### Project Name: Equalization LAMS Property Split Workflow Project ID: D93125PS

| Leadership G  | Leadership Group: Land |                        |                           |        |                               |                     |              |  |  |
|---|------------------------|------------------------|---------------------------|--------|-------------------------------|---------------------|--------------|--|--|
| Department: Equalization                                    |                        |                        |                           |        | Division: Management & Budget |                     |              |  |  |
| Project Sponsor: Terry Schultz Date Requ                    |                        |                        | ate Requested: 03/08/2022 |        |                               | PM Customer No. 125 |              |  |  |
| Request Type: New Development X Enhancement Customer Supple |                        |                        |                           |        |                               | stomer Support      |              |  |  |
| Planned System Maintenance or Upgrade                       |                        |                        |                           |        |                               |                     |              |  |  |
| IT Team Name: Assessing and Taxation IT Team No: 9          |                        |                        |                           |        |                               |                     |              |  |  |
| Project Manag   | ger/Leader:            | Gretchen Bl            | ackwell                   |        |                               |                     |              |  |  |
| Account<br>Number: 3  | 1075                   | Account<br>Description | : Equal -                 | - Deve | elopment                      | Customer<br>Name:   | Equalization |  |  |
| Grant Funded  | ?                      | Yes No                 | x                         |        | ndate? Yes<br>ndate Source:   |                     | No X         |  |  |

# Project Goal

To create an electronic property split workflow application for Assessors to submit property splits to the Oakland County Land Description Department so that forms/documentation submitted, notifications and parcel creation status can be tracked.

# **Business Objective**

To improve customer service and time spent on follow up and inquiry calls after a new property split has been created.

### Major Deliverables

- Detailed Project Plan
- Application and/or System Requirements
- Technical Design Document
- Technical Architecture Diagram
- Training Plan
- User Acceptance Test Plan
- Implementation Plan
- Training/User Manual(s)
- Application Code
- Disaster Recovery Toolkit
- 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

## Project Name: Equalization LAMS Property Split Workflow Project ID: D93125PS

- Assess User Hardware and Software Requirements
- Conduct Tech Review
- 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**

### **IT Research & Advisory Services Recommendation**

Research Completed – Nothing Found

# **Benefits**

See Return on Investment (ROI) Analysis Document

# **Impact**

| Number of Users   | 66           |
|-------------------|--------------|
| Divisions         | Equalization |
| Leadership Groups | Land         |

# <u>Risk</u>

| 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 |

| <b>Project Name: Equalization LAMS Pro</b> | perty Split Workflow | Project ID: D93125PS |
|--|----------------------|----------------------|
|  |                      |                      |

# **Assumptions**

**Staffing** Equalization Staffing: clerical and appraiser staff will be available as needed

| <u>Role:</u>          | <u>Name</u>              | <u>Hours per Day</u> |
|-----------------------|--------------------------|----------------------|
| Project Sponsor:      | Terry Schultz            | As Needed            |
| Subject Matter Expert | Tiffany Jacob/Mike Glynn | As Needed            |

## Facilities

• N/A

## Technical

• The current 'To Do List' within the LAMS application to be used for indicating when a property split is completed.

## Funding

• Information Technology

### Other

• N/A

## Priority

• TBD

# **Constraints**

•

# **Exclusions**

• N/A

Project Name: Equalization LAMS Property Split Workflow

Project ID: D93125PS

#### PROJECT PHASE AUTHORIZATION

| Phase(s): All                                     |       |       |       |
|---|-------|-------|-------|
| Total Estimated Application Services              | Hours | : 753 |       |
| Total Estimated Technical Systems                 | Hours | : 65  |       |
| 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

