2021-23 Department of State Police
Legislative Adopted Budget

ADDENDUM REPORTS

Business Case for the *CRIMEvue Replacement Project*

Oregon State Police,
Public Safety Systems Bureau,
Criminal Justice Information Services Division

Date: May 14, 2020
Version: 4.0
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Revised by OSP

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Business Case – Authorizing Signatures

PROPOSAL NAME AND DOCUMENT VERSION #	**CRIMEvue Replacement Project** **Business Case 2.0**		
AGENCY	Oregon State Police	DATE	November 25, 2015
DIVISION	Criminal Justice Information Services	DAS CONTROL #	TBD
AGENCY CONTACT	Captain Tom M. Worthy	PHONE NUMBER	(503) 934-0266

The person signing this section is attesting to reviewing and approving the business case as proposed.

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Agency Business Owner	
Tricia Whitfield	(Date)
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Business Case Update – Authorizing Signatures

PROPOSAL NAME AND DOCUMENT VERSION #	**CRIMEvue Replacement Project** **Business Case 2.1**		
AGENCY	Oregon State Police	DATE	September 30, 2016
DIVISION	Criminal Justice Information Services	DAS CONTROL #	TBD
AGENCY CONTACT	Mathew Oeder	PHONE NUMBER	(503) 934-2328

The person signing this section is attesting to reviewing and approving the updated business case as proposed within Appendix G.

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Superintendent Travis Hampton	(Date)
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Table of Contents

Acronyms and Glossary

The table below serves as a glossary of terms and acronyms used throughout this document.

Acronym	Definition
AA	Arresting Agency
ABIS	Automated Biometric Identification System
AFIS	Automated Fingerprint Identification System
AFPC	Arrest Fingerprint Card
BoPPPS	Board of Parole and Post-Prison Supervision
CAD	Computer-Aided Dispatch
CCH	Computerized Criminal History
CEA	Current Environment Analysis
CGC	CHIE Governance Committee
CHIE	Criminal History Integration Environment
CHRI	Criminal History Records Information
CHL	Concealed Handgun Licensing
CHU	Clearinghouse Unit
CIO	Chief Information Officer
CJIS	Criminal Justice Information Services
COO	Chief Operating Officer
COOP	Continuity of Operations
COTS	Commercial Off-the-Shelf
CPI	Computer Products of Illinois
CSO	CJIS Systems Officer
DAS	Department of Administrative Services
DCI	Diverse Computing, Inc.
DHS	Department of Human Services
DMV	Driver and Motor Vehicle Services Division
EBTS	Electronic Biometric Transmission Specification
ESB	Enterprise Service Bus
ETS	Enterprise Technology Services
FB	Fiscal Biennium
FBI	Federal Bureau of Investigation

Acronym	Definition
FICS	Firearms Instant Check System
FPC#	Fingerprint Control Number
FTE	Full-Time Equivalent
GJXDD	Global Justice XML Data Dictionary
GJXDM	Global Justice XML Data Model
GUI	Graphical User Interface
IAFIS	FBI's Integrated AFIS (now known as the Next Generation IAFIS [NGI])
III	Interstate Identification Index
ISS	Identification Services Section
IT	Information Technology
KIDS Act	Keeping the Internet Devoid of Sexual Predators Act
LD	Limited Duration
LEA	Law Enforcement Agency
LEDS	Law Enforcement Data System
Leidos	Oregon's original CCH developer formerly known as Science Applications International Corporation (SAIC)
LEMS	Law Enforcement Message Switch
LIMS	Laboratory Information Management System
NARIP	NICS Act Record Improvement Program
NASCIO	National Association of State Chief Information Officers
NBCP	National Background Check Program
NCIC	National Crime Information Center
N-DEx	National Data Exchange
NFF	National Fingerprint File
NGI	FBI's Next Generation IAFIS
NIBRS	National Incident-Based Reporting System
NICS	National Instant Criminal Background Check System
NIEM	National Information Exchange Model
Nlets	The International Justice and Public Safety Network, formerly known as the National Law Enforcement Telecommunications System.
NPV	Net Present Value
NSOR	National Sex Offender Registry
OAR	Oregon Administrative Rule

Acronym	Definition
ODBC	Open Database Connectivity
ODOC	Oregon Department of Corrections
OHA	Oregon Health Authority
OJD	Oregon Judicial Department
OJIN	Oregon Judicial Information Network
ORI	Originating Agency Identifier
ORS	Oregon Revised Statute
OSCIO	Office of the State Chief Information Officer
OSP	Oregon State Police
OUCR	Oregon Uniform Crime Reporting
OYA	Oregon Youth Authority
PMO	Project Management Office
PMP	Project Management Professional
POP	Point of Presence
PSRB	Psychiatric Security Review Board
PTA	Prison Term Analyst
QA	Quality Assurance
RAP	Record of Arrest and Prosecution (as in RAP sheet)
RMS	Records Management System
SAIC	Science Applications International Corporation (now Leidos)
SMART	Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking (U.S. Justice Department)
SME	Subject Matter Expert
SOA	Service-Oriented Architecture
SOR	Sex Offender Registry
SORM	Sex Offender Registry Mobile
SORNA	Sex Offender Reporting and Notification Act
SORT	Sex Offender Registry Tool
SOW	Scope of Work
TBI	Tennessee Bureau of Investigation
TOU	Technical Operational Update
TQM	Total Quality Management

Acronym	Definition
UCR	Uniform Crime Reporting
WIN	Western Identification Network
WSP	Washington State Patrol

Contributors

This Oregon State Police (OSP) business case document was prepared under contract by MTG Management Consultants, LLC, with the participation the Law Enforcement Data System (LEDS) user community and the Criminal Justice Information Advisory Board. The OSP project steering committee provided participation and oversight and consisted of the following personnel:

Resource	Title	OSP Area
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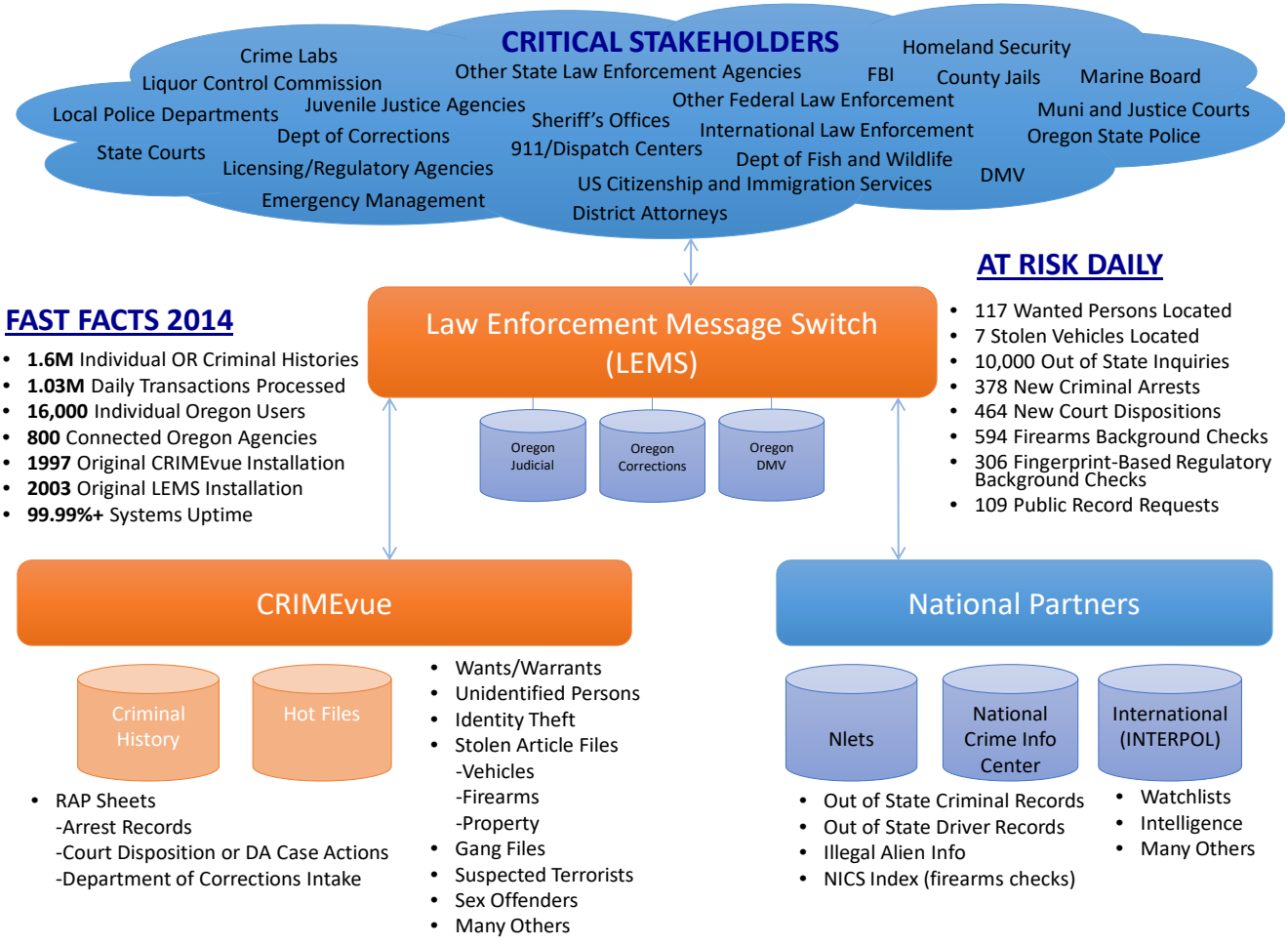
Mat Oeder	Manager	Criminal Justice Information Services (CJIS) Programs
Mike Bloom	Major	OSP
Mike Poverud	Information Security Officer	Enterprise Security
Rebecca David	Manager	Central Records Section
Terri Barczak	Project Manager	CRIMEvue Replacement Project
Tom Worthy	Captain	OSP
Tricia Whitfield	Director	CJIS Division

Executive Summary

CRIMEvue is the moniker used to describe a series of interrelated systems with a primary purpose of capturing, storing, and reporting criminal records information in Oregon. CRIMEvue contains some of the most mission-critical systems in the state. They operate 24 hours a day, 7 days a week, 365 days a year, to ensure public safety under the stewardship of OSP. Every hour of every day, these critical systems assist law enforcement and criminal justice entities in Oregon and worldwide in the performance of their duties. These systems support law enforcement actions, aid prosecutors in the preparation and execution of criminal cases, guide court research of criminal history to arrive at appropriate sentencing outcomes, facilitate the recovery of missing persons, help prevent unlawful firearm sales, and tie criminal justice systems together at the state and national levels through the exchange of data.

CRIMEvue Introduction

There are over 25,000 devices registered to access CRIMEvue data in Oregon from over 800 criminal justice and non-criminal justice-related agencies. Through agreements with national and federal partners, CRIMEvue information is accessed by many hundreds of thousands of agencies. The figure below exemplifies the many stakeholders and information assets associated with the CRIMEvue system. As a note, the items in orange are the primary components considered for replacement:



CRIMEvue Problems and Opportunities

As a result of the many interviews, steering committee sessions, background information reviews, and measurements and assessments three primary problem categories were identified as driving the need for system replacement; these are as follows:

- ***Degraded Technical Operational Capability*** – The software systems supporting CRIMEvue are aged and OSP cannot retain the talent necessary to operate the system in the near and long term. As such, business processes reliant on CRIMEvue cannot easily change, alter, or improve to meet management or operational goals, including those related to transformation, security, green IT, and business continuity. This condition puts into jeopardy every aspect of required service provision dictated by various laws, rules, and goals.
- ***Low Fidelity Information Tracking, Sharing, and Accessibility*** – CRIMEvue information forms the basis of many critical business decisions in Oregon and beyond. This includes decisions relative to citizen and officer safety, denial of civil liberties, and criminal sentencing determinations. Data quality assessments show low level of confidence in the data quality supporting these decisions, and the access to the available information is largely non-standardized and controlled by third-party vendors that profit from providing access to OSP information for law enforcement and civil purposes. Additionally, the tool sets needed to interact more effectively with business partners to promote access to justice and efficiencies in data sharing for purposes of improving services and operations are not in place and largely not yet conceived, due to the required focus on legacy service provision.
- ***Absence of Business Operational Information and Data Mining*** – CRIMEvue does not readily provide the basic management metrics necessary to govern criminal records management processes. There is no trending information relative to daily operations that would allow OSP management to identify and plan for operational and technical improvements. Additionally, the lack of information for objective measurements does not allow OSP to recognize business conditions in the overall justice community that could be used to affect policy or to forecast the impacts of such conditions.

Resulting Business Issues

As the result of the current systems status, several business issues are exposed:

- *OSP's Inability to Sustain Statutory Obligations.*
- *CRIMEvue's Incompatibility with the Governor's Objectives.*
- *CRIMEvue's Marginal Support of OSP's CJIS Division Purpose.*
- *OSP's Inability to Benefit From Its IT Strategic Plan.*
- *CRIMEvue's Data Quality, Business Challenge, and User Support Issues.*

Business Improvement Opportunities

Going forward, OSP has determined a series of opportunities beyond those that address their immediate problems as outlined above. OSP is seeking the ability to make significant business improvements in criminal history and hot file management. It is seeking a solution that can address the following specific needs:

- *Improve Efficiency*.
- *Provide More Value to Customers.*
- *Align OSP Services With Demand.*
- *Optimize Interactions With Partners.*
- *Provide Operational Insights*.

Technology and Architecture Opportunities

Key among the technology and architecture needs for OSP is a solution that includes and can address the following specific issues:

- *Take Advantage of Current Investments.*
- *Focus on Integration and Enforcement of Business Rules Electronically.*
- *Change the Role of OSP Support Resources*.

Business Service Opportunities

From a perspective of meeting business service goals, OSP seeks the following from the CRIMEvue replacement solution:

- *Reacting to Change in Standards.*
- *Optimizing Business Operations.*
- *Quality Management.*

In total, OSP seeks to ensure that the future CRIMEvue solutions are properly aligned with all relevant integration standards, industry best practices, and available vendor solutions as a means of maximizing the features and services that can be offered, while minimizing the total life cycle cost of the solution and related applications and technologies.

Alternatives Considered

This section of the business case provides a summary for each of the options or alternatives available to OSP in pursuit of an improved future CRIMEvue operating environment.

- ***Alternative 1: Do Nothing With Current CRIMEvue Systems*** – Continue with current support and maintenance contract for continued operation under the current system with Unisys and necessary support from Leidos (Oregon's original computerized criminal history [CCH] developer, formerly known as Science Applications International Corporation [SAIC]).
- ***Alternative 2: Replace CRIMEvue With COTS*** – Pursue a full competitive bid and acquisition of the hardware, software, and implementation services necessary for the replacement of the complete current CRIMEvue systems with a Commercial Off-the-Shelf (COTS) solution offering. COTS offerings include a spectrum of solutions with varying degrees of ability to configure. This includes packaged options and framework-based solutions.
- ***Alternative 3: Rewrite Systems Internally*** – Pursue a program of replacing some or all of the current systems using internal staff and resources. This is the equivalent of in-house software development.

A partnering approach with another peer agency nationally, was found not to be a valid option, since the Washington State Patrol (WSP) is already executing a competitive procurement and proceeding on the notion that no economies of scale will be attempted via a partnership with OSP. Further, other attempts by OSP to identify a governance structure to bring together other states have failed.

Selection Criteria Summary

Below is a summary view of how well each identified alternative performed in comparison to defined benefit/risk criteria. Explanations for how summary scores were calculated are provided below.

No.	Benefit/Risk Criteria	Do Nothing	Replace with COTS	Rewrite Systems Internally
1	Initial Capital Cost	●	◖	○
2	Cost to Maintain	○	◖	○
3	Operational Improvement	○	●	●
4	Stakeholder Benefit	○	●	●
5	Impact to OSP Technology	○	◖	◖
6	Application Flexibility	○	●	◖
7	Compliance With National Standards	○	●	●
8	Time to Deliver	●	◖	○
9	System Stability	○	●	●
10	Implementation Disruption	◖	○	●
11	Dependence on Internal OSP IT Staff Resources	○	◖	◖
12	Meets High-Level Solution Requirements	◖	●	●
13	Addresses Core Business Problems	○	●	●
14	Complies With Business Governance	◖	●	●
	Calculated Score:	***91***	***177***	***156***

Legend:
●= Significantly Satisfies
◖= Moderately Satisfies
○= Minimally Satisfies

Calculated Score Legend:
41 = Lowest Possible Score
205 = Highest Possible Score

Ranking and Recommended Alternative

Below is a summary view of the relative ranking of each alternative based on the analyses conducted in subsequent sections.

Option	CRIMEvue Replacement Strategy Description	Calculated Score	Relative Rank
Alternative 1	Do Nothing With CRIMEvue Systems	91	3
Alternative 2	***Replace CRIMEvue With COTS***	***177***	***1***
Alternative 3	Rewrite Systems Internally	156	2

As indicated above, Alternative 2 (replace CRIMEvue with a COTS solution) is the highest ranked solution for the many reasons discussed throughout the business case.

Conclusions and Recommendations

The bullet items below summarize the conclusions drawn from business case analyses and form the basis for the several recommendations that follow:

- *Conclusion 1 – CRIMEvue Must be Replaced*.
- *Conclusion 2 – Delays in CRIMEvue Replacement Will Jeopardize Public Safety.*
- *Conclusion 3 – OSP's Ability to Perpetuate the Current CRIMEvue Support Model Has Eroded*.
- *Conclusion 4 – Inability to Measure Business Metrics Has Led to Internal and External Complications*.
- *Conclusion 5 – An Outmoded Operational Model Has Led to Complications That Drive Unnecessary Expense to Users and Promote a Lack of Standardization.*
- *Conclusion 6 – There is a Severe Data Quality Issue Within CRIMEvue.*
- *Conclusion 7 – CRIMEvue Replacement Sensitivities Add Uncertainty to How OSP Will Address CRIMEvue Replacement.*
- *Conclusion 8 – Only One CRIMEvue Replacement Option is Viable (COTS).*
- *Conclusion 9 – Internal Development Not an Option.*
- *Conclusion 10 – Financial Analyses Are Not Focused on Cash Flow Gains, Rather on Cost Avoidance*.

The following recommendations are drawn from the analyses throughout the business case:

- *Recommendation 1 – Pursue Competitive Bid to Replace CRIMEvue.*
- *Recommendation 2 – Obtain Dedicated Project Management Expertise for the Project.*
- *Recommendation 3 – Complete Development of Required RFP Documentation.*
- *Recommendation 4 – Require a Support Model That Relies More on Vendor Resources.*
- *Recommendation 5 – Address CRIMEvue Replacement Sensitivities Now.*
- *Recommendation 6 – Begin an Effort to Define Required Operational Metrics.*
- *Recommendation 7 – Address Systems Hosting Risk.*

Planned Results

The marketplace has several options, capabilities, and pricing arrangements, and OSP will solicit those solutions that directly address the problems and opportunities facing the CRIMEvue stakeholder community. This includes ensuring that the replacement system aligns with the several state information initiatives and national standards, and positioning OSP for the efficient provision of this critical public safety information.

Purpose and Background

Purpose of the Business Case

This document presents the business case supporting the replacement of critical public safety information systems operated by OSP. This document examines the background, problems and opportunities, alternatives, and conclusions relative to the proposed investment, to be delivered by the CRIMEvue replacement project.

CRIMEvue Definition

CRIMEvue is the moniker used to describe a series of interrelated systems with a primary purpose of capturing, storing, and reporting criminal records information in Oregon. CRIMEvue is memorialized in Oregon Revised Statute 181.730, which directs OSP to establish LEDS. Generally stated, LEDS shall install and maintain a criminal justice telecommunication and information system for storage and retrieval of criminal justice information submitted by criminal justice agencies in the State of Oregon; function as the control point for access to similar programs operated by other states and the federal government; undertake other projects as are necessary or appropriate for the speedy collection and dissemination of information relating to crime and criminals; provide service as available to all qualified criminal justice agencies and designated agencies; and may adopt rules establishing procedures for the submission, access to, and dissemination of information by LEDS. OSP provides criminal justice information to local, state, and federal law enforcement agencies for enforcement and criminal justice purposes.

