304	36,667	37,034	37,405	37,779	221,134
Tangible Benefits Subtotal:	***99,890***	***100,889***	***101,898***	***102,917***	***103,946***	***104,985***	***614,525***
Cost Avoidance:							
ROD - Film Retrieval	11,440	11,554	11,670	11,787	11,905	12,024	70,379
Treasurer - will save staff costs by converting the microfilm documents to a digital format.	5,760	5,818	5,876	5,935	5,994	6,054	35,436
Treasurer - Print Supplies	65	66	66	67	68	68	400
Cost Avoidance Subtotal:	***17,265***	***17,438***	***17,612***	***17,788***	***17,966***	***18,146***	***106,215***
Intangible Benefit:							
Ease of Access							
Employee Health and Safety							
Film has shelf life							
Film can be corrupted							
Providing services in the digital age							

Oakland County -- Microfilm Transition

Return on Investment Analysis

Savings Summary

Benefit/Savings Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Savings Total:	***117,155***	***118,327***	***119,510***	***120,705***	***121,912***	***123,131***	***720,739***

Oakland County -- Microfilm Transition

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	790	165	130,350		X					
IT Hours - System Maintenance	Development Svcs		HR	10	165	1,650			X	X	X	X	X
IT Hours - Customer Support	Development Svcs		HR	20	165	3,300			X	X	X	X	X
IT Hours - Planned Maintenance	Development Svcs				165	0							
User Hours - New Development	Development Svcs					0							
User Hours - PTNE/OT	Development Svcs					0							
Contractor Professional Services	Development Svcs					0							
PC System - Acquisition	Hardware				687	0							
PC System - Maintenance	Hardware				2,936	0							
Notebook - Acquisition	Hardware				1,115	0							
Notebook - Maintenance	Hardware				3,024	0							
Tablet Notebook - Acquisition	Hardware				1,421	0							
Tablet Notebook - Maintenance	Hardware				2,800	0							
Microfilm & Microfiche Carrier - Aquisition	Hardware		EA	2	72,100	144,200		X					
Microfilm & Microfiche Carrier - Maintenance	Hardware		EA	2	6,999	13,998		X	X	X	X	X	X
PC Maintenance User Owned	Hardware				2,720	0							
Printer Maintenance User Owned	Hardware				1,264	0							
File Space (100GB)	Hardware		ANN		23	0							
Package Software - Acquisition	Software					0							
Package Software - Maintenance	Software												
Business Objects Access	Software					0							
Term Emulation SFTW-Acquisition	Software					0							
Term Emulation SFTW-Maintenance	Software					0							
Server - Acquisition/Upgrade	Infrastructure				8,000	0							
Server - Maintenance	Infrastructure				360	0							
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 -- Microfilm Transition

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				4,218	0							
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							

Oakland County -- Microfilm Transition

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
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							
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure				2,635	0							
SSL Certificate	Infrastructure				845	0							
Internet Access	Infrastructure				180	0							
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure		ANN		500	0							
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure		ANN		415	0							
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		19,158	0							
DB Maintenance (Annual Cycle $610)	Infrastructure		ANN		610	0							
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		4,150	0							
DB Instance Setup	Infrastructure				976	0							
DBA MS SQL Database Creation on Existing Instance	Infrastructure				366	0							
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $601 On Premise Physical Server = N/A	Infrastructure		ANN			0							

Oakland County -- Microfilm Transition

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
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							
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $7,564 On Premise Physical Server = $12,906	Infrastructure		ANN			0							