| 18 Cost: \$134.970 |
|--------------------|
| 8                  |

Project Name: Equalization LAMS Property Split Workflow Project ID: D93125PS

#### PROJECT COMPLETION AUTHORIZATION

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

# Equalization LAMS Property Split Workflow - Size Estimate (+/- 10% to 50%)

| <sup>1</sup> Type  | ID     | Task Name                    | Estimated | Estimate Notes |
|--------------------|--------|------------------------------|-----------|----------------|
| 2                  |        |                              | Hours     |                |
| <sup>3</sup> Phase | 000000 | PROJECT MANAGEMENT           | 233       |                |
| 4 Phase            | 200000 | DEFINE BUSINESS REQUIREMENTS | 68        |                |
| <sup>5</sup> Phase | 300000 | DESIGN SYSTEM ARCHITECTURE   | 79        |                |
| <sup>6</sup> Phase | 500000 | DEVELOP APPLICATION          | 359       |                |
| 7 Phase            | 600000 | IMPLEMENTATION PHASE         | 54        |                |
| <sup>8</sup> Phase | 080000 | POST IMPLEMENTATION SUPPORT  | 25        |                |
| 9                  |        |                              | 818       |                |

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:                   | 0         | 39,544    | 39,544   | 39,544   | 39,544   | 39,544  | 197,720 |
| Costs:                                     |           |           |          |          |          |         |         |
| Development Services Subtotal:             | 134,970   | 9,075     | 9,075    | 9,075    | 9,075    | 9,075   | 180,345 |
| Hardware Subtotal:                         | 0         | 0         | 0        | 0        | 0        | 0       | 0       |
| 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                       | 0         | 39,544    | 39,544   | 39,544   | 39,544   | 39,544  | 197,720 |
| Annual Total Costs                         | 134,970   | 9,075     | 9,075    | 9,075    | 9,075    | 9,075   | 180,345 |
| Annual Return on Investment                | (134,970) | 30,469    | 30,469   | 30,469   | 30,469   | 30,469  | 17,375  |
| Annual Costs/Savings Ratio                 | 0.00%     | 22.95%    | 22.95%   | 22.95%   | 22.95%   | 22.95%  | ,       |
| Project Cumulative Statistics:             |           |           |          |          |          |         |         |
| Cumulative Total Savings                   | 0         | 39,544    | 79,088   | 118,632  | 158,176  | 197,720 | 197,720 |
| Cumulative Total Costs                     | 134,970   | 144,045   | 153,120  | 162,195  | 171,270  | 180,345 | 180,345 |
| Cumulative Return on Investment            | (134,970) | (104,501) | (74,032) | (43,563) | (13,094) | 17,375  | 17,375  |
| Cumulative Cost/Savings Ratio              | 0.00%     | 364.27%   | 193.61%  | 136.72%  | 108.28%  | 91.21%  | 91.21%  |
| Year Positive Payback Achieved             |           |           |          |          |          | Year 6  | Year 6  |
| State or Federal Mandate?                  |           |           |          |          |          |         |         |
| Signatures:                                |           |           |          |          |          |         |         |
| Benefits Reviewed By Project Sponsor       |           |           |          | Date:    |          |         |         |
|  |           |           |          | Dale.    |          |         |         |
| Costs (including IT Resources) Reviewed By |           |           |          |          |          |         |         |
| Information Technology Project Manager     |           |           |          | Date:    |          |         |         |
|  |           |           |          |          |          |         |         |