CRIMEvue contains some of the most mission-critical systems in the state. They operate 24 hours a day, 7 days a week, 365 days a year, to ensure public safety under the stewardship of OSP. Every hour of every day, these critical systems assist law enforcement and criminal justice entities in Oregon and worldwide in the performance of their duties. These systems support law enforcement actions, aid prosecutors in the preparation and execution of criminal cases, guide court research of criminal history to arrive at appropriate sentencing outcomes, facilitate the recovery of missing persons, help prevent unlawful firearm sales, and tie criminal justice systems together at the state and national levels through the exchange of data.

CRIMEvue Overview

FIGURE I below provides a high-level exemplification, not meant to be a complete accounting, of the major aspects of the CRIMEvue environment with the following dimensions:

- ***Critical Stakeholders*** – CRIMEvue information is accessed by multiple stakeholder agencies at the local, county, regional, state, national, and international levels.
- ***Law Enforcement Message Switch (LEMS)*** – LEMS is a subsystem that routes inquiries among the various information assets associated with CRIMEvue and orchestrates responses back to the requestor. Its purpose is to ensure that transactional responses are well coordinated, logged, and provided expediently and with a high-level of security, availability, and reliability. Although not completely inclusive, also shown in the figure are additional interfaces orchestrated by LEMS to regional law enforcement systems and other state systems, such as the Department of Driver and Motor Vehicles Services (DMV), Oregon Department of Corrections (ODOC), and the Oregon Judicial Department (OJD).
- ***CRIMEvue System*** – Consists of two major subsystems, as follows:
    - *CCH* – CCH is a formal record of arrest, prosecution, court case outcomes, and custodial status for persons associated with crimes committed in the state of Oregon. This information is commonly reported in the form of record of arrest and prosecution (RAP) "RAP sheets."
    - *Hot Files* – Hot files are formal records, or data stores, associated with particular types of common information, typically including, but not limited to, Vehicles, Guns, Persons, and Articles. *Hot files*

is a generic term traditionally derived from the term *stolen*, but it has a contemporary meaning beyond that of simply stolen items (e.g., missing persons).

- ***Partner Systems*** – CRIMEvue interfaces with partner systems of similar construct at the state, national, and international levels for purposes of sharing criminal records information with the larger criminal justice and public safety community.

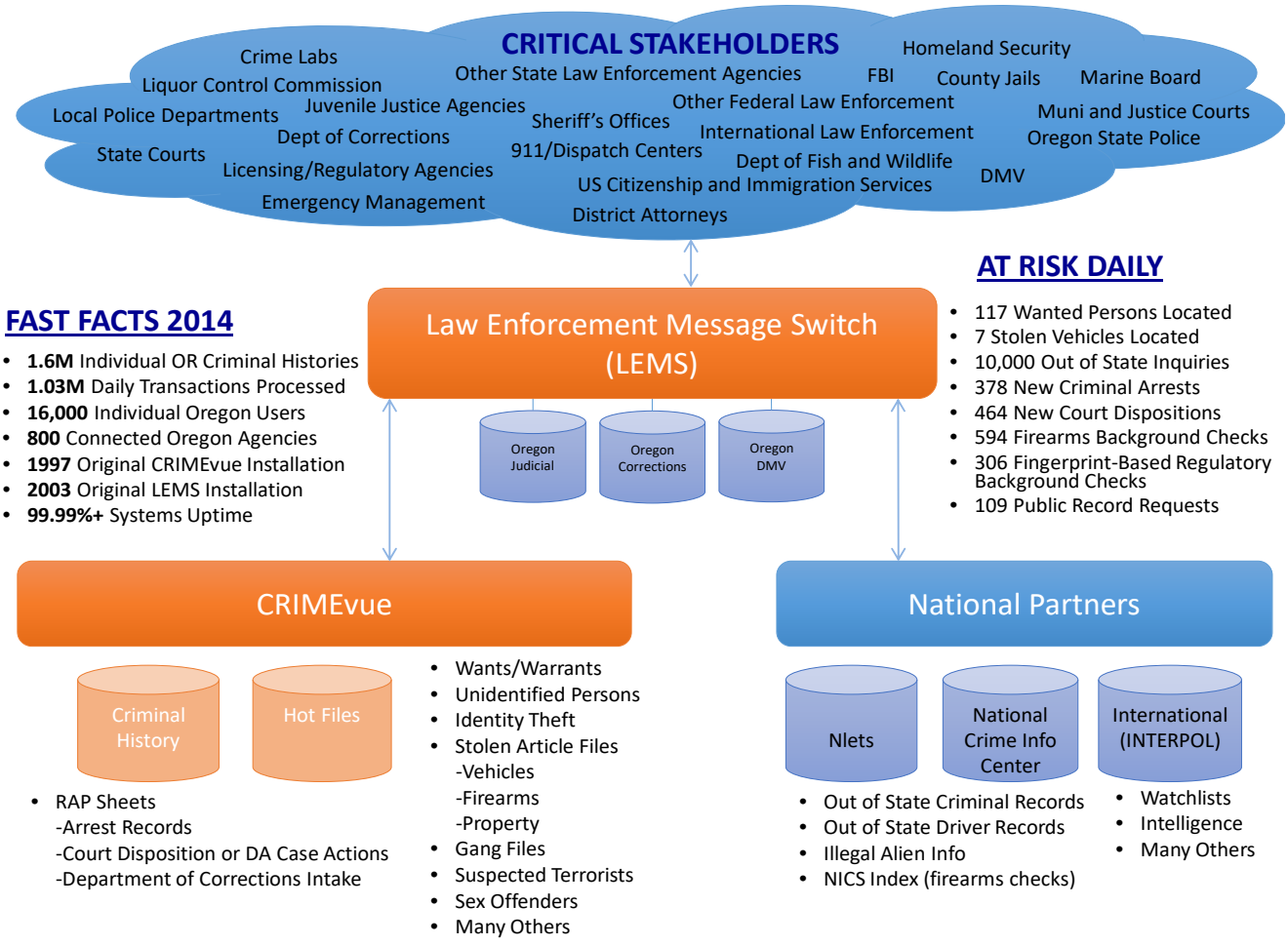


FIGURE I – CRIMEvue Overview

Scope Targeted for Replacement

CRIMEvue is operated and maintained by the LEDS Programs Section of the CJIS Division under the management of the Public Safety Services Bureau at OSP. Additionally, the CRIMEvue technical applications and databases operate independently of LEMS. As such, there are common misconceptions regarding the naming conventions associated with the CRIMEvue replacement project.

The following table addresses scoping specifics for the CRIMEvue replacement project:

	CRIMEvue Replacement Project Scope		
	LEDS Technical Systems		
Systems in Scope for Replacement:	**LEMS**	**CRIMEvue**	
Primary Component(s):	Message Switch	Hot Files	CCH
Original Vendor:	Unisys	Leidos (formerly SAIC)	

TABLE 1 – Business Case Scope and Naming Conventions

Important Notes

- ***Collective Reference to CRIMEvue*** – While the components of the CRIMEvue system are commonly known as "LEDS" throughout the user community, the scope of this project is specifically the message switch (LEMS), and the hot files and CCH systems (CRIMEvue). For purposes of this business case project, all technical systems that are candidates for replacement are collectively referred to as CRIMEvue, and other aspects of OSP operations are not in scope (e.g., LEDS policy).
- ***Inclusion of LEMS*** – While LEMS is more modern, having recently undergone a technical uplift (in 2010), it is considered a candidate for replacement, as some prevailing market offerings bundle all three major aspects of the environment (CCH, hot files, and message switch), with a high level of interdependency. Further, it is commonly held that by the time a vendor could be engaged, the LEMS system will be approximately 7–8 years old and then a likely candidate for replacement.

Business Case Background

For context, it is noted that between November 2014 and February 2015, OSP stakeholders participated a series of facilitated work sessions and individual interviews with a number of CRIMEvue stakeholders to derive the content and outcomes of this business case document. To assist, OSP contracted with a reputable consulting firm, MTG Management Consultants, LLC from Seattle, Washington, a firm well known to OSP from prior criminal information improvement-related projects, for the development of this business case. MTG is a national consultancy that has participated in the specification and procurement of CRIMEvue-related systems in over 25 states nationally, from which it maintains libraries of research materials and related expertise. Additionally, OSP has considered the needs of external CRIMEvue stakeholders throughout the analyses outlined herein. This is exemplified by both informal and formal methods, such as the user survey conducted and exemplified in APPENDIX E.

System Description

The first component of the system, CRIMEvue, is a set of application programs and databases that maintains critical system-to-system interfaces and allows the processing of criminal and civil data collected by criminal justice and authorized non-criminal justice agencies in Oregon. These interfaces and databases serve as an electronic file cabinet for Oregon's criminal justice information, including criminal history data and hot files. CRIMEvue provides critical criminal justice record data in a timely manner. In some instances, it also serves as the means to provide county and statewide data for statistics such as concealed handgun licensing (CHL) activity and fingerprint-verified arrest information. CRIMEvue systems were procured over 18 years ago, becoming fully functional in 1996. OSP has customized CRIMEvue through the years to fit the criminal justice system's needs. CRIMEvue provides data to the public safety community in Oregon, as well as the Federal Bureau of Investigation (FBI), all other states, Canada, Mexico, Puerto Rico, Guam, and INTERPOL.

In addition, many Oregon non-criminal justice agencies utilize CRIMEvue data to perform applicant background checks for regulatory purposes, such as employment and licensing or certification of personnel (either employed

or volunteer) who work with children, seniors, and other vulnerable populations. Other public safety regulatory uses include screening applicants for CHL and firearms purchase background checks.

The second component of the system is the LEMS message switch, which acts as a message processor and maintains interfaces from Oregon's criminal justice agencies, facilitating communications with the other states, territories and partner agencies, such as The International Justice and Public Safety Network (Nlets), the FBI's Interstate Identification Index (III), and the National Crime Information Center (NCIC). LEMS is the means by which Oregon criminal justice agencies communicate and share records with each other locally and nationally. Additionally, the message switch directs criminal justice information traffic to CRIMEvue and to other law enforcement agencies throughout the state, nationally, and globally.

CRIMEvue Current State

The following section describes the current operational state of the CRIMEvue system and subsystems, shows a high-level workflow, describes the OSP support organization, and provides an overview of the stakeholders served.

High Level Criminal History Information Flow

At a high level, there are seven steps involved in creating, processing, and closing a criminal history record. OSP has detailed workflows describing system operations that were completed as part of the CCH Audit project that was completed in 2003.[1] While detailed processing may vary from one agency to another, these overall process points are largely congruent statewide. Numbers following the title of each subsection correspond to their processing point in the figure below:

[1] "*Current State Design*;" April 18, 2003; prepared by MTG Management Consultants LLC for the State of Oregon Judicial Department and State Police.

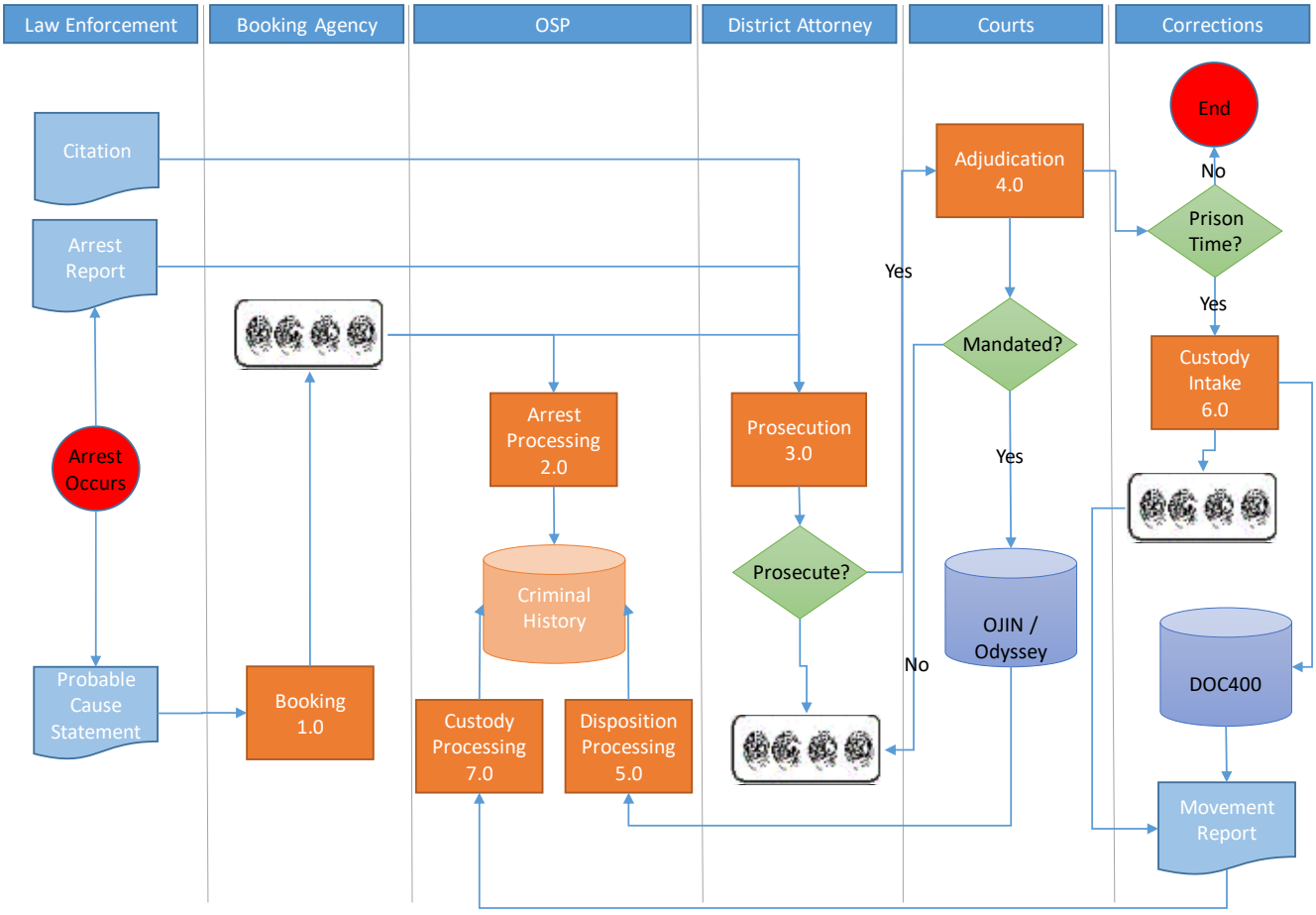


FIGURE II – CCH Workflow Overview

i. Booking – 1.0

An individual criminal history record generally begins with an arrest event. When an individual is arrested, he/she is normally booked at a county jail or police department, where the subject will be fingerprinted. With few exceptions, the county sheriff's office performs the booking procedures at the county jail, but when submitting the arrest cards to the Identification Services Section (ISS) it will use the arresting agency (AA) originating agency identifier (ORI) number. The resulting identification and incident information is then forwarded to ISS, the prosecuting agency, and the local court.

ii. Arrest Processing – 2.0

There are two ways of processing arrest cards within ISS, either manually or automated. The automated process included those agencies that have live scan devices that transmit electronic fingerprint capture information to ISS through a secure electronic method. The manual method includes those agencies without live scan devices that transmit (however, they can print a physical arrest fingerprint card [AFPC]), as well as agencies that mail ink-and-roll AFPCs to ISS.

Automated processing, also known as direct submit, is the means of replacing these traditional (manual) processes, which allows for ISS employees to handle AFPC transactions in an expedient manner. The electronic fingerprint and arrest information is transmitted over a network path to ISS. This electronic file is then processed by the Automated Biometric Identification System (ABIS), where positive identification is established or not, and then the personal and arrest information is transmitted to the CCH file. The direct method reduces the opportunities for manual data entry errors and mistakes in reading handwritten information on the cards.

During the manual process, the fingerprint card is screened by ISS staff for missing information and then scanned into ABIS on flatbed scanners. The remainder of the manual process is the same as that for the automated processing.

Either submittal process requires the fingerprint control number (FPC#) to be passed through the criminal justice system

iii. Prosecution – 3.0

Once the AFPC arrives, the district attorney will make a charging decision based on the arrest report, AFPC, custody sheet, and any other documents pertaining to the case. If a case has an insufficient amount of evidence, a notice will be sent back to the AA requesting more information, and the district attorney will place the case into Pending Further Investigation status. If charges are pursued, a charging instrument in the form of a citation, district attorney "information," or indictment is sent to the courts. If charges are not pursued, then the AFPC is sent to AA with a Decline or Not Filed disposition.

iv. Adjudication – 4.0

The courts designate a case file (locally and in the Oregon Judicial Information Network [OJIN]) based on information given to them from the district attorney. Through adjudication, the events are logged into OJIN, and finally after judgment and sentencing, a closed event will be logged. OJIN is a court case management system that is currently being replaced by a product called Odyssey.

v. Disposition Processing – 5.0

The CCH system receives dispositions two ways, manually or through the OJIN/Odyssey-to-CCH data pass. The OJIN/Odyssey-to-CCH data pass process is the automated system from OJIN/Odyssey to the LEDS CCH. It is in this pass where the dispositions are matched up to the arrest segment from Step 2 of the process – Arrest Processing through the FPC#. Once the case is adjudicated, if the offense is a felony or mandated misdemeanor, then the disposition is sent through OJIN or eCourt, which interfaces with the CCH. Courts may choose to send all misdemeanors, not just the mandated ones, through the data pass.

The manual process is for those that report through OJIN (municipal court-based matters and misdemeanors) and those courts not choosing to send the non-mandated misdemeanors through OJIN/Odyssey. ISS will receive these dispositions through the mail from the district attorney's office. CCH employees will manually link the arrest segment to the disposition. If the FPC# is available, this process is quicker.

vi. Custody Intake – 6.0

Once the courts have disposed of the offender, if a sentence of prison time is imposed, the offender is taken to the correction intake center. He/she is fingerprinted and a mug shot is taken. If it is requested, DNA is taken also. Then a prison term analyst (PTA) computes and processes sentence structure and documentation for the inmate. That AFPC with the prison term length is sent to ISS (with no FPC#).

vii. Custody Processing – 7.0

The AFPC from the corrections intake facility comes into ISS, and a CCH staff member will enter the intake into the CCH. After intake into the corrections system, ODOC sends teletype messages to ISS. CCH staff members manually enter the custody segment into the CCH system.

Once an arrest takes place, the above seven steps lead to the initiation of a record in the CCH system. The CCH will thereafter reflect all these steps in the RAP sheet for the offender.

High Level Hot File Information Workflow

FIGURE III below presents the hot file workflow overview. Hot files are formal records, or data stores, associated with particular types of common information.