Oakland County -- Microfilm Transition

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	130,350.00					
IT Hours - System Maintenance	Development Svcs		1,650.00	1,650.00	1,650.00	1,650.00	1,650.00
IT Hours - Customer Support	Development Svcs		3,300.00	3,300.00	3,300.00	3,300.00	3,300.00
IT Hours - Planned Maintenance	Development Svcs						
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						
Notebook - Acquisition	Hardware						
Notebook - Maintenance	Hardware						
Tablet Notebook - Acquisition	Hardware						
Tablet Notebook - Maintenance	Hardware						
Microfilm & Microfiche Carrier - Aquisition	Hardware	144,200.00					
Microfilm & Microfiche Carrier - Maintenance	Hardware	13,998.00	13,998.00	13,998.00	13,998.00	13,998.00	13,998.00
PC Maintenance User Owned	Hardware						
Printer Maintenance User Owned	Hardware						
File Space (100GB)	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						
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 -- Microfilm Transition

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						
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						

Oakland County -- Microfilm Transition

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
Websphere Basic Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure						
Websphere ND Per Processor Single/Dual Core - Includes Year 1 Maintenance	Infrastructure						
Websphere ND Per Processor Single/Dual Core - Year 2 and Beyond	Infrastructure						
SSL Certificate	Infrastructure						
Internet Access	Infrastructure						
Imperva Web Application Firewall (External Web Applications Only)	Infrastructure						
App Code Directories on Consolidated IIS Server (Virtual)	Infrastructure						
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						
DB Maintenance (Annual Cycle $610)	Infrastructure						
DB Maintenance (Semi-Annual Cycle $1220)	Infrastructure						
DB Maintenance (Semi-Annual Cycle $2440)	Infrastructure						
Dedicated Virtual Server	Infrastructure						
DB Instance Setup	Infrastructure						
DBA MS SQL Database Creation on Existing Instance	Infrastructure						
Extra Small - 2 Core 8GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $601 On Premise Physical Server = N/A	Infrastructure						

Oakland County -- Microfilm Transition

Return on Investment Analysis

Cost Detail

Cost Description	Project Cost Category	Potential Cost Extensions					
		Y1	Y2	Y3	Y4	Y5	Y6
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						
Extra Large - 40 Core 160GB RAM, 500GB Drive, 10 GB NIC - Cloud/Virtual = $7,564 On Premise Physical Server = $12,906	Infrastructure						

Oakland County -- Microfilm Transition

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	130,350						130,350
IT Hours - System Maintenance		1,650	1,650	1,650	1,650	1,650	8,250
IT Hours - Customer Support		3,300	3,300	3,300	3,300	3,300	16,500
IT Hours - Planned Maintenance							
User Hours - New Development							
User Hours - PTNE/OT							
Contractor Professional Services							
Development Services Subtotal:	***130,350***	***4,950***	***4,950***	***4,950***	***4,950***	***4,950***	***155,100***
Hardware:							
Microfilm & Microfiche Carrier - Aquisition	144,200						144,200
Microfilm & Microfiche Carrier - Maintenance	13,998	13,998	13,998	13,998	13,998	13,998	83,988
Hardware Subtotal:	***158,198***	***13,998***	***13,998***	***13,998***	***13,998***	***13,998***	***228,188***
Software:							
Software Subtotal:							
Infrastructure:							
Infrastructure Subtotal							
Training:							
Training Subtotal:							
Other:							

Oakland County -- Microfilm Transition

Return on Investment Analysis

Cost Summary

Cost Description	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Total
Other Subtotal:							
Costs Total:	***288,548***	***18,948***	***18,948***	***18,948***	***18,948***	***18,948***	***383,288***

Oakland County -- Microfilm Transition

Return on Investment Analysis

Assumptions

Date	Assumption Description
11-Mar-20	This project is being sponsored by two departments. Register of Deeds is the primary sponsor and Treasury is the co-sponsor.
11-Mar-20	Register of Deeds spends 520 hours per year retrivieving film for multiple areas.
11-Jun-20	Micrographics will not store any documents for other departments
11-Jun-20	The existing chargeback services that ROD has in place for the microfilm machines will continue for the new equipment.
11-Jun-20	Micrographics will use requesting departments software to share the content.
11-Jun-20	The hardware will integrate with LaserFiche