Return on Investment Analysis

Savings Detail

| Benefit/Savings Description             | Project Savings<br>Category | Budget Category/Funding Source | Unit<br>Desc | Units | Rate per<br>Unit | Total Savings | Annual<br>Multiplier |
|---|-----------------------------|--------------------------------|--------------|-------|------------------|---------------|----------------------|
| Reducing the amount of time Land        |                             |                                |              |       |                  |               |                      |
| description staff will spend to notify  |                             |                                |              |       |                  |               |                      |
| each CVT.                               | Cost Avoidance              |                                | ANN          | 219   | 40               | 8,760         |                      |
| Improve user experience by reducing     |                             |                                |              |       |                  |               |                      |
| the time and effort spent by CVTs in    |                             |                                |              |       |                  |               |                      |
| getting new Parcel Identification       |                             |                                |              |       |                  |               |                      |
| Numbers (PINS).                         | Cost Avoidance              |                                | ANN          | 832   | 37               | 30,784        |                      |
| Improve documentation submission and    |                             |                                |              |       |                  |               |                      |
| verification process                    | Intangible Benefit          |                                |              |       |                  | 0             |                      |
| Eliminate inefficiencies in the current | -                           |                                |              |       |                  |               |                      |
| manual process                          | Intangible Benefit          |                                |              |       |                  | 0             |                      |
|   |                             |                                |              |       |                  | 0             |                      |
|   |                             |                                |              |       |                  | 0             |                      |
|   |                             |                                |              |       |                  | 0             |                      |
|   |                             |                                |              |       |                  | 0             |                      |
|   |                             |                                |              |       |                  | 0             |                      |
|   |                             |                                |              |       |                  | 0             |                      |
|   |                             |                                |              |       |                  | 0             |                      |

Return on Investment Analysis

Savings Detail

|   |                             | Affects Project ROI? |    |          | <b>I</b> ? | Potential Savings Extensions |     |    |    |           |           |           |           |        |
|---|-----------------------------|----------------------|----|----------|------------|------------------------------|-----|----|----|-----------|-----------|-----------|-----------|--------|
| Benefit/Savings Description             | Project Savings<br>Category | Y1                   | Y2 | Y3       | 8 Y4       | I Y                          | 5 ١ | Y6 | Y1 | Y2        | Y3        | Y4        | Y5        | Y6     |
| Reducing the amount of time Land        |                             |                      |    |          | -          | -                            | ł   |    |    |           |           |           |           |        |
| description staff will spend to notify  |                             |                      |    |          |            |                              |     |    |    |           |           |           |           |        |
| each CVT.                               | Cost Avoidance              |                      | Х  | х        | х          | х                            | X   | (  |    | 8,760.00  | 8,760.00  | 8,760.00  | 8,760.00  | 8,760  |
| Improve user experience by reducing     |                             |                      |    |          |            |                              |     |    |    |           |           |           |           |        |
| the time and effort spent by CVTs in    |                             |                      |    |          |            |                              |     |    |    |           |           |           |           |        |
| getting new Parcel Identification       |                             |                      |    |          |            |                              |     |    |    |           |           |           |           |        |
| Numbers (PINS).                         | Cost Avoidance              |                      | х  | х        | х          | х                            | х   | (  |    | 30,784.00 | 30,784.00 | 30,784.00 | 30,784.00 | 30,784 |
| Improve documentation submission and    |                             |                      |    |          |            |                              |     |    |    |           |           |           |           |        |
| verification process                    | Intangible Benefit          |                      |    |          |            |                              |     |    |    |           |           |           |           |        |
| Eliminate inefficiencies in the current |                             |                      |    |          | 1          |                              |     |    |    |           |           |           |           |        |
| manual process                          | Intangible Benefit          |                      |    |          |            |                              |     |    |    |           |           |           |           |        |
|   |                             |                      |    | <u> </u> | 1          | 1                            |     |    |    |           |           |           |           |        |
|   |                             |                      |    |          |            |                              |     |    |    |           |           |           |           |        |
|   |                             |                      |    | !        |            | 1                            |     |    |    |           |           |           |           |        |
|   |                             |                      |    |          |            |                              |     |    |    |           |           |           |           |        |
|   |                             |                      |    | <u> </u> | 1          |                              |     |    |    |           |           |           |           |        |
|   |                             |                      |    | <u> </u> | 1          | 1                            |     |    |    |           |           |           |           |        |
|   |                             |                      |    |          | 1          | 1                            |     |    |    |           |           |           |           |        |