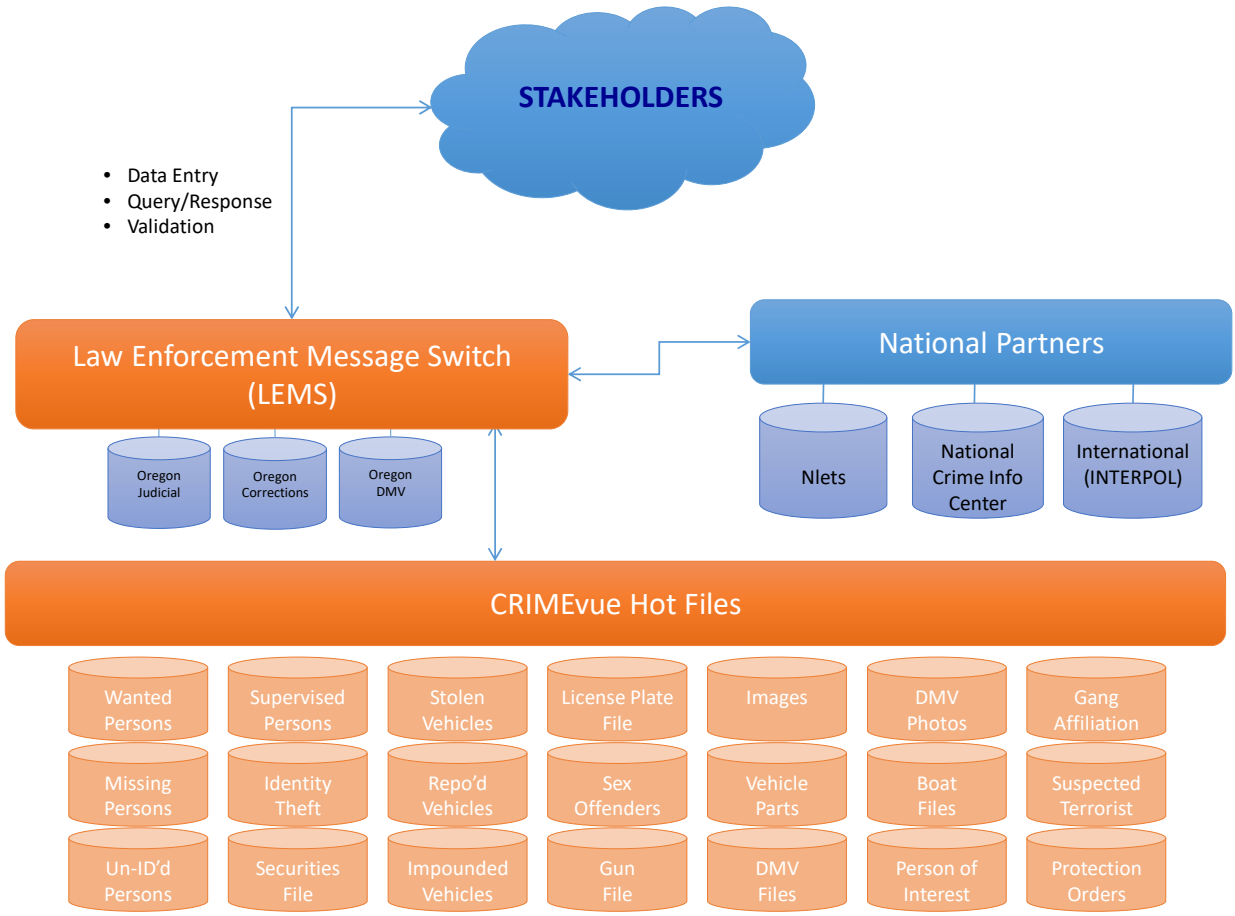


FIGURE III – Hot File Workflow Overview

Oregon stakeholders can contribute information and query hot file data both within the state and nationally, per policy. One of the key aspects of hot file information involves the periodic validation of certain high-risk hot file information to ensure currency and accuracy (i.e., wanted persons). Additionally, to maintain the ability to interact with hot file information stored at the FBI's NCIC, OSP must maintain compliance with several FBI policies as follows:

- ***Audit*** – OSP must cooperate with state and federal auditors, who will confirm compliance with NCIC policies and regulations.
- ***Dissemination*** – OSP must have a policy in place that follows federal regulations (28 CFR Part 20) and state law on the dissemination of data.
- ***Hit Confirmation*** – Any record retrieved via NCIC must be confirmed with the submitting agency to make certain the data are accurate and up-to-date.
- ***Logging*** – OSP must have a procedure that documents all access to and use of equipment and systems connected to NCIC.
- ***Quality Assurance*** – OSP must have procedures and reviews in place to make certain that data are accurately and completely entered into NCIC.

- ***Screening* (pre-employment)** – Personnel with access to systems or buildings with NCIC connections must be subjected to a state of residency and federal fingerprint-based background check. A felony record prohibits access unless a waiver is granted by the CJIS Systems Officer (CSO). Any other type of record requires a review by the CSO before access is granted.
- ***Security*** – OSP must have policies and procedures in place that prevent unauthorized access and restrict physical access to equipment and system to authorized organizations and personnel.
- ***Timeliness*** – Records entered into NCIC must be accurate and up-to-date. Originating agencies must be available 24 hours per day for hit confirmation or have a "holder of the record" agreement with an organization that is available 24 hours per day for hit confirmation.
- ***Training*** – Personnel must be trained on the appropriate use of the system and the security procedures that must be followed.
- ***Use of the System*** – Policies and procedures to notify personnel of uses that comply with regulations and laws must be in place and include penalties for inappropriate use.
- ***Validation*** – Policies and procedures to make certain data entered into NCIC are accurate and up to date must be in place and enforced.

Core Services and Support Organizations

The OSP CJIS Division is responsible for the access to and exchange of Oregon's criminal justice information. The primary systems that support the storage of and access to this information are the CRIMEvue database and LEMS, which combine to make up the LEDS environment. The data contained and disseminated by these systems plays a critical role in helping to ensure the safety of the citizens of Oregon. It is also crucial that the data be available to law enforcement agencies on a 24/7 basis. The data maintained by the CJIS Division is regularly accessed and utilized by criminal justice agencies throughout the world. In addition, statutorily designated non-criminal justice agencies access the data for a variety of reasons, including protecting vulnerable populations, licensing, and firearms purchase screening. The two primary organizational elements within OSP responsible for the operations and technical support of the CRIMEvue environment are the CJIS Division and the Information Technology and Technology Division, as follows:

CJIS Division

Within the CJIS Division, there are a number of units that handle the day-to-day business operations of the CRIMEvue programs. Programs are supported by applications and network support staff from the OSP IT Division as outlined below:

- ***ABIS Unit*** – The ABIS unit provides fingerprint identification services using ABIS – a computer system used to electronically search, retrieve, and maintain fingerprint and palm-print image files. Criminal AFPCs received from various agencies throughout the state are analyzed to establish positive identification for the CCH record-keeping function by utilizing ABIS. The Oregon ABIS database and master fingerprint card file are the foundation for all criminal history records as well as for searching forensic fingerprint evidence collected at crime scenes. ABIS allows these "unknown" and often partial fingerprints to be searched against fingerprint records in order to provide the forensic examiner with a list of suspects to review. This crime fighting tool saves thousands of man-hours in searching the millions of fingerprints on file through automation. The ABIS unit also provides the following services: master card file maintenance, court room testimony regarding identifications made in support of law enforcement and criminal justice agencies, as well as thumbprint comparisons of potential purchasers in support of the Firearms Instant Check function as needed.
    - *Western Identification Network (WIN)* – OSP is a member of WIN, which consists of eight western "central site" states sharing one electronic biometric database for use in processing criminal and applicant fingerprint and palm cards through positive identification. The participating central site

states of WIN are Oregon, Alaska, Idaho, Montana, Nevada, Utah, Washington, and Wyoming. WIN member states also have access to ABIS in the state of California, which serves as an Interface Member to WIN.

- ***Criminal History Unit*** – The CCH Records unit is responsible for maintaining complete and accurate CCH records. These records are accessed by criminal justice and authorized non-criminal justice agencies through LEDS. Each CCH record is established based on fingerprints and includes arrests reported from throughout the state, the corresponding court disposition, and custody information received from the Department of Corrections. Law enforcement agencies are required by statute to submit a fingerprint card for all felony arrests as well as all misdemeanor arrests involving sex or drugs. The CCH Records unit also performs the operational and administrative functions necessary to maintain Oregon's participation in the III and National Fingerprint File (NFF) programs administered through the FBI. These national programs provide for the interstate exchange of criminal history record information.
- ***Regulatory Unit*** – The Regulatory Unit provides fingerprint-based applicant background checks for agencies having authority through Oregon statute, Federal law, or by Governor's Executive Order to conduct such checks for regulatory purposes. The various types of background checks allowed by law include licensing, certification, permits, and employment. In addition, the unit provides responses to mailed-in and walk-in requests from individuals for copies of their own criminal history and/or police clearance. Both state and nationwide FBI checks are conducted where applicable. Background checks are a fee-for-service function: $28.00 for non-retained and $27.00 for retained cards. A separate FBI fee is charged for any card that is submitted to FBI for completing the national background check: $14.75 ($13.50 for volunteers).
    - *Clearinghouse Unit (CHU)* – This function involves fingerprint-based criminal background checks on employees and volunteers of a business or organization not regulated by a state agency. To qualify for this process, a business or organization must provide care or placement services itself, or license/certify others to provide care or placement services for children (under 18 years of age), elderly (65 years or older), or dependent persons who are mentally, physically, or medically disabled due to alcohol or drug dependence. The unit conducts fingerprint-based state and national (FBI) background checks and makes a fitness determination based on criteria that have been established and provided to CJIS by the requesting business/organization. This is a fee-for-service function; the cost for an Oregon check is $52; the FBI fee is $14.75 ($13.50 for volunteers). By statute, the fee for service (both state and FBI) to specific qualifying organizations must be waived by OSP.
    - *Concealed Handgun Licensing (CHL)* - Fingerprint-based background check service is provided as required by law and in support of the sheriff's process for licensing persons to carry a concealed firearm. All licenses are granted or denied by each county sheriff for residents of that county. The CJIS fee for this service is $15. An applicable FBI fee is charged should a county wish to conduct a nationwide fingerprint check.
    - The Open Record service, covered by Oregon law, provides for public inquiries regarding Oregon criminal history records. Searches are performed on name and date-of-birth criteria. Requests are submitted in writing or electronically through a Web site. There is a $10.00 fee per request, and persons wishing to utilize this service on a continual or frequent basis can establish an account with the service. Records provided by this section contain limited criminal offender information and for the state of Oregon only. As required by statute, OSP may only report the following: all records of convictions and any record of arrests less than 1 year old in which there has been no acquittal or dismissal. The subject of the inquiry must be notified of the request and who is making the request. The unit will deliver the qualifying Oregon criminal offender information to the requestor 14 days after sending notice to the individual. Because these checks are name-only and not confirmed by fingerprints, the individual has 14 days by law to contact OSP regarding a record that is either not complete or does not belong to the individual.

    - The Copy of Own Record service allows a person full access to obtain his or her own Oregon criminal history and is available only through positive fingerprint identification. A State of Oregon criminal history record may only be obtained through the OSP CJIS Division. CJIS can also provide assistance to persons wishing to obtain a copy of their nationwide criminal history via the FBI.
- ***Firearms Instant Check System (FICS)*** – This unit provides services to all federally licensed firearms dealers in the state of Oregon by conducting FICS background checks on persons attempting to purchase a firearm, as required by law. Oregon is a point-of-contact state for the National Instant Background Check System (NICS) and therefore is responsible to conduct, simultaneously, both state and national firearms checks. Background checks are also performed for all firearm transfers that take place at a gun show and for private citizens upon request. A toll-free telephone number for this service is required by law, and customers have the option to make their request through an online system. The FICS database is exempt from public inspection. Funding for this unit is based on a user fee of $10.00 (or a reduced fee of $5.00) per transaction. The Firearms Unit is responsible for processing stolen gun checks against the stolen firearm files in state and local databases for licensed gun dealers and for private citizens requesting this service. There is no fee for processing a stolen gun check. The unit is required to be operational 7 days a week from 8 am to 10 pm, except Thanksgiving and Christmas.
- ***LEDS Audits Unit*** – This unit provides assistance to user agencies by conducting quality assurance (QA) audits as well as serving as a resource to agencies involved in system misuse investigations. The LEDS audit satisfies both state and FBI requirements for review of system use of every agency having access to LEDS and NCIC on a triennial basis. Roughly 180 agencies are audited each year. Agencies are audited on the accuracy and completeness of their records and the proper use of not only the LEDS and NCIC systems, but also of all associated criminal justice information, such as DMV records, mental health records, and records from other states. The LEDS Audits unit investigates reported allegations of system misuse and works closely with the LEDS training unit to identify areas where additional training may be beneficial in order to correct misunderstandings or deficiencies in system use.
- ***LEDS Training Unit*** – This unit provides instruction on the proper entry, access, and use of LEDS, NCIC, and Nlets. The unit also works closely with the CJIS Security Officer to provide instruction on CJIS System Security. Training is provided in several formats: 1) Individual training via the LEDS Website, 2) Classroom training at various locations throughout the state, and 3) Statewide LEDS User Conference. The LEDS Training Unit maintains training records for every person in the state who is certified to access LEDS. The unit ensures that agency personnel are kept current in their training and complete regular recertification in order to meet both state and FBI requirements.
- ***Oregon Uniform Crime Reporting (OUCR) Unit*** – Oregon law enforcement agencies submit crime statistics data to the OUCR program for both state and federal reporting purposes. In addition to criminal offenses and arrests, the program also collects information for special crime reports such as bias (hate) crimes, domestic violence, and homicides. The program processes this data into a useable form for use by numerous other programs within the state, as well as for programs in other states. The OUCR program produces an extract of the crime statistics data using federal data requirements for the National Incident-Based Reporting System (NIBRS) and submits it to the FBI for inclusion into federal crime statistics. The OUCR program is the sole source of Oregon crime statistics data for the National Uniform Crime Reporting (UCR) program. Additionally the OUCR program is the primary conduit for providing data from Oregon law enforcement agencies to the FBI's National Data Exchange (N-DEx). N-DEx makes it possible for law enforcement to access and exchange local crime data nationally for criminal investigatory purposes.
    - The OUCR program provides statistical reports for a varied number of entities such as law enforcement agencies, the state legislature, schools and colleges, and the news media. OUCR information is relied upon by many state and local agencies to apply for federal grant funding.
- ***NICS Act Record Improvement Program (NARIP) Unit*** – This unit is funded by a federal grant program. The unit is responsible for improving the records utilized by NICS, such as criminal history records, records of felony convictions, warrants, records of protective orders, convictions for misdemeanors involving domestic violence and stalking, and records of mental health adjudications. These records are used by

NICS for the purpose of identifying individuals who are disqualified from possessing or receiving a firearm under federal law, while helping to reduce delays for law-abiding gun purchasers.

- ***CJIS Security*** – The CJIS Information Security Officer provides information and technical security guidance to user agencies and conducts technical security audits to ensure that user site equipment, network, and connectivity practices comply with state and FBI CJIS security requirements. Proactive CJIS security measures are essential in order to maintain critical data and system integrity in support of public and officer safety.

OSP IT Division

OSP IT personnel manage and maintain the OSP information and voice/data telecommunication system resources. They develop and maintain applications and information systems, provide administration for OSP computer systems, support OSP system users, and administer the various computer and telecommunications networks in collaboration with Enterprise Technology Services (ETS). Given the sensitive nature of criminal justice data, maintaining system security is a priority for OSP. A significant portion of IT personnel effort revolves around the maintenance and development of the entire CRIMEvue environment. OSP relies almost solely on internal resources to support the CRIMEvue environment.

User Support Trends

It is not possible to fully understand the extent of CRIMEvue user support requests and trends. Issues related to user interface problems are generally referred to the appropriate third-party vendor, and there are mixed perspectives on the responsiveness for internal OSP user requests (especially in regards to requested reports). Support activities for the OSP IT division are reported as follows:

Support Request Type	2014 Requests
ORI Changes	1,235
New Web User Requests	221
Device Configuration	3,944
Customer Accounts Configurations	340
Regional System Tech Support	55
Investigative Forensic Search Requests	40

Population Served

There are over 25,000 devices registered to access CRIMEvue data in Oregon from over 800 criminal justice and non-criminal justice-related agencies. Through agreements with national and federal partners, CRIMEvue information is accessed by many hundreds of thousands of agencies. The table below exemplifies the vast diversity of stakeholders that CRIMEvue serves. The roles of the example stakeholders below are discussed following the table.

Stakeholder Example	CRIMEvue Information Role		
	Consume	Contribute	Regulate
Civic			
Public	✓		
Employers	✓		
Justice			
State Courts	✓	✓	✓
District Attorneys	✓	✓	
Juvenile Justice Agencies	✓	✓	
Municipal and Justice Courts	✓	✓	
Law Enforcement			
Local Police Departments	✓	✓	
911/Dispatch Centers	✓	✓	
Sheriff's Offices	✓	✓	
OSP	✓	✓	✓
Crime Labs	✓	✓	
Department of Corrections	✓	✓	
Emergency Management	✓		
County Jails	✓	✓	
Other State Law Enforcement Agencies	✓	✓	
Federal			
Federal Bureau of Investigation	✓		✓
International Law Enforcement	✓		
U.S. Citizenship and Immigration Services	✓		
Other State/Federal Law Enforcement	✓		
Regulatory			
Criminal Justice Commission	✓		✓
Department of Motor Vehicles	✓	✓	
Department of Fish and Wildlife	✓		
Oregon State Legislature	✓		✓
Marine Board	✓		
Licensing/Regulatory Agencies	✓		
Liquor Control Commission	✓		

TABLE 2 – CRIMEvue Stakeholders Served

Definitions

- *Consume* – Indicates entities that regularly request information from CRIMEvue for purposes of conducting their daily work.
- *Contribute* – Indicates entities that provide information to CRIMEvue so that it is made available to other stakeholders in the CRIMEvue community.

- *Regulate* – Indicates entities that influence the purpose of CRIMEvue; how CRIMEvue information is captured, stored, and shared; and how CRIMEvue information is used.

Environment

This section describes the functions and business objectives that are met by the system.

Importance of CRIMEvue Information

CRIMEvue information is used in the daily protection of the public and law enforcement. Information is used to confirm the identity of persons, in determining eligibility for civil rights and privileges, and in determining jail/prison sentence terms. If they are in error or unavailable, CRIMEvue records can:

- Affect law enforcement officer safety during routine encounters.
- Expose criminals to peer states and countries (Homeland Security).
- Allow criminals access to vulnerable populations (child care, nursing homes, etc.).
- Allow prohibited persons access to firearms permits.
- Delay lawful purchases of firearms.
- Allow repeat criminals to have lesser sentences and incorrectly calculated jail times.

The CRIMEvue environment orchestrates the collection, storage, and dissemination of this critical information in Oregon and with interstate, intrastate, national, and international criminal justice information resources. In all reality, lives are at risk without access to this critical information.

Operational Standards

OSP personnel must ensure that CRIMEvue systems and operations conform to many common national standards, including:

- ***NCIC*** – The FBI maintains a national database of crime related information under its CJIS division. This data is interlinked with similar systems in each state, which are managed by a set of governing standards known as NCIC 2000.
- ***FBI CJIS Security Policy*** – The FBI maintains a CJIS Security Policy containing information security requirements, guidelines, and agreements reflecting the will of law enforcement and criminal justice agencies for protecting the sources, transmission, storage, and generation of criminal justice information. The current iteration of this policy is Version 5.4.
- ***Electronic Biometric Transmission Specification (EBTS)*** – The FBI maintains a set of standards governing how biometric information is transmitted and stored. The WIN enforces these standards through the shared biometric system, which relies on data collected from CRIMEvue. The current version of the FBI EBTS is 10.0.1.
- ***III*** – III is an "index-pointer" system for the interstate and federal/state exchange of criminal history record information. Through the III system, the FBI makes available an index listing the names of individuals on whom it maintains criminal history record information. An agency seeking information on a specific individual will submit his or her name to the FBI. The FBI will match the name against the index and then "point" the information request to the database (either state or federal) where the requested information is maintained. To be an III participant, OSP must maintain a system capable of interacting with the FBI and other states through the NCIC 2000 standards.
- ***Nlets*** – Nlets provides a robust telecommunications service allowing law enforcement agencies in the United States access to information stored in other state and international databases. This includes criminal and driver data, among others. Participation in Nlets requires adhering to certain Nlets-specific security and access requirements.

Additionally, OSP strives to apply these standards commonly through the enforcement of business rules, which also requires compliance with technology standards.

Informational Metrics

Information managed by CRIMEvue is of critical importance to stakeholders in Oregon and throughout the nation and world. Hundreds of millions of transactions pass through the CRIMEvue environment annually, with 32 million of those resulting in direct impact on CRIMEvue data. Table 3 adds some dimension insights into the CRIMEvue environment for reference:

Ref.	Sample Informational Attribute	Measure
CRIMEvue User Agency and Registered Terminal Accounts in Oregon		
1	Oregon Agencies Accessing CRIMEvue for Criminal Justice Purposes	720
2	Oregon Agencies Accessing CRIMEvue for Non-Criminal Justice Purposes (Regulatory)	89
3	Number of Registered Terminals for Accessing CRIMEvue Information for Criminal Justice Purposes In Oregon	24,754
4	Number of Registered Terminals for Accessing CRIMEvue Information for Non-Criminal Justice Purposes In Oregon (Regulatory)	616
CRIMEvue Information Volumes (2013) – CCH		
5	Adults With Arrest Records	1.7 M
6	Juveniles With Arrest Records	5,147
7	Biometrically Identified Adults	1.6 M
8	Biometrically Identified Criminal Adults	1.08 M
9	Average Annual CRIMEvue Transactions (2012–2014)	330 M
10	Average Annual CRIMEvue Transactions Updating Records (2012–2014)	32 M
CRIMEvue Information Volumes (2013) – Hot Files		
11	Wanted Persons	93,484
12	Missing Persons	977
13	Stolen Articles (Property)	27,496
14	Stolen Guns	50,787
15	Stolen Vehicles	19,974
16	Stolen Boats	248
CRIMEvue Database Sizing (2013)		
17	CCH Data (Person, Arrests, Court Dispositions, Custodial Status)	17.6 Gb
18	CCH Log Data (Records View, Add, Change, Delete)	126.95 Gb

TABLE 3 – CRIMEvue Informational Metrics

How Users Access CRIMEvue

Over 25,000 stakeholders in Oregon access CRIMEvue in one of two common methods as shown in FIGURE IV below:

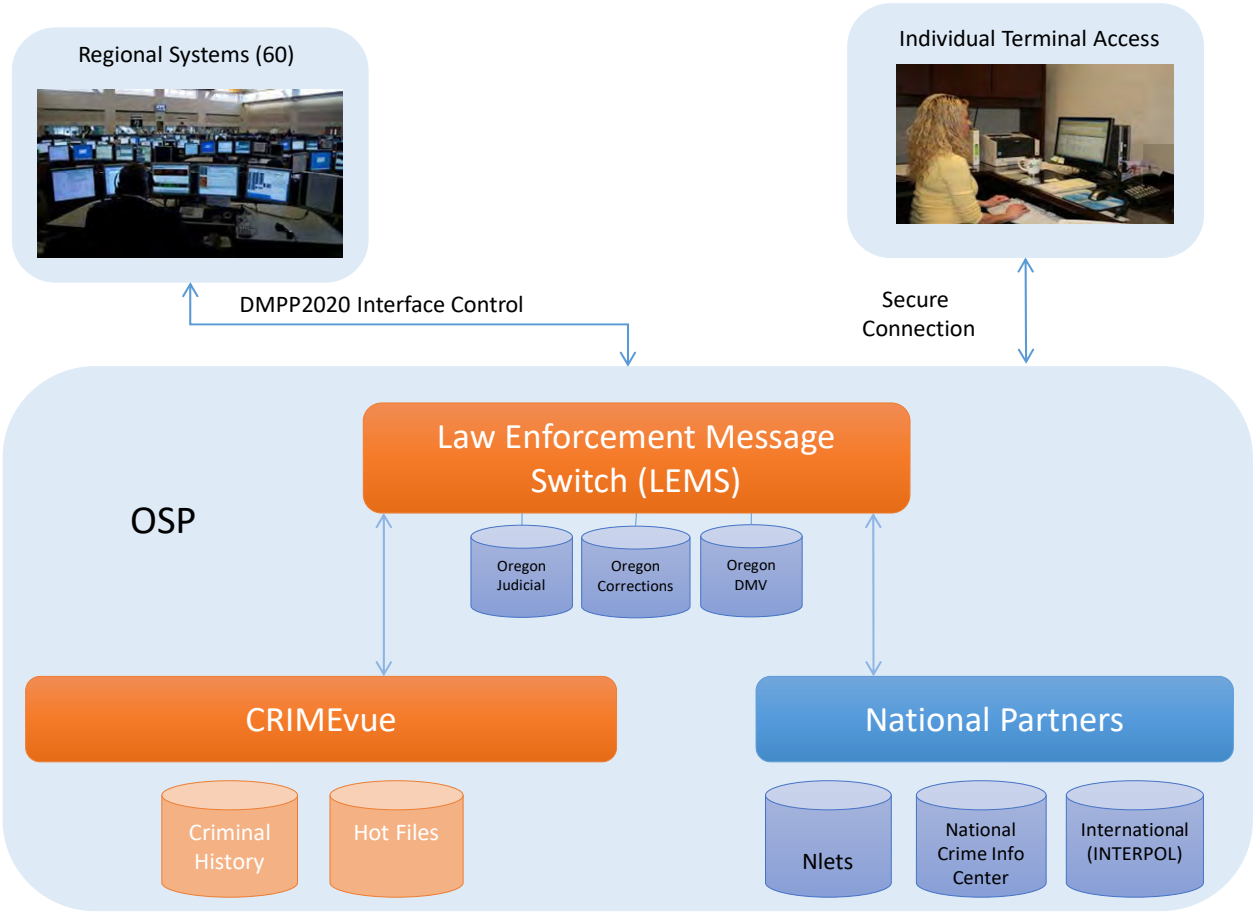


FIGURE IV – CRIMEvue User Access Overview

- ***Regional Systems Access*** – Regional systems often include agencies that provide access to a number of criminal justice-related systems, including local 911 dispatch centers not operated by OSP. These larger systems often access CRIMEvue from within their own IT support systems, such as CAD systems and police records management systems (RMSs). There are approximately 60 regional systems throughout Oregon, and their access to CRIMEvue is managed through the DMPP2020 interface control provided by OSP. Vendors known to take advantage of the DMPP2020 standard include VersaTerm, EIS, Tyler Technology, Hitech, New World, Sungard, Tiburon, Voyager, DataMaxx, Bio-Key, VisionAir, Sun Ridge, and Intergraph.
- ***Individual Terminal Access*** – Access to CRIMEvue can also be allowed through third-party applications on a per-user basis. In this arrangement, a vendor provides software to an authorized user for purposes of accessing CRIMEvue for a fee, and OSP grants user access per OSP policy. OSP itself uses this arrangement for access to CRIMEvue, and it does not offer a CRIMEvue graphical user interface (GUI) without using third-party software. Vendors commonly providing individual user access to CRIMEvue are KRP Data Systems and Tailored Solutions.

Problem and Opportunity Definition

Introduction

This section identifies the business reasons—the problems that served as a catalyst to initiate the project. As a result of the many interviews, steering committee sessions, background information reviews, and measurements and assessments, three primary problem categories were identified as driving the need for system replacement, these are:

- ***Degraded Technical Operational Capability*** – The software systems supporting CRIMEvue are aged, and OSP cannot retain the talent necessary to operate the system in the near and long term. As such, business processes reliant on CRIMEvue cannot easily change, alter, or improve to meet management or operational goals, including those related to transformation, security, green IT, and business continuity. This condition puts into jeopardy every aspect of required service provision dictated by various laws, rules, and goals.
- ***Low Fidelity Information Tracking, Sharing, and Accessibility*** – CRIMEvue information forms the basis of many critical business decisions in Oregon and beyond. This includes decisions relative to citizen and officer safety, denial of civil liberties, and criminal sentencing determinations. Data quality assessments show low level of confidence in the data quality supporting these decisions, and the access to the available information is largely non-standardized and controlled by third-party vendors that profit from providing access to OSP information for law enforcement and civil purposes. Additionally, the tool sets needed to interact more effectively with business partners, to promote access to justice and efficiencies in data sharing for purposes of improving services and operations, are not in place and largely not yet conceived, due to the required focus on legacy service provision.
- ***Absence of Business Operational Information and Data-Mining*** – CRIMEvue does not readily provide the basic management metrics necessary to govern criminal records management processes. There is no trending information relative to daily operations that would allow OSP management to identify and plan for operational and technical improvements. Additionally, the lack of information for objective measurements does not allow OSP to recognize business conditions in the overall justice community that could be used to affect policy or to forecast the impacts of such conditions.

The following sections define the rules, plans, and other sources that were examined and where these issues and problems manifested.

- Enabling Federal Authority.
- Oregon Revised Statutes (ORSs).
- Oregon Administrative Rules (OARs).
- Governor's 10-Year Plan.
- Defined OSP CJIS Division Purpose.
- 2012 OSP IT Plan.
- 2012 FBI CJIS Integrated Automated Fingerprint Identification System (AFIS; IAFIS) Audit.
- Assessments:
    - 2015 CRIMEvue User Survey.
    - 2014 Challenges Assessment.
    - 2003 CCH Audit Results.

Measurement Legend

The subsections that follow assess the current state of the CRIMEvue environment based on its ability to meet the corresponding measurement criteria. For ease of reference, the following nomenclature is used throughout assessments:

Indicator	Measurement Description
●	CRIMEvue largely supports the intent of the measurement.
◖	CRIMEvue somewhat supports the intent of the measurement.
○	CRIMEvue does not support the intent of the measurement.
N/A	This area not applicable.

TABLE 4 – CRIMEvue Measurement Legend

Enabling Federal Authority

The Attorney General of the United States has the authority to collect and maintain criminal history information. This authority is provided by 28 United States Code (U.S.C.), § 534, which states that the Attorney General shall "acquire, collect, classify, and preserve identification, criminal identification, crime, and other records." The law also establishes that the Attorney General share this information with the "Federal Government, the States, cities, and penal institutions." States are not required by federal law to provide criminal history information. However, all states provide this information voluntarily in order to have access to criminal history data on people who have lived in other states.2 In Oregon, OSP's CJIS Division is responsible for the collection, maintenance, and exchange of criminal history data.

Oregon Revised Statutes and Oregon Administrative Rules

Several ORSs and OARs provide guidance regarding how OSP maintains criminal history data.

#	ORS/OAR	Ability to Meet Purpose	Reasoning
1	ORS 181.066 – Mandates fingerprint-based criminal history repository.	●	The statute cites OSP as responsible for the collection and distribution of criminal identification information. The current systems in place are able to provide this.
2	ORS 181.730 – Establishes LEDS.	◖	OSP has complied with this ORS for some time. However, as CRIMEvue's current condition continues to deteriorate as explained in the core business problems section above, the following aspects of business operations are in jeopardy as it relates to this ORS: • ***Absence of Business Operational Information and Data-Mining:*** Inefficiency of court disposition record collection, as even data that is electronically submitted by the courts must be manipulated manually in order to be useable by CRIMEvue.

[2] http://www.fbi.gov/foia/privacy-impact-assessments/firs-iafis

#	ORS/OAR	Ability to Meet Purpose	Reasoning
			• ***Degraded Technical Operational Capability*:** Limits to availability of criminal information for law enforcement officer queries while in the field. • ***Absence of Business Operational Information and Data-Mining:*** Inability to focus on projects that speed the delivery of criminal information, due to an internal focus on maintaining basic availability of the aged system. • ***Absence of Business Operational Information and Data-Mining:*** Lack of Internal resources focusing on establishing rules and procedures that expedite criminal information and increased data quality to the repository.
3	ORS 181.715 - Directs OSP's Criminal Justice Information Standards Program.	**N/A**	After evaluation of how this ORS compares to the current operational state of the CRIMEvue application, it is determined that the CRIMEvue environment does not impact the existence of the Criminal Justice Information Standards Program.
4	ORS 181.725 – Establishes Criminal Justice Information Standards Advisory Board.	**N/A**	After evaluation of how this ORS compares to the current operational state of the CRIMEvue application, it is determined that the environment does not impact the existence of the Criminal Justice Information Standards Advisory Board.
5	ORS 137 – Addresses how CCH relates to sentencing.	**N/A**	After evaluation of how this ORS compares to the current operational state of the CRIMEvue application, it is determined that ORS 137 addresses items that are procedural in nature, and are not impacted by the current state of CRIMEvue.
6	ORS 166 – Addresses CCH and firearms.	**N/A**	After evaluation of how this ORS compares to the current operational state of the CRIMEvue application, it is determined that ORS 166 addresses items that are procedural in nature, and are not impacted by the current state of CRIMEvue.
7	OAR 257-010 – Prescribes policies for the Oregon Criminal Offender Information System.	◖	After evaluation of the criminal information policies on the OAR, it has been determined that CRIMEvue jeopardizes the ability of OSP to effectively carry out the procedural rules described therein, including the following examples: • ***Degraded Technical Operational Capability****: 275-010-0020 (5) – Information to Qualified Criminal Justice and Designated Agencies.* The ability of CRIMEvue to provide useful data to justice partners, beyond responses to criminal history queries, is significantly limited. • ***Degraded Technical Operational Capability****: 275-010-0020 (7) – Development of Operational Procedures.* CRIMEvue prevents business processes from easily being changed or improved to meet operational goals. • ***Low Fidelity Information Tracking, Sharing, and Accessibility****: 275-010-0055 – Firearm Instant Check System.* The lack of access to complete CRIMEvue data impacts the ability of the state to identify individuals who are disqualified from possessing a firearm. This lack of accurate checks and balances to verify criminal history data could

#	ORS/OAR	Ability to Meet Purpose	Reasoning
			compromise the safety of law enforcement officers and the citizens of Oregon.
8	OAR 257-015 – Prescribes policies and procedures for LEDS.	◖	After evaluation of the LEDS policies in the OAR, it has been determined that CRIMEvue jeopardizes the ability of OSP to carry out the procedural rules described therein, including the following examples: • ***Absence of Business Operational Information and Data-Mining:*** *275-015-0040 (4) - Assist and train criminal justice agencies in the development of information from LEDS and associated systems for use in criminal investigations.* Due to CRIMEvue's lack of operational capability, OSP is unable to provide end users with advanced uses of criminal history data. • ***Absence of Business Operational Information and Data-Mining:*** *275-010-0040 (9) – Operate a program of record validation, quality control, and audits to ensure that records entered into LEDS and NCIC files by user agencies are kept accurate and complete and that compliance with state and national standards is maintained*. CRIMEvue prevents the ability to provide basic statistical data and operational metrics for auditing and analysis.

TABLE 5 – Assessment of CRIMEvue Against ORS/OAR

Governor's 10-Year Plan

In 2012, the Office of the Chief Operating Officer (COO) led the development of a comprehensive 10-year plan for Oregon. The plan required numerous agencies to work together to develop polices and budget decisions across six primary areas.[3] One of the six areas included in the plan is Public Safety. Many of the Public Safety aspects of the 10-year plan directly impact CJIS Division programs. The Public Safety plan identified five specific strategies for the future safety policy vision.[4] The Public Safety plan was updated in 2014, and three strategies were identified. The table below provides an overview of the correlation between the plans and the ability of CRIMEvue to meet the safety strategies that have been identified.

[3] http://www.oregon.gov/10yearplan/pages/index.aspx
[4] http://www.oregon.gov/COO/Ten/docs/SafetyTemplate.pdf

#	Governor's Safety Strategies (10-year plan)	Ability to Meet Purpose	Reasoning
2012 Plan			
1	Increase Investment in Communities	○	OSP's goals for this safety strategy are for CRIMEvue data to enable the state to make informed criminal justice policy decisions based on data, and protect vulnerable populations, such as children, from being put in an unsafe environment. OSP is not able to meet these goals, because of the following issues: • ***Low Fidelity Information Tracking, Sharing, and Accessibility:*** Complete criminal offender records are not fully available, because systems to efficiently collect data from justice agencies are not in place. • ***Absence of Business Operational Information and Data-Mining***: While much data exists in CRIMEvue databases, extracting pertinent data for analysis is a laborious process that requires specialized expertise. • ***Absence of Business Operational Information and Data-Mining:*** Data cannot be released to some entities because secure data (e.g., personally identifiable data) cannot be extracted. As a result, complete data for study by policy analysts cannot be provided.
2	Implement Social and Justice Reinvestment	◖	OSP's goals for this safety strategy are to provide background check services to more organizations representing at-risk populations and maximize the time officers spend on patrol by minimizing the amount of time spent accessing criminal information. OSP can only partially meet these goals, because of the following issues: • Expanding applicant background checks is a matter of policy not influenced by the capabilities of the CRIMEvue. • ***Absence of Business Operational Information and Data-Mining:*** Currently there are no OSP efforts aimed at increasing ease of access to CRIMEvue information, primarily due to the reasons provided in the box above contributing to the difficulty in delivering the pertinent data.
3	Ensure the Safety of People	○	OSP's goals for this safety strategy are to ensure uninterrupted access to criminal justice telecommunications systems and provide background checks for high-risk employment, such as hazardous material transporters. OSP cannot meet these goals, because of the following issue: • ***Degraded Technical Operational Capability:*** OSP's inability to quickly activate a backup CRIMEvue operations site or provide continuity of operations creates a severe risk of interrupting full access to criminal information, including information used for background checks.

#	Governor's Safety Strategies (10-year plan)	Ability to Meet Purpose	Reasoning
4	Improve Citizen Access to Justice/Ability to Exercise Their Rights	○	OSP's goal for this safety strategy is not germane to the strategy. While the Governor's intent is to increase the public's access to justice processes, OSP's approach is to improve collection and reporting of court dispositions. This approach does not necessarily increase citizens' access to justice.
5	Provide Education, Advocacy, and Regulatory Efforts	○	OSP's goal for this strategy is to protect citizens via background checks on employees in positions of trust, as well as evaluations of the effectiveness of prevention and remediation efforts. OSP is not able to meet these goals, because of the following issues: • ***Low Fidelity Information Tracking, Sharing, and Accessibility:*** Complete, accurate, and timely criminal offender records are not fully available. • ***Absence of Business Operational Information and Data-Mining***: Capturing pertinent CRIMEvue data for program evaluation is difficult and requires specialized expertise.
2014 Update[5]			
6	Invest In Youth and Families	**N/A**	This initiative does not target justice and public safety programs.
7	Prioritize Proven Prevention Programs	**N/A**	This initiative targets the use of OSP's records management data, which largely does not include information from CRIMEvue.
8	Improve Coordination with Local Communities and Citizens	○	The Governor's goal for this initiative is to improve integration of information systems. For OSP, this means the need to upgrade communications infrastructures for purposes of sharing data across jurisdictional boundaries. ***Degraded Technical Operational Capability***: CRIMEvue is not currently support this due to: • Reliance on a proprietary interface protocol, called DMP-2020. • The inability to utilize modern, open interface protocols, such as XML. Replacing the CRIMEvue solution would include interface requirements that would make data sharing between agencies easier and more effective.

TABLE 6 – Assessment of CRIMEvue Against Governor's 10-Year Plan

[5] Given the early-January 2015 release of this plan update, OSP has not yet responded.

CJIS Division Purpose

OSP's CJIS Division is responsible for providing a number of items to support public safety services throughout the state. The guiding principles of the division are identified in the following purpose statement:

> The purpose of the Oregon State Police Criminal Justice Information Services Division is to provide quality public safety services and support to the criminal justice community as well as the public through statewide sole-source programs. The CJIS Division is part of the Public Safety Services Bureau and responsible by law to provide access and data security to law enforcement records; user training and outreach for the appropriate access, entry, and use of criminal justice information; Oregon crime reporting statistics and data; timely and accurate criminal offender information and identification services to all criminal and non-criminal justice users and the public. This is accomplished through cooperation and partnership with local, state, and federal criminal justice and non-criminal justice agencies and through accessible services to the public.

The table below outlines specific items that are to be provided by the CJIS Division, as identified in the Division's Purpose Statement, and illustrates which primary problems with CRIMEvue and related systems impact that purpose.

#	OSP CJIS Division Purpose	Ability to Meet Purpose	Reasoning
1	Provide access and data security to law enforcement records.	◖	Current CRIMEvue systems exist in an environment that limits usability of the databases, including: • ***Low Fidelity Information Tracking, Sharing, and Accessibility****:* Authorized agencies may not have full access to complete criminal justice information from partners, such as up-to-date disposition or incarceration information. • ***Degraded Technical Operational Capability***: OSP does not have control over how users access the CRIMEvue databases, which has led to a variety of access methods and interfaces. Because OSP is unable to control this part of the user experience, unauthorized access to data may occur.
2	Provide user training and outreach.	●	The CJIS Division is responsible for making sure that CRIMEvue system users are informed about the information available through CRIMEvue and trained on how to access the information, via a specific LEDS training and education unit responsible for conducting statewide training activities.

#	OSP CJIS Division Purpose	Ability to Meet Purpose	Reasoning
3	Provide for the entry and use of criminal justice information.	◖	OSP does provide for the entry and use of criminal justice information via the CRIMEvue and supporting tools currently deployed. However, in its current condition the following issues arise: • ***Degraded Technical Operational Capability***: OSP provides no standard user interface to CRIMEvue information, forcing end users to utilize interfaces provided by disparate vendors. • ***Low Fidelity Information Tracking, Sharing, and Accessibility***: The ergonomics of data entry available to OSP users is burdened by outmoded user interface that significantly increases the time required to enter demographic and criminal record data. For example, users are limited to being able to enter only a few charges at a time for each case. • ***Absence of Business Operational Information and Data-Mining***: Basic information for managers and users relative to criminal records operation and statistics, such as record entry counts for a given time period, is not readily available.
4	Report Oregon crime statistics.	N/A	There are no formal OSP-based programs reliant on CRIMEvue data (not including to OSP's RMS program) for statistical analysis. However, CRIMEvue data is exported to outside agencies (e.g., the Criminal Justice Commission) for purposes of analysis unrelated to crime statistics.
5	Provide timely and accurate criminal offender information and identification services.	○	A 2003 audit of the criminal history system found the statistical likelihood of finding a CCH record with complete and accurate information was 30 percent. While this was comparable to peer states, efforts have not been undertaken to significantly improve these numbers. ***Low Fidelity Information Tracking, Sharing, and Accessibility***: Some of the root causes of the issue cannot be addressed by the current system. As a result, these deficiencies continue today in terms of data accuracy, timeliness, and completeness.