Date: 06/23/2022

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:                                |        |        |        |        |        |        |         |
| Reducing the amount of time Land               |        |        |        |        |        |        |         |
| description staff will spend to notify each    |        |        |        |        |        |        |         |
| CVT.   |        | 8,760  | 8,760  | 8,760  | 8,760  | 8,760  | 43,800  |
| Improve user experience by reducing the        |        | 0,100  |        | 0,100  | 0,100  | 0,100  | 10,000  |
| time and effort spent by CVTs in getting new   |        |        |        |        |        |        |         |
| Parcel Identification Numbers (PINS).          |        | 30,784 | 30,784 | 30,784 | 30,784 | 30,784 | 153,920 |
|  |        |        |        |        |        |        | 100,020 |
|  |        |        |        |        |        |        |         |
|  |        |        |        |        |        |        |         |
|  |        |        |        |        |        |        |         |
|  |        |        |        |        |        |        |         |
|  |        |        |        |        |        |        |         |
|  |        |        |        |        |        |        |         |
|  |        |        |        |        |        |        |         |
| Cost Avoidance Subtotal:                       |        | 39,544 | 39,544 | 39,544 | 39,544 | 39,544 | 197,720 |
| Intangible Benefit:                            |        |        |        |        |        |        |         |
| Improve documentation submission and           |        |        |        |        |        |        |         |
| verification process                           |        |        |        |        |        |        |         |
| Eliminate inefficiencies in the current manual |        |        |        |        |        |        |         |
| process  |        |        |        |        |        |        |         |
|  |        |        |        |        |        |        |         |
|  |        |        |        |        |        |        |         |
|  |        |        |        |        |        |        |         |
|  |        |        |        |        |        |        |         |
|  |        |        |        |        |        |        |         |
| Savings Total:                                 |        | 39,544 | 39,544 | 39,544 | 39,544 | 39,544 | 197,720 |

Return on Investment Analysis

|  |                  |                         |      |       |          |            |            | Af | Affects Pro |            | ojec           | t RC     | ) ? |
|--|------------------|-------------------------|------|-------|----------|------------|------------|----|-------------|------------|----------------|----------|-----|
|  | Project Cost     | Budget Category/Funding | Unit |       | Rate per |            | Annual     |    |             |            |                |          |     |
| Cost Description                       | Category         | Source                  | Desc | Units | Unit     | Total Cost | Multiplier | Y1 | Y2          | Y3         | Y4             | Y5       | Y6  |
| IT Hours - New Development             | Development Svcs |                         | HR   | 818   | 165      | 134,970    |            | Х  |             |            |                |          |     |
| IT Hours - System Maintenance          | Development Svcs |                         | HR   | 15    | 165      | 2,475      |            |    | Х           | Х          | Х              |          | Х   |
| IT Hours - Customer Support            | Development Svcs |                         | HR   | 40    | 165      | 6,600      |            |    | Х           | Х          | Х              | Х        | Х   |
| IT Hours - Planned Maintenance         | Development Svcs |                         |      |       | 165      | 0          |            |    |             |            |                | 1        |     |
| User Hours - New Development           | Development Svcs |                         |      |       | 165      | 0          |            |    | Ì           |            |                |          |     |
| 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          |            |    | Ì           |            | i              | ł        |     |
| 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          |            |    |             |            |                | 1        |     |
| Laser printer - Acquisition            | Hardware         |                         |      |       | 1,432    | 0          |            |    |             |            |                |          |     |
| Laser printer - Maintenance            | Hardware         |                         |      |       | 1,408    | 0          |            |    |             |            |                |          |     |
| PC Maintenance User Owned              | Hardware         |                         |      |       | 2,720    | 0          |            |    |             |            |                |          |     |
| Printer Maintenance User Owned         | Hardware         |                         |      |       | 1,264    | 0          |            |    |             |            | Í              |          |     |
| File Space (100GB)                     | Hardware         |                         | ANN  |       | 23       | 0          |            |    |             |            |                |          |     |
| Package Software - Acquisition         | Software         |                         |      |       |          | 0          |            |    |             |            |                | 1        |     |
| Package Software - Maintenance         | Software         |                         |      |       |          | 0          |            |    | 1           |            | ĺ              | 1        |     |
| 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 Software - Acquisition/Upgrade  | Infrastructure   |                         |      |       | 335      | 0          |            |    | l           | '          |                | i        | 1   |
| Server Software - Maintenance          | Infrastructure   |                         |      |       |          | 0          |            |    |             |            |                |          |     |
| Server Rack Mount                      | Infrastructure   |                         |      |       | 400      | 0          |            |    | İ           |            |                | -        |     |
| Oracle Enterprise Per Processor -      |                  |                         |      |       |          |            |            |    | 1           |            |                |          |     |
| Includes Year 1 Maintenance            | Infrastructure   |                         |      |       | 21,372   | 0          |            |    |             | 1          | i              | l        |     |
| Oracle Enterprise Per Processor - Year |                  |                         |      |       |          |            |            |    | İ           |            |                | 1        |     |
| 2 and Beyond                           | Infrastructure   |                         |      |       | 3,432    | 0          |            |    |             | <u> </u> ' | i <sup>i</sup> | <u>i</u> |     |