TABLE 7 – Assessment of CRIMEvue Against OSP CJIS Division Stated Purpose

OSP Information Technology Plan

In 2012, OSP developed a comprehensive IT plan, with the goal of utilizing technology to help transform common business processes. The plan outlines 10 strategic goals and objectives and outlines 37 near-term and mid-term action items. However, the objectives and the action items are largely disconnected from each other. The table below identifies the strategic IT plan goals, as well specific action items (e.g., 1.1.6) for which current CRIMEvue issues impact the pursuit of those priorities and objectives.

#	OSP IT Plan	Ability to Meet Purpose	Reasoning
1	**Efficiency**		
1.1	Transform Common Business Practices	○	CRIMEvue's degraded state does not allow OSP to meet the goal of transforming business practices. • ***Low Fidelity Information Tracking, Sharing, and Accessibility****: 1.1.6 – Support and enable the transformation of critical business processes.* The current CRIMEvue systems do not use a modern framework that can easily adapt to changing business processes. • ***Low Fidelity Information Tracking, Sharing, and Accessibility****: 1.1.7 – Develop enterprise document management and reduce paper documentation flows.* OSP is still highly reliant on manual, paper-based process to exchange criminal justice information.
1.2	Extend and Enhance Mobility Solutions in the Workplace	◖	The current CRIMEvue systems were developed well before the emergence of mobile devices in law enforcement. This aged technology platform does not allow OSP to meet mobile initiatives. • ***Absence of Business Operational Information and Data-Mining:*** *1.2.3 – Reallocate field office resources to support mobile systems.* Simply supporting the current CRIMEvue technology environment requires all available technical resources, which does not allow OSP to focus on the goal of expanding mobile systems and access. • ***Degraded Technical Operational Capability:*** *1.2.4 – Expand mobile capabilities.* The technology platform currently used by CRIMEvue makes it difficult to impossible to expand mobile capabilities to meet the expectations of users and the citizens of Oregon.
1.3	Improve IT Operational Maturity	◖	The current technical architecture of CRIMEvue prevents OSP from implementing operational change. • ***Absence of Business Operational Information and Data-Mining:*** *1.3.1 – Execute an IT reorganization plan.* Due to the aged systems in place, OSP must focus efforts on simply maintaining the status quo, making reorganization very difficult. • ***Degraded Technical Operational Capability****: 1.3.3 – Reduce and standardize technology portfolios.* As an example, OSP is unable to provide a standard CRIMEvue interface for its users. • ***Degraded Technical Operational Capability:*** *1.3.8 – Capitalize on Service-Oriented Architecture (SOA).* Enterprise Service Bus to reduce redundant data entry and transcription. Due to its technical architecture, CRIMEvue is unable to utilize an SOA, making external agency communications dependent outside vendors or via the DMP-2020 protocol.

#	OSP IT Plan	Ability to Meet Purpose	Reasoning
2	**Customer Service and Public Access**		
2.1	Social Networks - Facilitate Online Interaction/Access to Government	N/A	We evaluated this technology plan area, but it is not applicable to CRIMEvue systems.
2.2	Elevate Customer Service as an IT Operational Priority	○	The current technical and functional makeup of CRIMEvue has led to a disconnect between the CJIS Division and its customers. • ***Degraded Technical Operational Capability***: *2.2.1 – Integrate service delivery through a single point of presence (POP) on the Web.* The degraded state of CRIMEvue prevents implementing a portal solution that would provide a single, uniform point of entry for system users. • ***Absence of Business Operational Information and Data-Mining:*** *2.2.2 – Perform technology outreach and training.* Customer service is not a focus, because system maintenance is the priority.
3	**Transparency and Accountability**		
3.1	Reorganize Information Technology People, Processes, and Platforms	○	The technology processes utilized by the CRIMEvue systems are not consistent or in alignment with the resources available. • ***Absence of Business Operational Information and Data-Mining:*** *3.1.1 – Reorganize technology organizational structures.* The current state of CRIMEvue has forced OSP to focus resources on system support rather than user support and project management, and does not allow for the CJIS Division to reorganize. • ***Low Fidelity Information Tracking, Sharing, and Accessibility****: 3.1.2 – Modify business processes to use available data to support operational needs.* CRIMEvue data is not readily available in a format that makes it useful for meaningful analysis. • ***Degraded Technical Operational Capability***: *3.1.3 – Reorganize technology platforms to remain current and supported.* The CRIMEvue technology platform is old and difficult to support. • ***Degraded Technical Operational Capability:*** *3.1.4 – Develop enterprise document management system and reduce paper document flows.* This issue is identified and described in 1.1.7.

#	OSP IT Plan	Ability to Meet Purpose	Reasoning
3.2	Provide Timely, Accurate, and Appropriate Information for Accountability and Decision Making	○	The CRIMEvue systems provide query responses in a timely manner. Beyond that, however, information is largely unavailable for ready consumption by users. • ***Degraded Technical Operational Capability***: *3.2.1 – Provide portal to public records through single source Web POP.* The current CRIMEvue system is not capable of allowing public access to criminal record data. • ***Absence of Business Operational Information and Data-Mining:*** *3.2.5 – Modify operations based on metrics and data.* CRIMEvue is unable to produce easily extracted data in a manner that is useful for justice agencies to develop any meaningful in-depth data analysis.
4	**Risk Management**		
4.1	Infrastructure Preservation and Stewardship	◖	CJIS Division has been able to keep CRIMEvue systems, many significantly aged, functioning without significant failures or improvements. However, this is becoming more difficult, and the cost of maintaining these aged systems is increasing. • ***Degraded Technical Operational Capability:*** *4.1.1 – Capitalize on SOA - Enterprise Services Bus to reduce redundant data entry and transcription, abstract multiple vendors from minor updates and changes to data*. This issue is identified and described in 1.3.8. • ***Degraded Technical Operational Capability*** *4.1.2 – Examine alternatives for Sex-Offender Registry (SOR), Time Activity Accounting, and Laboratory Information Management System (LIMS) with existing systems*. A modern criminal records database solution would incorporate the SOR. • ***Degraded Technical Operational Capability*** *4.1.5 – Modernize legacy applications such as access databases. Capitalize on new systems and end-of-life outdated solutions*. This goal represents the basis of the CRIMEvue modernization effort.
4.2	Increase Employee Understanding and Impact on Security and Privacy Issues	○	The current CRIMEvue solution is not able to manage security standards programmatically. In addition, due to the effort required to maintain CRIMEvue systems, some current business processes do not provide effective security practices. • ***Degraded Technical Operational Capability*** *4.2.2 – Implement integrated controls that monitor and report on overall agency security (e.g., Snort/OSSEC).* Due to the effort required to simply maintain CRIMEvue systems, some network security controls that might be technically capable of being implemented are not. • ***Degraded Technical Operational Capability*** *4.2.8 – Continue to reduce security domains.* Modernizing CRIMEvue would allow OSP to centralize control and management of user access and implement a role-based security model.

#	OSP IT Plan	Ability to Meet Purpose	Reasoning
4.3	Green IT: Ensure IT Contributes to Reduced Environmental Impact	◖	Current systems are aged and noncompliant with Green IT pursuits. • ***Degraded Technical Operational Capability*** *4.3.1 – Adhere to EnergyStar and internal power standards.* The aged CRIMEvue server hardware is not compliant with EnergyStar standards. OSP IT has recently procured replacement hardware that is likely more compliant with contemporary efficiency standards, although a plan for moving to the new hardware is not yet in place.

TABLE 8 – Assessment of CRIMEvue Against 2012 OSP IT Plan

2012 FBI CJIS IAFIS Audit

In 2012, the FBI conducted a regular audit of Oregon's IAFIS. The FBI identified nine major findings related to fingerprint identification. The majority of the findings were not a direct result of the CRIMEvue database systems. However, two findings related to data security emerged:

- ***Authorized use of Criminal History Records Information (CHRI). Ensure that CHRI is only used for authorized purposes.***
- ***Unauthorized use of name-based access to III. Ensure that name-based access to III is only used for authorized purposes.***

While these findings represent a training aspect of the IAFIS program, they also represent issues that could be prevented through the use of role-based security in a modernized CRIMEvue system. Users would be restricted to accessing only those identification services and criminal records that they are authorized to use.

Prior Assessments

Over time, a number of assessments have been conducted which have identified issues with the current CRIMEvue systems. These assessments have included the following:

- ***2015 CRIMEvue User Survey*** – In early 2015, OSP conducted a brief survey to assess the overall satisfaction of CRIMEvue system users.
- ***2014 Challenges Assessment*** – In late 2014, OSP management, IT staff, and members of the OR CJIS Advisory Board were interviewed to ascertain their views on the current state of the CRIMEvue system resulting in several findings.
- ***2003 CCH Statistical Audit*** – In 2003, OSP conducted one of the most comprehensive audits of state criminal history records quality ever conducted nationally, which resulted in several findings.

The following subsections provide an overview of these assessment projects and their findings:

2015 CRIMEvue User Survey

In early 2015, OSP conducted a brief survey of CRIMEvue users. The intent of the survey was to provide a sense of how the CRIMEvue systems are used and the user perception of how easy the systems are to use. OSP received 235 responses within the short timeframe allotted for the survey. The survey identified the following major findings:

- ***Inquiries are generally easy to run in CRIMEvue***. Over 87 percent of the respondents agreed or strongly agreed that conducting an inquiry in CRIMEvue is easy, while 8.5 percent of users disagreed or strongly disagreed.
- ***CRIMEvue responses are not as easy to understand***. While 77 percent of the respondents indicated agreed that query responses returned by CRIMEvue are easy to understand and are useful to the users, over 18 percent of users disagreed.
- ***Entering records into CRIMEvue is relatively easy***. Although only 43 percent of respondents agreed that it is easy to enter records into CRIMEvue, over half of the respondents indicated that they do not enter records into CRIMEvue at all.
- ***CRIMEvue reports are important to users***. Over 65 percent of respondents indicated that having access to CRIMEvue reports is important, while nearly 30 percent stated that the reports are not applicable for their use, and fewer than 5 percent disagreed that the reports are important.

The overall survey results indicate that users are generally satisfied with the CRIMEvue systems. However, there is a desire to improve CRIMEvue functionality, as a fair number of users disagreed that it is easy to use. The nature of the survey does not allow us to draw a correlation between how the respondents use CRIMEvue systems and their overall level of satisfaction with CRIMEvue.

2014 Challenges Assessment

As part of the development of this business case, interviews were conducted with several internal OSP and external CRIMEvue stakeholders to ascertain their perspectives on the issues with the current environment that must be overcome as OSP contemplates how best to pursue a replacement system. Findings from these interviews have bearing on the business case and are summarized as follows:

- ***Technical and support staffing resource concerns exist.*** OSP currently has a dedicated but small number of personnel resources for CRIMEvue and LEMS. Current emphasis is on maintaining what is installed, with new development requests phased in to the current workload of supporting CRIMEvue and LEMS as well as other department IT products.
- ***User perspectives on technical capabilities of CRIMEvue are not consistent with LEDS support staff.*** Users associate unaddressed service requests (including reports) as a shortcoming of the current environment. It is not clear to users whether this perspective is compounded by the number of requests and staffing ability to address them; however, it is clear that requests are not attended to.
- ***LEDS is architected in a way that largely isolates the user interface; taking on responsibility at LEDS would be a cultural and technical staffing shift.*** Application support and management must include processes that manage change control and release management, and provide complete documentation for all aspects of the system. Including the user experience in this support structure will require new resources and processes.
- ***There is an unknown level of expense statewide for access to LEDS.*** Because LEDS information is only accessible from third-party provided interfaces, and these interfaces are provided at a cost to the hundreds of law enforcement agencies in the state, there is a real shared cost throughout the state.
- ***There is a lack of disaster recovery capabilities.*** No disaster recovery or Continuity of Operations (COOP) capability exists, except data duplication, in the current environment.
- ***The process for extracting and analyzing data is cumbersome.*** Responding to legislative and federal mandates and rule-making requirements is not as fluid as it should be, taking unnecessary time as compared to performing the same tasks in a newer computing environment.

2003 CCH Statistical Audit

In 2003, OSP conducted one of the most comprehensive audits of state criminal history records quality ever conducted nationally, which resulted in several findings. Overall, the likelihood of encountering CCH information that was both complete and accurate was assessed at 30 percent. This was an improvement over the prior audit conducted in 1994, which indicated a likelihood of 23 percent. The audit concluded with several findings and recommendations for improvement. A brief synopsis of high-level findings follows, many of which are still relevant today:

i. Organization and Statutes Findings

- No single point of ownership or authority exists for the overall criminal history reporting process in Oregon.
- State statutes have become more refined since 1994; however, some areas remain to be addressed.
- There is no formal intra-agency forum for the reconciliation of known criminal history reporting issues.
- The functional environment under which criminal history records are collected and maintained is high-risk and publicly visible.
- CCH users continue to perceive the CCH data to be largely incomplete.

ii. Policy and Procedural Findings

- Criminal history processing procedures for participant agencies are not well documented.
- Relatively few local agencies are utilizing accounting mechanisms to ensure the movement of critical criminal history data elements from agency to agency.
- The rapid deployment of live scan devices has created new business policy issues that affect the CCH overall.
- The policies and procedures relative to the capture, management, and dissemination of probation violation information vary from county to county and impact the perceptions of CCH data accuracy.

iii. Workflow Findings

- The transfer of criminal history data among state agencies (i.e., LEDS, OJIN, and ODOC) is characterized by a high degree of manual intervention and process workarounds.
- The district attorneys do not process declinations consistently.
- For counties that do not report non-mandated dispositions via OJIN, the district attorneys often become responsible for reporting that information to the CCH.
- Criminal history reporting practices vary greatly at the local agency level.
- Cases in “pending further investigation” status leave a void in the CCH data.

iv. Technology Findings

- The CCH system was not designed for the processing of non-sequential record segments.
- The CCH system has limited online management reporting capabilities that affect the visibility of the information being maintained.
- The CCH is highly arrest-oriented and can only contain information that is biometrically verifiable.
- The criminal history system does not provide measures for auditing the update of information in the CCH.
- The OJIN-to-LEDS electronic data pass is providing court dispositions for mandated-only offenses with a high level of accuracy.
- Prosecutor information is not interfaced with the criminal history system.
- Local information technology systems have traditionally varied widely from county to county; however, more are becoming standardized.

CCH Improvement Plan

The 2003 audit concluded with a comprehensive 10-year Criminal History Integration Environment (CHIE) plan designed to improve the completeness, timeliness, and accuracy of CCH information. The plan consisted of 20 projects across five initiatives as follows:

Initiative/Project	Description
Initiative I	**CCH Data and Process Improvements**
Project 1	CCH System Data Reconciliation
Project 2	Suspense File Reengineering
Project 3	CCH Best Practices Outreach
Initiative II	**CHIE Governance Foundation**
Project 4	Establish the CHIE Governance Committee (CGC)
Project 5	Establish Partner Agency Relationships
Project 6	Assign Project Management Office (PMO) Leadership and Staff Roles and Responsibilities
Project 7	Normalize Legislative Reporting Requirements
Project 8	Coordinate CHIE Project With State CJIS Initiatives
Project 9	Ongoing Project Monitoring and Reporting
Initiative III	**Architecture and Rollout Planning**
Project 10	Finalize and Adopt Technology Architecture
Project 11	Perform Alternative Business Process Exchange Definitions
Project 12	Develop Procedural Operations Model
Project 13	Initiate CHIE Rollout Planning
Initiative IV	**CHIE Pilot**
Project 14	Prepare for Pilot
Project 15	Develop Automated Exchanges
Project 16	Pilot Implementation
Project 17	Monitor Operations
Project 18	Update Statewide Rollout Plan
Initiative V	**Statewide CHIE Rollout**
Project 19	Regional Planning
Project 20	Regional Rollouts

TABLE 9 – 2003 CCH Data Quality Improvement Plan Summary

To date, OSP has completed Project 1.

Business Issues Summary

The business case approach uses well-known beacons of foundational statutes, rules, plans, and operational assessments as a backdrop for an analysis of how CRIMEvue performs. Additionally the business case approach provides linkages to the problems affecting CRIMEvue in the context of OSP's chartered responsibilities. The various technical, management, governance, operational, and quality issues identified throughout the business are traceable to OSP's inability to meet its responsibilities. Additionally, it is clear that as the merits of forward alternatives are evaluated for the future of CRIMEvue, the following business issues must be addressed:

- *OSP's Inability to Sustain Statutory Obligations.*
- *CRIMEvue's Incompatibility with the Governor's Objectives.*
- *CRIMEvue's Marginal Support of OSP's CJIS Division Purpose.*
- *OSP's Inability to Benefit From Its IT Strategic Plan.*
- *CRIMEvue's Data Quality, Business Challenge, and User Support Issues.*

Business Opportunities

Going forward OSP has determined a series of opportunities beyond those that address their immediate problems as outlined above. These opportunities are identified as follows:

Business Improvement Opportunities

OSP is seeking the ability to make significant business improvements in criminal history and hot file management. It is seeking a solution that can address the following specific needs:

- ***Improve Efficiency*** – Develop the ability to set and adjust transactional thresholds in a manner that reduces manual intervention while maintaining high levels of confidence. Examples include further lights-out processing through the use of data standards and entry requirements.
- ***Provide More Value to Customers*** – Take advantage of the FBI's next-generation IAFIS (NGI) RAP-back features, which will report instances of law enforcement contact for applicants who have gained access to vulnerable populations. Although Oregon does not provide for this capability legislatively today, OSP's major business partners are currently constructing the infrastructure required. It is also thought that at some point in the near future, Oregon's policies in this regard will be revisited.
- ***Align OSP Services With Demand*** – Provide a broader suite of services and functions relative to background checks. Background checking is a growth area of interaction with the state and private employers, and efficiencies here will result in faster delivery of background check results, easier request mechanisms, and expanded payment and accounting capabilities.
- ***Optimize Interactions With Partners*** – Provide the ability for OSP business partners that contribute and request criminal records information to interact with OSP electronically using techniques that work best for the particular partner. This includes judicial and related communities, and the use of Web services and more flexible technical architectures, especially in regards to a service-bus type approach.
- ***Provide Operational Insights*** – Provide the ability to measure workload and performance of systems and provide the reporting necessary to understand how policy affects the citizens of Oregon and how well the replacement system is supporting the mission and goals of the organization and partners nationally.

Technology and Architecture Opportunities

Key among the technology and architecture needs for OSP is a solution that includes and can address the following specific issues:

- ***Take Advantage of Current Investments*** - This includes those both within OSP and without. For example, the Judicial Department has an increased capability to interact with OSP electronically under its new Odyssey offering. Also, advancements in technologies from partner agencies and suppliers alike present new opportunities that must be exploited as OSP begins to develop solution requirements in the next stage of the stage gate process.
- ***Focus on Integration and Enforcement of Business Rules Electronically*** – Forward solutions must be compatible with OSP efforts to move to a scalable enterprise service bus (ESB) model as a means of addressing information exchanges between internal and external systems. The usefulness of the ESB must not only provide a structured means of information sharing, but also the ability to invoke those interchanges at desired points in the larger business process. This will allow for further automation of business rules among agencies interacting with the replacement systems.
- ***Change the Role of OSP Support Resources*** – The replacement system must have the ability to provide for maximum configurability without the need for vendor customizations, thus giving greater control to over the business to internal resources and requiring less dependence on the vendor in the future.

Business Service Opportunities

From a perspective of meeting business service goals, OSP seeks the following from the CRIMEvue replacement solution:

- ***Reacting to Change*** – Ability to easily align CRIMEVUE with normal changes imposed by:
    - FBI (NCIC).
    - Nlets.
    - WIN.
    - Others.
- ***Optimizing Business Operations*** – Ability to implement business process and technical efficiencies, such as:
    - Further improving the ability to match arrests and dispositions automatically.
    - Providing user-level configurability and avoiding reliance on highly technical resources.
    - Implementing Total Quality Management (TQM) mechanisms that focus on operational optimizations and data quality.
- ***Quality Management*** – Ability to move away from manual processes and interventions and focusing more on quality by:
    - Implementing lights-out processes.
    - Enhancing integration with business partners, especially courts.
    - Further refining currently manual processes.
    - Continuously reviewing and refining process.

In total, OSP seeks to ensure that the future CRIMEvue solutions are properly aligned with all relevant integration standards, industry best practices, and available vendor solutions as a means of maximizing the features and services that can be offered, while minimizing the total life cycle cost of the solution and related applications and technologies.

Vendor Market and Peer Considerations

Formal market research and peer survey provides insight into vendor offerings and peer state experiences relative to the replacement of CRIMEvue-like systems nationally. The CRIMEvue replacement project team gathered several market and peer data points from formal survey, personal interactions, and industry briefs. These data points are outlined in the subsections below:

Vendor Market Share

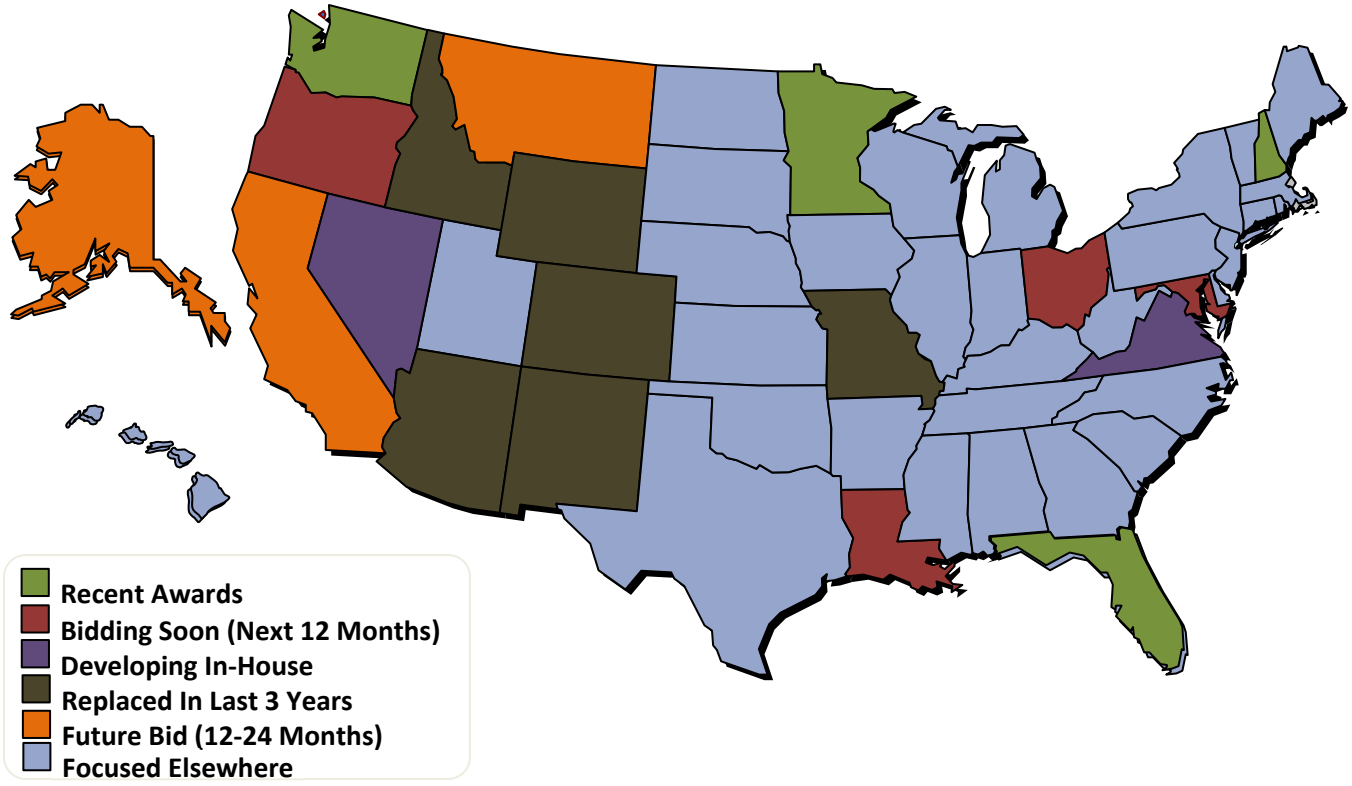
The table below presents information related to the prevailing vendors in the state-level marketplace. While the vendors listed below provide offerings to other clients such as local, county, regional, and federal law enforcement agencies, this view is focused on agencies most like OSP, and is not necessarily all-encompassing.

Vendor	CCH Clients	Hot Files Clients	Message Switching Clients
CPI	9 +1 NH Soon	24	32
Leidos (SAIC)	4	2	-
ThinkStream	1	1	-
Unisys	2	1	4
Datamaxx	-	2	2
Appriss	1	-	-
GCOM	+1 FL Soon	-	-
Boeing	+1 MN Soon	-	-
CourtView	1	-	-

TABLE 10 – Vendor State-Level Clients

Peer Activity

The illustration below presents information related to peer activity in the marketplace relative to acquisitions of similar systems to those sought in the CRIMEvue replacement effort. Of particular note here, Oregon is positioned to release a competitive solicitation in the same timeframe as at least three other states. This situation could have implications for the replacement. For example, the ability of the vendor community to respond to solicitations is limited. If all states release simultaneously, vendors will not be able to respond to all states, which limits competition. Also, if a particular vendor prevails in more than one of the procurements, it could result in a situation where the OSP implementation could become protracted.



OSP Pricing Survey

In the fall of 2014, OSP engaged vendor community to ascertain high-level pricing estimates based on a common set of indicators and reference information provided to vendors by OSP. A full analysis from this exercise is contained in APPENDIX B, and a summary is provided below:

Vendor	Provided Response	CCH	Message Switch	Hot Files	Annual Maintenance
Boeing	✔	$7.9M	n/a	n/a	Not Provided
CPI	✔	$2.34M			$372K
Datamaxx	✔	$3.5M			$240K
Leidos (SAIC)	✔	$3M to $8M	n/a	Incl.	$200K to $400K
Thinkstream	✔	$10.8M			$1M
Unisys	Did Not Respond	n/a	n/a	n/a	n/a

TABLE 11 – OSP Pricing Survey Summary

Peer Pricing (WSP)

Through an exploratory partnership with the WSP, OSP participated in a vendor pricing survey. The results of the survey are more specific to WSP; however the scope and size of the replacement efforts are very similar to OSP's, and OSP's needs were considered in the estimations. Also, it is noted that WSP is not seeking a message switching solution, only CCH and hot files, as outlined below:

Category	Vendor 1	Vendor 2	Vendor 3	Vendor 4
Hardware	$200K	$100K	$600K	$300K to $1M
Software	$1M	$2M to $3M	$8.5M	$800K to $2M
Implementation	$2M	$500K to $1M	$1M	$3.6M to $15.5M
Other	$1M	n/a	$4M	n/a
Total Capital	*$4.2M*	*$2.6M to $6.0M*	*$14.1M*	*$4.7M to $18.5M*
Annual Support	**$270K**	**15%** to **20%**	**No Response**	**No Response**

TABLE 12 – CCH and Hot File Pricing Estimates (WSP)

Peer Pricing (National)

Many states have undergone the replacement of one or more of the systems similar to CRIMEvue, and their pricing and cost experiences are outlined in the table below. The information below is the result of engagement with OSP's peers through national forums and consultant research.

State	CCH	Message Switch and Hot Files	Services	Annual Maintenance
CO	$7.8M			$560K
ID	$1.5M	$1.0M	$1.0M	$300K
LA	$4M	N/A	N/A	$425K
MO	$1.6M	$1.2M	N/A	$277K
NM	N/A	$3.2M	N/A	$400K
MN	$8M	N/A	N/A	TBD
WA	$6M (CCH and hot files only)			TBD

TABLE 13 – Other Peer Costs

Alternatives Analysis

Introduction

This section describes and valuates the various options available to OSP to address the CRIMEvue problems and opportunities described above. Each option, or alternative, is evaluated using a structured set of criteria comprising the following elements:

- Defined and Prioritized Selection Criteria.
- Costs.
- Benefits.
- Risks.

The remainder of this section introduces the evaluation criteria, presents analytical summaries, and references associated analytical details as appropriate.

Assumptions

The following assumptions relate to the overall approach for considering how OSP will pursue a replacement for the CRIMEvue system. This includes assumptions made regarding the project term, alternatives, trends, and approach items:

- ***Assumption 1 – CRIMEvue Replacement Scope****:* All three sub-elements of CRIMEvue (LEMS, CCH, and hot files) are considered in scope as part of the replacement effort, as:
    - By the time the CRIMEvue replacement project is under way, the LEMS portion will be 7 years old and in need of an update.
    - Modern COTS systems have highly integrated architectures that do not easily separate LEMS functions from those of the CCH and hot files.
    - This does not constrain OSP to a single vendor offering for all three aspects of CRIMEvue; rather it opens OSP to economies of scale. OSP will remain open to multi-vendor solutions as appropriate.
- ***Assumption 2 – Investment Time Period:*** Replacing CRIMEvue-type systems are complex undertakings that require significant resources to complete and where the delivered environments affect thousands of users. As such, these systems are not replaced frequently. The last full implementation for OSP was 1997, 18 years ago. Given this, the investment time period of measure for the CRIMEvue replacement project is designated at 10 years.
- ***Assumption 3 – Available Budget***[6]***:*** OSP is currently planning for an $11.6M initial capital investment for the CCH and hot files portion of the CRIMEvue replacement in fiscal biennium (FB) 15/17. Additionally, OSP plans for $3.9M in funding for the message switch portion of CRIMEvue in the 17/19 FB. Further, OSP is planning to request maintenance funding for purposes of addressing annual support costs for the selected replacement. It is currently held that the maintenance-funding request will be made during this legislative session and that it would cover maintenance for all aspects of CRIMEvue through FB 19/21 in the cumulative amount of $5.6M.
- ***Assumption 4 – Systems Hosting****:* OSP will assume that a replacement system will be hosted at the state data center, assuming that assurances relative to security compliance and service level agreements are in place. Further, OSP will consider vendor-hosted solution options to the extent that they provide adequate

[6] Budget figures here are derived from the OSP Policy Option Package regarding Criminal Justice Information System Division, Policy Package 101 – CRIMEvue System Replacement Project.

architectures for security compliance, connectivity, backup, failover, break-fix service, and economies of scale.

- ***Assumption 5 – Technical Architecture Preferences**:* OSP will not constrain solutions that prefer a particular solution set (i.e. .Net, Java). OSP is not currently limited by technical architectures and will entertain solutions that meet needs regardless of underlying technologies, within reason.
- ***Assumption 6 – Legacy Protocol Support***: OSP will require any new solution to support the legacy interface protocols already established—in particular the DMPP 2020 interface protocol that largely regulates how large local systems, such as 911 centers, communicate with CRIMEvue. OSP will require vendors to provide more modern alternatives to the legacy protocol; however, a central theme will be not to disturb current interfaces and cause new expense to local agencies.
- ***Assumption 7 – Performance Metrics:*** One of OSP's greatest issues with the current CRIMEvue environment relates to a lack of performance metrics and trends associated with the operations and management of CRIMEvue. A key requirement of a replacement system will include a demonstrable ability to provide the basic and advanced measures in terms of the governing requirements of the system.
- ***Assumption 8 – Partnering Not Yet Possible:*** The OSP and WSP criminal history and hot file systems were developed by the same vendor and were originally implemented in the same time period. While Oregon and Washington have evolved their systems separately, there are many similarities. Coincidently, WSP is also in the process of upgrading its criminal justice information systems, and the issues within the Oregon systems are very similar to Washington's issues. Washington and Oregon have agreed to collaborate and share information regarding efforts to upgrade or replace their CCH and hot file systems; however WSP has already executed a competitive procurement and is proceeding on the notion that no economies of scale will be attempted via a partnership with OSP. Further, other attempts by OSP to identify a governance structure to bring together other states have failed. Additionally, there are no examples where other states have successfully partnered for the replacement and/or operation of their CRIMEvue-type environments.
- ***Assumption 9 – Code Transformation Not an Option**:* Code transformation services are an emerging option that is not yet exercised in the public safety domain. Essentially a vendor will take existing code and transform into modern code using proprietary tools. The concept is that existing processes remain the same; however, the application becomes more supportable since it is now based on a more modern code base. This concept is gaining traction in the motor vehicle and driver-licensing domain, but has not yet been executed in the crime information center market, and as such is determined to be too risky for OSP, as it is an unproven approach that effectively provides no business benefit other than code modernization.

Selection Criteria and Alternatives Ranking

This section summarizes the alternatives analysis performed throughout this section of the business case. First presented is the profile of how all alternatives measured against the selection criteria established (a detailed explanation of which is in a subsequent section), followed by the associate alternatives ranking.

Selection Criteria Summary

Below is a summary view of the how well each identified alternative performed in comparison to defined benefit/risk criteria. Explanations for how summary scores were calculated are provided subsequently.

No.	Benefit/Risk Criteria	Do Nothing	Replace with COTS	Rewrite Systems Internally
1	Initial Capital Cost	●	◖	○
2	Cost to Maintain	○	◖	○
3	Operational Improvement	○	●	●
4	Stakeholder Benefit	○	●	●
5	Impact to OSP Technology	○	◖	◖
6	Application Flexibility	○	●	◖
7	Compliance With National Standards	○	●	●
8	Time to Deliver	●	◖	○
9	System Stability	○	●	●
10	Implementation Disruption	◖	○	●
11	Dependence on Internal OSP IT Staff Resources	○	◖	◖
12	Meets High-Level Solution Requirements	◖	●	●
13	Addresses Core Business Problems	○	●	●
14	Complies With Business Governance	◖	●	●
	Calculated Score:	***91***	***177***	***156***

Legend:
● = Significantly Satisfies
◖ = Moderately Satisfies
○ = Minimally Satisfies

Calculated Score Legend:
41 = Lowest Possible Score
205 = Highest Possible Score

TABLE 14 – Selection Criteria and Weight Summary

Ranking and Recommended Alternative

Below is a summary view of the relative ranking of each alternative based on the analyses conducted in subsequent sections.

Option	CRIMEvue Replacement Strategy Description	Calculated Score	Relative Rank
Alternative 1	Do Nothing With Current CRIMEvue Systems	91	3
Alternative 2	***Replace CRIMEvue With COTS***	***177***	***1***
Alternative 3	Rewrite Systems Internally	156	2

TABLE 15 – Alternative Rankings

As indicated above, alternative 2 (replace CRIMEvue with a COTS solution) is the highest ranked solution for the many reasons discussed throughout this section of the business case.

Benefit/Risk Criteria and Weighting

OSP has identified and agreed upon the following benefit and risk criteria and their definitions, and the weight assigned to each of these criteria for use in evaluating each of the options/alternatives:

No.	Benefit/Risk Criteria	Definition	Weight
1	Minimizes Initial Capital Cost	The total one-time capital cost for upgrade, transformation, or replacement of CRIMEvue and LEDS.	3
2	Minimizes Cost to Maintain	The recurring annual cost to maintain the alternative.	2
3	Provides Operational Improvement	The positive impact to business operations relative to each alternative. Addresses the Business Opportunities described previously.	4
4	Provides Stakeholder Benefit	The benefits to customers and major stakeholders for each alternative.	5
5	Reduces Impact to OSP Technology	The impact to the current OSP or state technology infrastructure for each alternative.	1
6	Provides Application Flexibility	The ability to make changes quickly and economically.	2
7	Compliance With National Standards	The degree of compliance with national standards and initiatives for each alternative.	1
8	Minimizes Time to Deliver	The amount of time it will take to deliver the selected alternative.	4
9	Provides System Stability	The ability of the system to be in continuous service per alternative.	1
10	Minimizes Implementation Disruption	The overall risk or disruptive impact of each alternative on business operations.	1
11	Reduces Dependence on Internal OSP IT Staff Resources	The overall risk due to dependence on internal OSP IT staff.	2
12	Meets High-Level Solution Requirements	Will successfully address the requirements outlined in Appendix A	5

No.	Benefit/Risk Criteria	Definition	Weight
13	Addresses Core Business Problems	Addresses the three core business problems identified in the Problems and Opportunities section of this business case (e.g. Degraded Operational Capability, Low Fidelity Information Quality, Sharing, and Accessibility, and Absence of Operational Information).	5
14	Complies With Business Governance Doctrines	Complies with the governing policies, rules, and plans outlined in the Problems and opportunities section of this business case.	5

Weight Legend:
5 – Most Important
1 – Least Important

TABLE 16 – Criteria Definitions and Weights

Weights Justification

For reference, justifications for the weights applied to the benefits/risk criteria defined in the table above are as follows:

- ***Initial Capital Cost*** – A weight of 3 was applied due to an assumption that the lowest cost solutions would not necessarily deliver the most reliable and scalable system.
- ***Cost to Maintain*** – A weight of 4 was assessed due to concerns around the cost to maintain internally, based upon the cost of recruitment, training, and retention of technical specialists versus the ongoing expense and dependency upon vendor maintenance. In addition, the uncertainty of budget constraints due to economic fluctuations of the biennial budget cycle for a statewide mission-critical system is of concern.
- ***Operational Improvement*** – A weight of 2 was applied due to the expectation that current commercially available systems are able to deliver the existing functionality, and continue to provide business functionality and processes that already meet end users' needs.
- ***Stakeholder Benefit*** – A weight of 1 was applied due to the expectation that current commercially available systems will be able to deliver the existing functionality, and continue to provide business functionality and processes that already meet end users' needs.
- ***Impact to OSP Technology*** Resources – A weight of 5 was assigned due to the criticality of having a solution that offers capable, integrated, standardized features with minimized need for OSP/state resources.
- ***Application Flexibility*** – A weight of 4 was applied due to the desire for solutions that require less vendor and state resource involvement to implement system configuration changes based on environmental and business needs.
- ***Compliance With National Standards*** – A weight of 5 was assessed because compliance with standards is mandatory. Those solutions that are not in compliance with national standards would receive a low score in this element.
- ***Time to Deliver*** – A weight of 2 was assigned due to implementation time being less important than operability of the system and the susceptibility of this project to external factors.
- ***System Stability*** – A weight of 5 was applied due to the mandatory need for this mission-critical system to meet the availability requirement of 99.95 percent system uptime.
- ***Business Operations*** – A weight of 5 was assessed due to the possibility that the solution's impact on business operations, requirements, and existing processes would result in significant changes to the status

quo. In addition, failure of this project would have high visibility and impact public safety and regulatory agencies.

- ***Dependence on Internal OSP IT Staff Resources*** – A weight of 4 was assigned due to the reduced ability to retain, train, and maintain resources internal to OSP that can effectively operate and support a solution.
- ***Meets High-Level Solution Requirements*** – A weight of 1 was applied here to ensure that the basic functions of the CRIMEvue environment are not eroded as the result of a replacement effort.
- ***Addresses Core Business Problems*** - A weight of 1 was applied here as any replacement solution must directly address these issues to be successful initially and in the long-term.
- ***Complies With Business Governance*** – A weight of 1 here is applied as a means of ensuring that the selected replacement system is not in conflict with established law, and that it is in alignment with where the state is headed with regard to functions and capabilities.

Selection Criteria Scoring

In the measuring the alternatives below against the selection criteria, a scoring system was used to subjectively measure the extent to which a particular option satisfies a particular element of the above listed selection criteria. Ratings have points associated with them, which are multiplied by the measurement weight established by OSP to derive an overall score.