Return on Investment Analysis

|                                       |                |                         |      |       |          |            | Affects Proje |     | ect R | 01?    |       |      |
|---------------------------------------|----------------|-------------------------|------|-------|----------|------------|---------------|-----|-------|--------|-------|------|
|                                       | Project Cost   | Budget Category/Funding | Unit |       | Rate per |            | Annual        |     |       |        |       |      |
| Cost Description                      | Category       | Source                  | Desc | Units | Unit     | Total Cost | Multiplier    | Y1  | Y2    | Y3   ) | ′4 Y5 | 5 Y6 |
| SQL Server Enterprise - Per Processor |                |                         |      |       |          |            |               | T I | ļ     |        |       |      |
| (4 cores) - Purchased Sept 2016-Aug   |                |                         |      |       |          |            |               |     |       |        |       |      |
| 2017 - Includes Maintenance thru Aug  |                |                         |      |       |          |            |               |     |       |        |       | 1    |
| 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 |                |                         |      |       |          |            |               |     |       |        | Ţ     | 1    |
| (4 cores) - Purchased Sept 2018-Aug   |                |                         |      |       |          |            |               |     |       |        |       |      |
| 2019 - Includes Maintenance thru Aug  |                |                         |      |       |          |            |               |     |       |        |       |      |
| 2019                                  | Infrastructure |                         |      |       | 16,985   | 0          |               |     |       |        |       |      |
| SQL Server Enterprise - Maintenance,  |                |                         |      |       |          |            |               |     |       |        |       | 1    |
| Per Processor (4 cores) - Sept 2019   |                |                         |      |       |          |            |               |     |       |        |       | 1    |
| and Beyond                            | Infrastructure |                         |      |       | 4,218    | 0          |               |     |       |        |       |      |
| SQL Server Standard - Per Processor   |                |                         |      |       |          |            |               |     |       | ļ      |       |      |
| (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         |                |                         |      |       |          |            |               |     |       |        | Ī     |      |
| Single/Dual Core - Includes Year 1    |                |                         |      |       |          |            |               |     |       |        |       |      |
| Maintenance                           | Infrastructure |                         |      |       | 3,506    | 0          |               |     |       |        |       |      |