Rating Legend:

● = 5 Points (Significantly Satisfies)
◖ = 3 Points (Moderately Satisfies)
○ = 1 Point (Minimally Satisfies)

The resulting calculation/formula is as follows:

Measurement Weight X *Rating* = *Score*

In this way, scores for each selection criterion can be summed for comparison to other alternatives. For reference, the minimum and maximum ranges for derived scores are as follows:

Minimum Scored Value Possible:	*41*
Maximum Scored Value Possible:	*205*

Solution Requirements

A number of high-level solution requirements for the future CRIMEvue systems have been identified. These requirements are detailed in Appendix A, and encompass the following major elements:

- ***CRIMEvue Major Business Functions*** – Includes the common business functions, customers, and outputs associated primarily with the CCH portion of the CRIMEvue system.
- ***Technical Standards*** – Includes a description of the federal standards, state standards, and other related technical standards with which CRIMEvue must comply.
- ***Transaction Types*** – Includes a number of records and messaging transactions, applicable largely to the LEMS portion of the overall CRIMEvue environment.
- ***Records Groups*** – Includes the logical orientation of like file types largely associated with the hot files system functions of CRIMEvue.

Alternatives Identification

This section of the business case provides a summary for each of the options or alternatives available to OSP in pursuit of an improved future CRIMEvue operating environment.

- ***Alternative 1: Do Nothing With Current CRIMEvue Systems*** – Continue with current support and maintenance contract for continued operation under the current system with Unisys and necessary support from LEIDOS.
- ***Alternative 2: Replace CRIMEvue With COTS*** – Pursue a full competitive bid and acquisition of the hardware, software, and implementation services necessary for the replacement of the complete current CRIMEvue systems with a COTS solution offering. COTS offerings include a spectrum of solutions with varying degrees of ability to configure. This includes packaged options and framework-based solutions.
- ***Alternative 3: Rewrite Systems Internally*** – Pursue a program of replacing some or all of the current systems using internal staff and resources.

A partnering approach with another peer agency nationally was found not to be a valid option, since WSP is already executing a competitive procurement and proceeding on the notion that no economies of scale will be attempted via a partnership with OSP. Further, other attempts by OSP to identify a governance structure to bring together other states have failed.

Cost Analysis

Appendix F presents the detailed financial worksheets associated with the business case, and comprises the following forms:

- ***Cash Flow Forms:*** Present the cash inflows and outflows associated with each alternative in terms of the following:
  - FORM 0 – Baseline Costs.
  - FORM 1 – Alternative 1 Do Nothing.
  - FORM 2 – Alternative 2 Replace with COTS.
  - FORM 3 – Alternative 3 Rewrite Systems Internally.
- ***Incremental Cash Flow Forms:*** Present the incremental cash flows associated with Alternatives 2 and 3. Because Alternative 1 is the baseline, there are no incremental costs to calculate. Incremental costs are presented in terms of the following:
  - FORM 4 – Alternative 2 Replace With COTS Incremental Costs.
  - FORM 5 – Alternative 3 Rewrite Systems Internally Incremental Costs.
- ***Other Forms:*** The financials appendix includes additional summary views of financials including:
  - FORM 6 – Graphical Cash-Flow Representations.
  - FORM 7 – Summary Metrics.

For Reference, FORM 0 – Baseline Costs is included, which shows current costs assuming no changes other than normal biennial increases over time, and assumes no degradation in service. This is only for comparative purposes.

Alternative 1 - Do Nothing With Current CRIMEvue Systems

The first option on the improvement alternatives continuum available to OSP would be to do nothing or take no action and simply maintain the current system as it is today. Below is a general description of the overall approach, selection criteria, costs, benefits, and risks.

Approach

The overarching approach elements of this option include:

- Negotiate continued maintenance agreements with Leidos, Unisys, and other vendors for the foreseeable future to include:
  - Continuing the current basic Leidos support service level agreements in place.
  - Continuing the current basic Unisys support team staffing and service level agreements in place.
  - Continuing the current other vendor support team staffing and service level agreements in place (this would minimally include contracting with Tailored Solutions for maintenance of the OSP-based user interface).
  - Seeking options to extend basic maintenance contract for additional periods of time.
- Perform hardware refreshments, replacements, and expansions as necessary, during the course of the performance period, to ensure viable equipment and operating environment.
- Perform software refreshments, replacements, and expansions as necessary, during the course of the performance period to ensure viable equipment and operating environment.
- No new project management or consulting resources would be required under this option.
- No new staff is required under this option.

Selection Criteria Summary

The following table provides a summary of how this alternative addresses the defined selection criteria as well as the resulting scores:

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
1	Minimizes Initial Capital Cost	3	●	15	• Requires no new capital.
2	Minimizes Cost to Maintain	2	○	2	• Perpetuates risk of failure, which increases with each passing year. • Costs to recover from failure would increase to cost of replacement in year 10. • Cost of failure has intangible measures relating to inability to provide basic public and officer safety.
3	Provides Operational Improvement	4	○	4	• Does not provide for any improvements. • Focused solely on maintaining legacy investments.
4	Provides Stakeholder Benefit	5	○	5	• Provides no new benefits over what is currently offered.
5	Reduces Impact to OSP Technology	1	○	1	• Does not substantively change the current technical environment. • The currently aged technical architecture is perpetuated.
6	Provides Application Flexibility	2	○	2	• Economical and speedy application changes are not a part of this strategy.
7	Compliance With National Standards	1	○	1	• Compliance with standards will continue as is today. • Any new standards requiring significant changes will largely remain unaddressed.

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
8	Minimizes Time to Deliver	4	●	20	• This has the shortest delivery timeline, as the current system is perpetuated.
9	Provides System Stability	1	○	1	• Stability will remain at current levels, which are high. • Over time, stability will erode with aging systems and decreasing ability to support systems.
10	Minimizes Implementation Disruption	1	◖	3	• This is the least disruptive option in the near-term. • By year 10 (non-implementation related) disruption risk increases due to aged systems and waning support capabilities.
11	Reduces Dependence on Internal OSP IT Staff Resources	2	○	2	• While basic/minimal support contracts are in place with existing vendors, this alternative perpetuates a reliance on existing OSP staff for support.
12	Meets High-Level Solution Requirements	5	◖	15	• Solution requirements are met at current levels of compliance. • The ability to maintain compliance becomes more challenging over time as the infrastructure ages.
13	Addresses Core Business Problems	5	○	5	• The current environment contributes in large part to the core business problems, due to its legacy design, age, and capabilities.
14	Complies With Business Governance Doctrines	5	◖	15	• As outlined in detail in the problems and opportunities section, the current environment only marginally complies with the various governing aspects affecting CRIMEvue. • Over time, compliance will continue to erode as plans and goals continue to change and the ability to meet basic commitments becomes more challenged.
			Total:	***91***	

Weight Legend:
5 – Most Important
1 – Least Important

Rating Legend:
● = 5 Points (Significantly Satisfies)
◖ = 3 Points (Moderately Satisfies)
○ = 1 Point (Minimally Satisfies)

TABLE 17 – Alternative 1 (Do Nothing) Selection Criteria Summary

Costs Summary

Costs for Alternative 1 are presented in Appendix C, specifically in FORM 1. Summary measures are provided below, and information supporting the cost figures is provided subsequently:

Ref.	Measure	FB: 15/17 - 23/25 ($1,000s)
1	Benefits/Gains	n/a
2	Personal Services	$(14,942.4)

Ref.	Measure	FB: 15/17 - 23/25 ($1,000s)
3	Services & Supplies/ Capital Outlay	
	-State Data Center	$(1,133.2)
	-Software Costs	$(1,304.0)
	-Hardware Costs	$(276.2)
	-IT Professional Services	$(3,500.0)
4	Net Cash Flow	$(21,266.4)
5	Net Present Value (0.0% Discount)	$(21,266.4)
6	Incremental Cash Flow (Over Baseline)	$(3,499.7)

TABLE 18 – Alternative 1 (Do Nothing) Cost Summary

Supporting Cost Details

The following points describe how costs were derived for this analysis. Note that the descriptions below directly correlate to Table 18 above, and that there are no solution costs as the environment is maintained over the 10-year period of performance:

1 – Benefits/Gains Cost Details:

- As Alternative 1 establishes the baseline for comparison to other costs, there are no benefits listed.

2 – Personal Services Cost Details:

- Includes permanent staff as recorded by OSP in October 2014 and projected for FB 15/17 through FB 19/21.
- FB 22/23 and FB 24/25 costs are estimated at the FB 19/21 rate with an increase of 5 percent per biennium.
- No temporary or limited duration (LD) staff are planned.

3 – Services and Supplies/Capital Outlay Costs:

- State Data Center Costs:
  - There are no state new State Data Center costs, as CRIMEvue will remain at OSP.
  - State Data Center costs for the provision of services for OSP's LEDS and Identification Services Section are calculated at $185,822 per biennium, per the OSP Financial Services Section. This figure is based on the FB 13/15 projections for ETS charges. ETS services include provision of mainframe services, storage, distributed computing, and networking infrastructure supporting CRIMEvue and other technical infrastructures. A 10 percent increase in these costs per biennium is assumed. For purposes of the cash flow analysis, the $185,822 biennial charge is split evenly among the listed cost categories of consulting services, hosting, storage, and network for a total of $46,455 per category.
- Software Costs:
  - Software purchases and upgrades are assumed at $25K in FB 15/17 as a means of maintaining in compliance with minimum systems support needs. Subsequent FB periods reflect a biennial increase of 5 percent.
  - Software licensing includes:
    - $159K per biennium for Unisys LEMS support in FB 15/17, with an assumed increase of 5 percent per biennium thereafter.
    - There are no current licensing costs with SAIC/Leidos.
    - Licensing for Tailored Solutions for the provision of a graphical user interface for OSP-based LEDS users is calculated at $52K per biennium, with an assumed increase of 5 percent per biennium thereafter.

- Hardware Costs:
  - Hardware purchases and upgrades are estimated at $25K in FB 15/17 as a means of avoiding systems failure. Subsequent FB periods reflect a biennial increase of 5 percent.
  - OSP maintains a contract for the support of LEMS hardware at a cost of $20K per biennium. Additional ongoing maintenance costs for other hardware are estimated at $25K in FB 15/17 as a means of avoiding systems failure. Subsequent FB periods reflect a biennial increase of 5 percent for all hardware maintenance.

4 – IT Professional Services Cost Details:

- IT Professional services staff are anticipated for outlying FB periods as a means of providing additional support for a system that will well beyond its useful life. Legacy systems experts are expected to be highly technical and specialized with a fully laden annual rate of $175K. One resource will be required in FB 18/19, two in FB 20/21, three in FB 22/23, and four in FB 24/25.

Benefits

Benefits are largely outlined in the selection criteria summary above. Benefits are projected in terms of their performance as compared to the defined selection criteria. With the elements of the selection criteria as a backdrop, the following summary benefits are most germane to Alternative 1:

- Solution with the lowest initial capital cost.
- Solution with the shortest time to deliver.
- Provides the most limited amount of disruption in the near term.

Risks

Risks are largely expressed are in terms of their performance relative to the defined selection criteria. With the elements of the selection criteria as a backdrop, the following summary benefits are most germane to Alternative 1:

- Costs to maintain grow exponentially as additional contractor and technical resources are required to maintain the aging systems over the period of performance.
- No operational improvements are provided.
- No new stakeholder benefits are provided.
- The currently aged technical architecture is perpetuated.
- This alternative provides the most limited amount of disruption in the near term.
- This alternative continues the lack of flexibility for economical and speedy changes.
- Systems stability, while initially high, will erode significantly during the period of performance.
- This alternative involved long-term risk for significant disruption due to systems failure.
- This alternative is the most dependent on already strapped technical resources, requires significant contractor resources in outlying FB periods.
- This alternative does not address the core business problems identified.

The weakness of this option rests wholly on the fact that the difficulties, limitations, and issues associated with the current system will continue, and compound, until the system eventually succumbs to catastrophic failure.

Timeline

Implementation timeline dynamics for this option are largely not applicable, as there is no immediate project to undertake.

Alternative 2 – Replace CRIMEvue With COTS

The second option on the improvement alternatives continuum available to OSP would be to replace CRIMEvue with competitively procured COTS software. Below is a general description of the overall approach, selection criteria, costs, benefits, and risks.

Approach

The overarching approach elements of this option include:

- Executing a competitive solicitation process to engage the vendor marketplace in a formal solicitation for hardware, software, and services.
- Developing a clear set of comprehensive system requirements for all major CRIMEvue components (CCH, hot files, message switch).
- Developing a formal request for proposals, and vendor evaluation criteria.
- Developing separate implementation and operational statements of work.
- Seeking solutions that are "best of breed" as well as those that offer economies of scale when packaged with tangential products.
- Selecting a new solution that comes in the form of a commercially offered application, configured and/or customized:
  - Perpetual licensing: one-time perpetual license fee, one-time implementation service fees, annual maintenance fees.
  - Term licensing: annual license fee, one-time implementation service fees.
  - Leasing: annual lease payment.
- Acquiring new project management, analytical, QA, and consulting resources that would be required under this option.
- Acquiring new staff as required under this option to manage the project and provide business and technical expertise during the transition to the new system, as well as an investment in training for existing staff.
- Capitalizing on the expertise of current staff during the COTS transition and preparing them for new roles such as administration, analytics, configuration management, and so forth as the replacement system is implemented.

Selection Criteria Summary

The following table provides a summary of how this alternative addresses the defined selection criteria as well as the resulting scores:

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
1	Minimizes Initial Capital Cost	3	◖	9	• This alternative would require an initial capital cost that would largely be tied to the successful implementation of the COTS package, likely in a milestone payment manner over the course of the implementation. Preliminary estimates from leading COTS vendors indicate a one-time capital expense between $3.5M and $5M. • A possible approach may include a minimal up-front cost with steady and predictable monthly payments over a long term, especially in a vendor system-hosted scenario.

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
2	Minimizes Cost to Maintain	2	◖	6	• Annual maintenance costs, based on a preliminary COTS market survey, are estimated between $240K and $372K annually. This is a nonbinding estimate that will likely change (increase) as OSP support preferences are further defined and a formal competitive bid scenario is executed.
3	Provides Operational Improvement	4	●	20	• Provides operational improvements relative to systems stability and further aligns with opportunities as follows: o Enforcing business rules through configurations that will increase data quality, and forcing the issue of managing business rules through workflows. o Refocusing operational and technical staff on business improvements, metrics, and alignment with goals instead of a dedicated focus on system uptime and disaster avoidance. o Reacting to change more effectively, as OSP will belong to a larger community of interest where multiple client needs are addressed by the same vendor. o Building an ESB that allows for new methods and efficiencies in communicating with business partners
4	Provides Stakeholder Benefit	5	●	25	• Provides an opportunity for an enterprise license for a user interface. • Provides an option for standardization of the user experience and also provides an opportunity for users to forego fees currently paid to third-party vendors. • Provides opportunity for program management with the availability of basic system metrics and the option to tailor measurements to align with governing doctrines.
5	Reduces Impact to OSP Technology	1	◖	3	• Available COTS packages rely largely on common technical infrastructures, with preferences toward Java. • As a COTS solution will likely be hosted at ETS, or by the vendor in a vendor-hosted scenario, the impact to OSP's current environment will be negligible. • There will be a need to train existing OSP technical resources on the selected platform for the basic configuration management and operation reporting aspects of systems operation. Training will largely be included in the vendor contract. • No new investments in user workstations are anticipated to support COTS-based user interfaces.
6	Provides Application Flexibility	2	●	10	• COTS packages are largely workflow-oriented and provide administrative capabilities to set thresholds, route workflows, and define and update rules with relative ease. • In a COTS scenario, existing OSP IT staff will be readied for application configuration and administration roles with a focus on addressing change requests.

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
7	Compliance With National Standards	1	●	5	• COTS packages are largely compliant with contemporary standards from the FBI and NCIC. • OSP's ability to implement a COTS package in a standards-compliant manner is dependent on several factors outside of the COTS vendor control. This includes items such as existing networking infrastructure and established user security protocols.
8	Minimizes Time to Deliver	4	◖	12	• Delivery timelines are estimated at 18 to 24 months based primarily on scope (all three aspects of CRIMEvue versus. something less), COTS vendor backlog, implementation approach (all aspects of CRIMEvue at once versus. incremental implementation), and agency readiness. • Further impacts to schedule relate to the agencies' ability to mobilize a competitive solicitation and achieve award and contract.
9	Provides System Stability	1	●	5	• Stability will be a condition of acceptance and migration, which largely abates this issue. • Further, stability will be a contracted item in terms of availability measurements. • Over time, stability will remain more predictable than in the do-nothing alternative.
10	Minimizes Implementation Disruption	1	○	1	• This is likely the most disruptive option, especially internally at OSP. • Regional user disruption will be minimal, as a requirement to comply with existing interface protocols (DMPP-2020) will be in place. • Individual user access (from agencies outside of OSP) to CRIMEvue is at risk of the COTS vendor's as yet unknown ability to accommodate interfaces from third-party vendors. This may require a large population of users to migrate to the COTS vendor's user interface.
11	Reduces Dependence on Internal OSP IT Staff Resources	2	◖	6	• A core strategy of a COTS approach is to offload as much of the maintenance of the system as possible to the vendor. This key approach alleviates traditional OSP issues of internal support availability. • At the outset, dependence on staff during the implementation phase will be significant and will require new resources to manage. It is estimated that this could be as many as 4 FTEs across disciplines of project management, business analysts, and technical analysts. • In the long term however, a greatly reduced reliance on internal technical expertise is expected, as existing resource roles will transition to configuration, administration, metrics management, and data quality pursuits.
12	Meets High-Level Solution Requirements	5	●	25	• There are no significant aspects of OSP requirements that are not already addressed within a COTS package. While there will be differences in approach between current capabilities and those of the COTS vendor, these differences are addressed through contracted elements of training and configuration.

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
13	Addresses Core Business Problems	5	●	25	• A COTS approach directly addresses the issues of degraded operational capability by providing for the configuration of the system to meet standing and unmet business goals. • OSP must be specific in the vendor solicitation materials relative to the issues to be addressed, so that elements of configuration, green IT, business continuity, metrics, and related goals and opportunities are clear. However, these are not uncommon expectations of COTS packages and are largely manageable with the appropriate requirements, statements of work, and contracting vehicle. • The absence of basic operational and management metrics is a core business issue for OSP. COTS packages largely include basic management metrics and reporting as part of the offering. Additionally, COTS packages include reporting engines that can be manipulated by those with appropriate training to perform complex agency specific reporting and data extractions.
14	Complies With Business Governance Doctrines	5	●	25	• OSP is currently challenged to exemplify how the current system performs in response to statutes, administrative rules, IT plans, Governor's initiatives, and the like. • As part of the solicitation process, the production of this information on a consistent basis will become a core requirement of the COTS package. As such, it is incumbent upon the COTS vendor to work with OSP to make these associations within the system and to provide a means for exemplifying compliance on a continual basis. This is not an uncommon capability for the COTS vendor community.
			Total:	***177***	

Weight Legend:
5 – Most Important
1 – Least Important

Rating Legend:
● = 5 Points (Significantly Satisfies)
◖ = 3 Points (Moderately Satisfies)
○ = 1 Point (Minimally Satisfies)

TABLE 19 – Alternative 2 (Replace With COTS) Selection Criteria Summary

Costs Summary

Costs for Alternative 2 are presented in Appendix C, specifically in FORM 2. Summary measures are provided below, and information supporting the cost figures is provided subsequently:

Ref.	Measure	FB: 15/17 - 23/25 ($1,000s)
1	Benefits/Gains (n/a for baseline)	$660.2
2	Personal Services	$(16,742.4)
3	Services & Supplies/ Capital Outlay - State Data Center - Software Costs - Hardware Costs - IT Professional Services	 $(1,270.6) $(5,972.6) $(662.9) $(2,540.0)
4	Net Cash Flow	$(26,528.3)
5	Net Present Value (0.0% Discount)	$(26,528.3)
6	Incremental Cash Flow (Over Alt 1 – Do Nothing)	$(5,261.9)

TABLE 20 – Alternative 2 (Replace With COTS) Cost Summary

Supporting Cost Details

The following sections describe how costs were derived for this analysis. Note that the descriptions below directly correlate to Table 20 above, and that solution costs follow the cash flow data points.