Return on Investment Analysis

|  |                          |                                   |              |       |                  |            | Affects Proje        |    | oject | ROI?       |    |       |
|--|--------------------------|-----------------------------------|--------------|-------|------------------|------------|----------------------|----|-------|------------|----|-------|
| Cost Description                         | Project Cost<br>Category | Budget Category/Funding<br>Source | Unit<br>Desc | Units | Rate per<br>Unit | Total Cost | Annual<br>Multiplier | V1 | Vo    | <b>V</b> 2 | VA | Y5 Ye |
| Cost Description                         | Category                 | Source                            | Desc         | Units | Unit             | Total Cost | Multiplier           |    | 12    | 13         | 14 | 15 10 |
| WebSphere Basic Per Processor            |                          |                                   |              |       |                  |            |                      |    |       |            | ļ  |       |
|  | Infrastructure           |                                   |              |       | 701              | 0          |                      |    |       |            |    |       |
| WebSphere ND Per Processor               | Initiastructure          |                                   |              |       | 701              | 0          |                      |    |       |            |    |       |
| Single/Dual Core - Includes Year 1       |                          |                                   |              |       |                  |            |                      |    |       |            | 1  |       |
| Maintenance                              | Infrastructure           |                                   |              |       | 13,180           | 0          |                      |    |       |            | 1  |       |
| Maintenance                              | Initastructure           |                                   |              |       | 13,100           | 0          |                      |    |       |            |    |       |
| WebSphere ND Per Processor               |                          |                                   |              |       |                  |            |                      |    |       |            |    |       |
|  | Infrastructure           |                                   |              |       | 2,635            | 0          |                      |    |       |            | 1  |       |
| SSL Certificate                          | Infrastructure           |                                   |              |       | 2,635            | 0          |                      |    |       |            |    |       |
| Internet Access                          | Infrastructure           |                                   |              |       | 045<br>180       | 0          |                      |    |       |            |    |       |
|  | Inirastructure           |                                   |              |       | 180              | 0          |                      |    |       |            |    |       |
| Imperva Web Application Firewall         | 1. f                     |                                   | A N IN I     |       | 500              | 0          |                      |    |       |            |    |       |
| (External Web Applications Only)         | Infrastructure           |                                   | ANN          |       | 500              | 0          |                      |    |       |            |    |       |
| App Code Directories on Consolidated     |                          |                                   |              |       | 115              | 0          |                      |    |       |            |    |       |
| 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         |                          |                                   |              |       |                  |            |                      |    |       |            | 1  |       |
| Consolidated SQL Server                  | Infrastructure           |                                   | ANN          |       | 2,395            | 0          |                      |    |       |            |    |       |
| Database SQL Maintenance Server          | Infrastructure           |                                   | ANN          |       | 834              |            |                      |    |       |            |    |       |
| Database SQL Server Physical             | Infrastructure           |                                   | ANN          |       | 19,158           |            |                      |    |       |            |    |       |
| DB Maintenance (Annual Cycle \$610)      | Infrastructure           |                                   | ANN          |       | 610              |            |                      |    |       |            |    |       |
| DB Maintenance (Semi-Annual Cycle        |                          |                                   |              |       |                  |            |                      |    |       |            | 1  |       |
| \$1220)                                  | Infrastructure           |                                   | ANN          |       | 1,220            |            |                      |    |       |            |    |       |
| DB Maintenance (Semi-Annual Cycle        |                          |                                   |              |       |                  |            |                      |    |       |            |    |       |
| \$2440)                                  | Infrastructure           |                                   | ANN          |       | 2,440            |            |                      |    |       |            |    |       |
| Dedicated Virtual Server                 | Infrastructure           |                                   | ANN          |       | 4,150            |            |                      |    |       |            | į  |       |
| DB Instance Setup                        | Infrastructure           |                                   |              |       | 976              |            |                      |    |       |            | l  |       |
| DBA MS SQL Database Creation on          |                          |                                   |              |       |                  |            |                      |    |       |            | 1  |       |
| Existing Instance                        | Infrastructure           |                                   |              |       | 366              |            |                      |    |       |            |    |       |
|  |                          |                                   |              |       |                  |            |                      |    |       |            |    |       |
| Extra Small - 2 Core 8GB RAM, 500GB      |                          |                                   |              |       |                  |            |                      |    |       |            | i  |       |
| Drive, 10 GB NIC - Cloud/Virtual = \$601 |                          |                                   |              |       |                  |            |                      |    |       |            | l  |       |
| On Premise Physical Server = N/A         | Infrastructure           |                                   | ANN          |       |                  |            |                      |    |       |            |    |       |

Return on Investment Analysis

|  |                |                         |      |       |          |            |            | Af | fect | s Pro | oject | t RO | ?          |
|--|----------------|-------------------------|------|-------|----------|------------|------------|----|------|-------|-------|------|------------|
|  | Project Cost   | Budget Category/Funding | Unit |       | Rate per |            | Annual     |    |      |       |       |      |            |
| Cost Description                         | Category       | Source                  | Desc | Units | Unit     | Total Cost | Multiplier | Y1 | Y2   | Y3    | Y4    | Y5 ` | <b>/</b> 6 |
|  |                |                         |      |       |          |            |            |    |      |       |       |      |            |
| Small - 4 Core 16GB RAM, 500GB           |                |                         |      |       |          |            |            |    |      |       |       |      |            |
| Drive, 10 GB NIC - Cloud/Virtual = \$951 |                |                         |      |       |          |            |            |    |      |       | 1     |      |            |
| On Premise Physical Server = \$9,288     | Infrastructure |                         | ANN  |       |          |            |            |    |      |       | l     | ļ    |            |
| Medium - 8 Core 32GB RAM, 500GB          |                |                         |      |       |          |            |            |    |      |       | ļ     |      |            |
| Drive, 10 GB NIC - Cloud/Virtual =       |                |                         |      |       |          |            |            |    |      |       |       |      |            |
| \$1,702 On Premise Physical Server =     |                |                         |      |       |          |            |            |    |      |       | 1     |      |            |
| \$9,751                                  | Infrastructure |                         | ANN  |       |          |            |            |    |      |       | 1     |      |            |
| Large - 16 Core 64GB RAM, 500GB          |                |                         |      |       |          |            |            |    |      |       | I     |      |            |
| Drive, 10 GB NIC - Cloud/Virtual =       |                |                         |      |       |          |            |            |    |      |       |       |      |            |
| \$3,167 On Premise Physical Server =     |                |                         |      |       |          |            |            |    |      |       | 1     |      |            |
| \$10,446                                 | Infrastructure |                         | ANN  |       |          | 0          |            |    |      |       | l     |      |            |
| Extra Large - 40 Core 160GB RAM,         |                |                         |      |       |          |            |            |    |      |       |       |      |            |
| 500GB Drive, 10 GB NIC - Cloud/Virtual   |                |                         |      |       |          |            |            |    |      |       |       |      |            |
| = \$7,564 On Premise Physical Server =   |                |                         |      |       |          |            |            |    |      |       |       |      |            |
| \$12,906                                 | Infrastructure |                         | ANN  |       |          | 0          |            |    |      |       | ļ     |      |            |

Return on Investment Analysis

|  |                  |            | Pote     | ntial Cost E | xtensions |          |          |
|--|------------------|------------|----------|--------------|-----------|----------|----------|
|  | Project Cost     |            |          |              |           |          |          |
| Cost Description                       | Category         | Y1         | Y2       | Y3           | Y4        | Y5       | Y6       |
| IT Hours - New Development             | Development Svcs | 134,970.00 |          |              |           |          |          |
| IT Hours - System Maintenance          | Development Svcs |            | 2,475.00 | 2,475.00     |           | 2,475.00 | 2,475.00 |
| IT Hours - Customer Support            | Development Svcs |            | 6,600.00 | 6,600.00     | 6,600.00  | 6,600.00 | 6,600.00 |
| 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         |            |          |              |           |          |          |
| Laser printer - Acquisition            | Hardware         |            |          |              |           |          |          |
| Laser printer - Maintenance            | Hardware         |            |          |              |           |          |          |
| 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 Software - Acquisition/Upgrade  | Infrastructure   |            |          |              |           |          |          |
| Server Software - Maintenance          | Infrastructure   |            |          |              |           |          |          |
| Server Rack Mount                      | Infrastructure   |            |          |              |           |          |          |
| Oracle Enterprise Per Processor -      |                  |            |          |              |           |          |          |
| Includes Year 1 Maintenance            | Infrastructure   |            |          |              |           |          |          |
| Oracle Enterprise Per Processor - Year |                  |            |          |              |           |          |          |
| 2 and Beyond                           | Infrastructure   |            |          |              |           |          |          |

Return on Investment Analysis

|                                       |                | Potential Cost Extensions |          |          |    |    |    |  |
|---------------------------------------|----------------|---------------------------|----------|----------|----|----|----|--|
|                                       | Project Cost   |                           |          |          |    |    |    |  |
| Cost Description                      | Category       | 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    |                |                           | Ì        |          |    |    |    |  |
| Maintenance                           | Infrastructure |                           | <u> </u> | <u> </u> |    |    |    |  |

Return on Investment Analysis

|  |                | Potential Cost Extensions |    |    |    |    |    |  |
|--|----------------|---------------------------|----|----|----|----|----|--|
|  | Project Cost   |                           |    |    |    |    |    |  |
| Cost Description                         | Category       | Y1                        | Y2 | Y3 | Y4 | Y5 | Y6 |  |
|  |                |                           |    |    |    |    |    |  |
| WebSphere Basic Per Processor            |                |                           | 1  |    |    |    |    |  |
| 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 |                           |    | l  |    |    |    |  |
| SSL Certificate                          | Infrastructure |                           |    |    |    |    |    |  |
| Internet Access                          | Infrastructure |                           |    | ļ  |    |    |    |  |
| 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 Maintenance 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 |                           |    |    |    |    |    |  |

Return on Investment Analysis

|  |                          |    | Pot | tential Cost E | xtensions |             |    |
|--|--------------------------|----|-----|----------------|-----------|-------------|----|
| Cost Description                         | Project Cost<br>Category | Y1 | Y2  | Y3             | ¥4        | ¥5          | 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           |    |     |                | <br> <br> | 1<br>1<br>1 |    |
| 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           |    |     |                |           |             |    |

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       | 134,970 |        |        |        |        |        | 134,970 |
| IT Hours - System Maintenance    |         | 2,475  | 2,475  | 2,475  | 2,475  | 2,475  | 12,375  |
| IT Hours - Customer Support      |         | 6,600  | 6,600  | 6,600  | 6,600  | 6,600  | 33,000  |
| IT Hours - Planned Maintenance   |         |        |        |        |        |        |         |
| User Hours - New Development     |         |        |        |        |        |        |         |
| User Hours - PTNE/OT             |         |        |        |        |        |        |         |
| Contractor Professional Services |         |        |        |        |        |        |         |
| Development Services Subtotal:   | 134,970 | 9,075  | 9,075  | 9,075  | 9,075  | 9,075  | 180,345 |
| Hardware:                        |         |        |        |        |        |        |         |
| Hardware Subtotal:               |         |        |        |        |        |        |         |
| Software:                        |         |        |        |        |        |        |         |
|                                  |         |        |        |        |        |        |         |
| Software Subtotal:               |         |        |        |        |        |        |         |
| Infrastructure:                  |         |        |        |        |        |        |         |
| Infrastructure Subtotal          |         |        |        |        |        |        |         |
| Training:                        |         |        |        |        |        |        |         |
| Training Subtotal:               |         |        |        |        |        |        |         |
| Other:                           |         |        |        |        |        |        |         |
| Other Subtotal:                  |         |        |        |        |        |        |         |
| Costs Total:                     | 134,970 | 9,075  | 9,075  | 9,075  | 9,075  | 9,075  | 180,345 |

Return on Investment Analysis

Assumptions

| Dete      | Assumption Description  |
|-----------|---|
| Date      |   |
| 15-Feb-22 | Creating a new workflow within the new LAMS application.  |
|           | Reducing the amount of time Land description staff will spend to notify each CVT.657 jobs processed last year*20 min each               |
| 15-Feb-22 | notification=\$13,140 min/60 min= 219 hrs. 219*\$40 = \$8,760/yr.   |
|           | Improve user experience by reducing the time and effort spent by CVTs in getting new Parcel Identification Numbers (PINS) -16 hours for |
| 15-Feb-22 | each notification= 16*52=832hrs @ 37/hr.=30,784/yr.   |
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