Cash Flow Data Points

The following points describe the basis for the Alternative 2 cash flows in FORM 2 of Appendix C:

1 – Benefits/Gains Cost Details:

- The primary financial benefit is avoiding emergency costs and downtime, which can be measured in harm to law enforcement officers and the public. Additionally, the current CRIMEvue environment is heavily lacking performance metrics from which quantitative financial comparisons can be drawn. However, one area of benefit surfaced that, while the OSP was unsuccessful in quantifying, can be estimated. As such, the following is offered for financial gain measures:
- Of the 25,000 users in Oregon accessing CRIMEvue, it is estimated that approximately 10 percent of them access CRIMEvue via third-party user interface, for a fee. Fees vary widely depending on the agency and the third-party vendor contract in place. Vendors are largely unwilling to share user base and fee information, and OSP does not track local user costs. Some anecdotal information suggests that users could be paying $66 per year per user. As this is not an OSP fee, it is not listed in the cash flow under software; rather, it is approached as a benefit, assuming OSP will offer local agencies an option to use a user interface at no cost via licensing arrangements with the selected COTS vendor. As such:
  - Benefit 1: Assumes a user adoption rate for the COTS user interface at 25 percent of the user base per year. The resulting benefit calculations are as follow:
    - 2,500 users X $66 annually X 2 biennia = $330,000/FB.
    - Biennial OSP user interface adoption rate of 25 percent yields a savings of $82,500/FB starting in July 2018.

2 – Personal Services Cost Details:

- Includes permanent staff as recorded by OSP in October 2014 and projected for FB 15/17 through FB 19/21.

- FB 22/23 and FB 24/25 costs are estimated at the FB 19/21 rate with an increase of 5 percent per biennium.
- Four LD staff are anticipated for project management and business and technical analysis. A fully laden rate of $150K annually for each resource is assumed, with a term of 3 years starting in July 2015.

3 – Services & Supplies/Capital Outlay Costs:

- State Data Center Costs:
  - State Data Center costs for the provision of services for OSP's legacy LEDS and Identification Services Section are calculated at $185,822 per biennium, per the OSP Financial Services Section. This figure is based on the FB 13/15 projections for ETS charges.
    - ETS services include provision of mainframe services, storage, distributed computing, and networking infrastructure supporting CRIMEvue and other technical infrastructures.
    - For purposes of the cash flow analysis, the $185,822 biennial charge is split evenly among the listed cost categories of consulting services, hosting, storage, and network for a total of $46,455 per category.
    - These costs are expected to grow by 10 percent in each FB.
    - These costs are projected to conclude in June 2018.
  - New State Data Center costs are anticipated for the COTS environment in the amounts of $180K per biennium for CRIMEvue and $78K for LEMS ($258K total) as detailed in the OSP Policy Option Package 101.
    - These new costs will start in July 2018.
    - This $258K biennial charge is split evenly among the listed cost categories of consulting services, hosting, storage, and network for a total of $64.5K per category for the duration of the investment period.
    - ETS charges for hosting the COTS environment are anticipated to grow at a rate of 10 percent per biennium.
- Software Costs:
  - Until COTS implementation, software purchases and upgrades for the legacy environment are assumed at $25K through June of 2018 a as a means of maintaining in compliance with minimum systems support needs. Biennial increases of 5 percent are anticipated for periods beyond FB 15/17.
  - Software licensing includes:
    - $159K per biennium for Unisys LEMS support in FB 15/17, with an assumed increase of 5 percent per biennium thereafter.
    - Licensing for Tailored Solutions for the provision of a graphical user interface for OSP-based LEDS users is calculated at $52K per biennium, with an assumed increase of 5 percent per biennium thereafter. It is assumed that this arrangement will no longer be required after June 2018.
    - COTS software costs are expected to be paid in FB 18/19 in the one-time capital cost of $2,690,000, as outlined below in the COTS pricing data points table.
    - Biennial software maintenance costs are estimated at $744,000, starting in July 2019.
- Hardware Costs:
  - Until COTS implementation, hardware purchases and upgrades are estimated at $25K through June 2018 as a means of avoiding systems failure. Biennial increases of 5 percent are anticipated beyond FB 15/17.
  - OSP maintains a contract for the support of LEMS hardware at a cost of $20K per biennium. Additional ongoing maintenance costs for other hardware are estimated at $25K in FB 15/17 as a means of avoiding systems failure. Both of these costs will be unnecessary in June 2018 after COTS system go-live. Subsequent FB increases of 5 percent are in place through June 2018.
  - COTS hardware costs are expected to be paid in FB 18/19 in the one-time capital cost of $557,000, as outlined below in the COTS pricing data points table.
  - Hardware costs are expected to be borne within the ETS hosting agreement.

4 – IT Professional Services Cost Details:

- COTS system IT Professional services staff are anticipated in the one-time capital cost of $2M, with one-half occurring in FB 16/17 and one-half in FB 18/19.
- Additional costs for implementation QA from an independent third party operating under DAS requirements are anticipated for the duration on the COTS implementation. This is calculated at $15K monthly for an estimated 36 months for a QA total of $540K. Normal costs for QA are 10-20 percent of solution costs. QA costs are expected to occur with 24 months in FB 15/17 ($360K) and 12 months in FB 17/19 ($180K).

COTS Pricing Data Points

OSP conducted a survey of vendor COTS solutions in November 2014. Costs were requested in terms of COTS vendor system hardware, software, services, and annual maintenance. Vendors provided costs based on preliminary dimensions of requirements and needs. Further, costs were found to be within reason based on the experience of OSP's peers with recent replacement projects. The table below summarizes COTS pricing information:

Cost Range	Vendor Total One-Time Capital Estimate	Hardware Costs	Software Costs	Services Costs	Annual Maintenance Costs
Low Value	$3,250,000	$500,000	$1,000,000	n/a	$240,000
High Value	$3,500,000	$557,000	$2,690,000	$2,000,000	$372,000

TABLE 21 – Alternative 2 (Replace With COTS) Market Cost Estimates

As a note, no single responding vendor provided all low or all high values. As such, a mix of the highest values is used in the financial analysis as a means of remaining pessimistic, understanding the non-formal nature of the vendor solicitation.

Benefits

Benefits are largely outlined in the selection criteria summary above. Benefits are projected in terms of their performance as compared to the defined selection criteria. With the elements of the selection criteria as a backdrop, the following summary benefits are most germane to Alternative 2:

- Capital cost is lower than that for custom software.
- Maintenance costs are lower than those for custom software.
- The alternative provides a high level of operational improvement.
- The alternative provides a high level of stakeholder benefit.
- The alternative is highly flexible in terms of configuration.
- The alternative complies with prevailing national standards.
- The alternative provides a modern, stable platform.
- The alternative meets requirements.
- The alternative addresses core business issues.
- The alternative is complimentary to aspects of systems governance.

Additionally, Alternative 2 provides the following benefits:

- Reduced capital investment as compared to that for custom software.
- Potential exposure to a large peer user group and community of interest.
- New enterprise CCH and hot files application system environment, which is:
  - Contemporary, for both the solution and technical architecture.
  - Standards-based.
  - Best of breed.
  - A highly configurable solution, including workflows.
- Tightly integrated set of solutions.
- New functionality and solution offerings.

Risks

Risks are largely expressed are in terms of their performance relative to the defined selection criteria. With the elements of the selection criteria as a backdrop, the following summary risks are most germane to Alternative 2:

- Likely the most disruptive to users in the near term.
- Requires existing staff to take on new roles with new technologies.
- Can be a lengthy implementation when considering lead time for a competitive bid.
- Can increase reliance on existing staff during the implementation period.
- Relatively large operational impact of business units due to potentially new application processes.
- Requires total retraining of staff on new system.
- Requires staff participation throughout procurement and implementation processes.
- Requires trade-offs and changes to existing business processes to accommodate the capabilities of the vendor package.

Timeline

The following major steps and timelines are anticipated for the execution of Alternative 2. The timeline below assumes appropriate approvals to proceed with a competitive procurement are in place by April 1, 2015.

Step	Description	Duration (Months)	Time Frame
1	Procurement Strategy and RFP Solicitation Package Development	4	April – July 2015
2	Final RFP Assembly and Approvals	2	August - September 2015
3	RFP Release	3	October – December 2015
4	Identification of Apparent Successful Bidder	2	January – February 2016
5	Vendor Contracting	3	March – May 2016
6	System Implementation	24	June 2016 – June 2018
	Total:	**38 Months**	

TABLE 22 – Alternative 2 (Replace With COTS) Timeline Summary

Alternative 3 – Rewrite Systems Internally

A third option on the improvement alternatives continuum available to OSP would be to replace CRIMEvue with customized software developed internally. This may be accomplished by using existing technical resources and/or augmenting them with contracted outside technical expertise. Below is a general description of the overall approach, selection criteria, costs, benefits, and risks.

Approach

The approach elements of this option closely mirror the custom software approach and include:

- Executing a competitive solicitation process to engage the vendor marketplace in a formal solicitation for development services and purchasing any requisite hardware and software tools (possibly competitively or from existing state contracts).
- Developing a clear set of comprehensive system requirements for all major CRIMEvue components (CCH, hot files, message switch).
- Developing a formal request for proposals and vendor evaluation criteria.
- Developing separate implementation and operational statements of work.
- Seeking solutions that are "best of breed" as well as those that offer economies of scale when packaged with tangential products.
- Selecting a new solution that comes in the form of a commercially offered solution framework that is configured and/or customized to OSP's needs and requirements.
- Acquiring new development, project management, analytical, QA, and consulting resources that would be required under this option.
- Acquiring new staff as required under this option to manage the project and provide business and technical expertise during the transition to the new system, as well as investment in training for existing staff as required.
- Capitalizing on the expertise of current staff during the custom software transition, and preparing them for new roles such as administration, analytics, configuration management, and so forth as the replacement system is implemented.

Selection Criteria Summary

The following table provides a summary of how this alternative addresses the defined selection criteria as well as the resulting scores:

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
1	Minimizes Initial Capital Cost	3	○	3	• This alternative has greatest one-time capital cost tied to the successful implementation of the custom package. Preliminary estimates from leading custom software vendors with demonstrable experience indicate a one-time capital expense between $7.8M and $13.6M. • In some instances, depending on the strengths of the vendor, the custom software solution provider may recommend replacing some aspects of the environment with COTS software.

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
2	Minimizes Cost to Maintain	2	○	2	• Annual maintenance costs, based on a preliminary custom software market survey, are estimated between $200K and $1M. This is a non-binding estimate that will likely change (increase) as OSP support preferences are further defined and a formal competitive bid scenario is executed. • This is the most expensive maintenance option.
3	Provides Operational Improvement	4	●	20	• Provides the greatest ability to customize technical workflows around existing business practices. • Provides for the highest level of customizations to take advantage of partner interfaces, especially those of the courts. • Can provide metrics that directly relate to OSP requirements, as they will be customized to do so.
4	Provides Stakeholder Benefit	5	●	25	• Can perpetuate the current third-party user interface provisions the easiest. • If a new user interface is a requirement for the vendor, there is a possibility that the vendor would recommend sourcing it from another company with demonstrable experience (effectively perpetuating the current user interface model). • Provides options for many stakeholder benefits, although they must be known in advance as a requirement.
5	Reduces Impact to OSP Technology	1	◖	3	• Available custom software packages more readily address any architectural preferences. However, no substantive preferences or limitations were found in the OSP/ETS environment. • This approach typically consumes more time to implement, which would require reliance on current infrastructures for a longer period than other options. • There will be a need to train existing OSP technical resources on the selected platform for the basic configuration management and operation reporting aspects of systems operation. Training will largely be included in the vendor contract. • No new investments in user workstations are anticipated to support custom software-based user interfaces.
6	Provides Application Flexibility	2	◖	6	• Custom software packages are designed to be implemented with defined thresholds and customer-specific workflows. The ability to modify these items is largely incumbent on the support arrangement and/or the ability to specify which aspects of the application will be made configurable by the customer. • In a custom software scenario, existing OSP IT staff will be readied for application configuration and administration roles through a training program. Otherwise, this will become the responsibility of the solution provider via an ongoing support agreement.

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
7	Compliance With National Standards	1	●	5	• Custom software packages are largely compliant with contemporary standards from the FBI and NCIC. • OSP's ability to implement a custom software package in a standards-compliant manner is dependent on several factors outside of the custom software vendor's control. This includes items such as existing networking infrastructure and established user security protocols.
8	Minimizes Time to Deliver	4	○	4	• Delivery timelines for custom software are longest and are estimated at 24 to 36 months, based primarily on scope (all three aspects of CRIMEvue versus something less), custom software vendor backlog, implementation approach (all aspects of CRIMEvue at once versus. incremental implementation), and agency readiness. • Further impacts to schedule relate to the agencies' ability to mobilize a competitive solicitation and achieve award and contract.
9	Provides System Stability	1	●	5	• Stability will be a condition of acceptance and migration, which largely abates this issue. • Further, stability will be a contracted item in terms of availability measurements. • Over time, stability will become more dependent on the support structure implemented, whether with the vendor, internally, or both.
10	Minimizes Implementation Disruption	1	●	5	• Disruptions under this model will be more manageable, as implementation approach can be tailored to manage disruptiveness. • Regional user disruption can be minimized, as a requirement to comply with existing interface protocols (DMPP-2020) will be in place. • Risk related to individual user access (from agencies outside of OSP) to CRIMEvue is lessened, as there is more opportunity to accommodate existing third-party user interface vendors in a custom environment.
11	Reduces Dependence on Internal OSP IT Staff Resources	2	◖	3	• A core strategy of a custom software approach is to offload as much of the maintenance of the system as possible to the vendor. This key approach alleviates traditional OSP issues of internal support availability. • At the outset, dependence on staff during the implementation phase will be significant and will require new resources to manage. It is estimated that this could be as many as 4 FTEs across disciplines of project management, business analysts, and technical analysts. • OSP will have the option to take on as much or as little of the system support as required. However, support costs under the custom approach are generally higher, given the specific client focus.

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
12	Meets High-Level Solution Requirements	5	●	25	• There are no significant aspects of OSP requirements that are not already addressed within a custom software package approach. While there will be differences in approach between current capabilities and those of the custom software vendor, these differences are addressed through contracted elements of training and configuration.
13	Addresses Core Business Problems	5	●	25	• A custom software approach directly addresses the issues of degraded operational capability by providing for the configuration of the system to meet standing and unmet business goals. • OSP must be specific in the vendor solicitation materials relative to the issues to be addressed so that elements of configuration, green IT, business continuity, metrics, and related goals and opportunities are clear. However, these are not uncommon expectations of custom software packages and are largely manageable with the appropriate requirements, statements of work, and contracting vehicle. • The absence of basic operational and management metrics is a core business issue for OSP. Custom software packages include reporting engines that can be manipulated by those with appropriate training to perform complex agency specific reporting and data extractions, and these solutions may also contain canned reports based on the preferences of prior clients' installations.
14	Complies With Business Governance Doctrines	5	●	25	• OSP is currently challenged to exemplify how the current system performs in response to statutes, administrative rules, IT plans, Governor's initiatives and the like. • As part of the solicitation process, the production of this information on a consistent basis will become a core requirement of the custom software package. As such, it is incumbent upon the custom software vendor to work with OSP to make these associations within the system and to provide a means for exemplifying compliance on a continual basis. This is not an uncommon capability for the custom software vendor community.
		Total:		***156***	

Weight Legend:
5 – Most Important
1 – Least Important

Rating Legend:
● = 5 Points (Significantly Satisfies)
◖ = 3 Points (Moderately Satisfies)
○ = 1 Point (Minimally Satisfies)

TABLE 23 – Alternative 3 (Rewrite Systems Internally) Selection Criteria Summary

Costs Summary

Costs for Alternative 2 are presented in Appendix C, specifically in FORM 3. Summary measures are provided below, and information supporting the cost figures are provided subsequently:

Ref.	Measure	FB: 15/17 - 23/25 ($1,000s)
1	Benefits/Gains	$660.2
2	Personal Services	$(16,742.4)
3	Services & Supplies/Capital Outlay -State Data Center -Software Costs -Hardware Costs -IT Professional Services	 $(1,270.6) $(10,063.0) $(780.9) $(7,185.0)
4	Net Cash Flow	$(35,381.7)
5	Net Present Value (0.0% Discount)	$(35,381.7)
6	Incremental Cash Flow (Over Alt 1 – Do Nothing)	$(14,115.3)

TABLE 24 – Alternative 3 (Rewrite Systems Internally) Cost Summary

Supporting Cost Details

The following sections describe how costs were derived for this analysis. Note that the descriptions below directly correlate to Table 24 above, and that solution costs follow the cash flow data points.

Cash Flow Data Points

The following points describe the basis for the Alternative 3 cash flows in FORM 3 of Appendix C:

1 – Benefits/Gains Cost Details:

- The primary financial benefit is avoiding emergency costs and downtime, which can be measured in harm to law enforcement officers and the public. Additionally, the current CRIMEvue environment is heavily lacking performance metrics from which quantitative financial comparisons can be drawn. However, one area of benefit surfaced that, while the OSP was unsuccessful in quantifying, can be estimated. As such, the following is offered for financial gain measures:
- Of the 25,000 users in Oregon accessing CRIMEvue, it is estimated that approximately 10 percent of them access CRIMEvue via third-party user interface, for a fee. Fees vary widely depending on the agency and the third-party vendor contract in place. Vendors are largely unwilling to share user base and fee information, and OSP does not track local user costs. Some anecdotal information suggests that users could be paying $66 per year per user. As this is not an OSP fee, it is not listed in the cash flow under software; rather, it is approached as a benefit assuming OSP will offer local agencies an option to use a user interface at no cost via licensing arrangements with the selected custom software vendor. As such:
    - Benefit 1: Assumes a user adoption rate for the custom software user interface (assuming it is developed or otherwise acquired by the custom software vendor and provided to OSP in the form of a licensing arrangement that is extendable to all CRIMEvue users) at 25 percent of the user base per year. The resulting benefit calculations are as follows:
        - 2,500 users X $66 annually X 2 biennia = $330,000/FB.
        - Biennial OSP user interface adoption rate of 25 percent yields a savings of $82,500/FB starting in July 2018.

2 – Personal Services Cost Details:

- Includes permanent staff as recorded by OSP in October 2014 and projected for FB 15/17 through FB 19/21.
- FB 22/23 and FB 24/25 costs are estimated at the FB 19/21 rate with an increase of 5 percent per biennia.
- Four LD staff are anticipated for project management and business and technical analysis. A fully laden rate of $150K annually for each resource is assumed, with a term of 3 years starting in July 2015.

3 – Services & Supplies/Capital Outlay Costs:

- State Data Center Costs:
  - State Data Center costs for the provision of services for OSP's legacy LEDS and Identification Services Section are calculated at $185,822 per biennium, per the OSP Financial Services Section. This figure is based on the FB 13/15 projections for ETS charges.
    - ETS services include provision of mainframe services, storage, distributed computing, and networking infrastructure supporting CRIMEvue and other technical infrastructures.
    - For purposes of the cash flow analysis, the $185,822 biennial charge is split evenly among the listed cost categories of consulting services, hosting, storage, and network for a total of $46,455 per category.
    - These costs are expected to grow by 10 percent in each FB.
    - These costs are projected to conclude in June 2018.
  - New State Data Center costs are anticipated for the custom software environment in the amounts of $180K per biennium for CRIMEvue and $78K for LEMS ($258K total) as detailed in the OSP Policy Option Package 101.
    - These new costs will start in July 2018.
    - This $258K biennial charge is split evenly among the listed cost categories of consulting services, hosting, storage, and network for a total of $64.5K per category for the duration of the investment period.
- Software Costs:
  - Until custom software implementation, software purchases and upgrades for the legacy environment are assumed at $25K through June of 2018 a as a means of maintaining in compliance with minimum systems support needs. Biennial increases of 5 percent are anticipated for periods beyond FB 15/17.
  - Software licensing includes:
    - $159K per biennium for Unisys LEMS support in FB 15/17, with an assumed increase of 5 percent per biennium thereafter.
    - Licensing for Tailored Solutions for the provision of a graphical user interface for OSP-based LEDS users is calculated at $52K per biennium, with an assumed increase of 5 percent per biennium thereafter. It is assumed that this arrangement will no longer be required after June 2018.
    - Custom software costs are expected to be paid in FB 18/19 in the one-time capital cost of $5,012,500, as outlined below in the custom software pricing data points table.
    - Biennial software maintenance costs are estimated at $1,333,333, starting in July 2019.
- Hardware Costs:
  - Until custom software implementation, hardware purchases and upgrades are estimated at $25K through June 2018 as a means of avoiding systems failure. Biennial increases of 5 percent are anticipated beyond FB 15/17.
  - OSP maintains a contract for the support of LEMS hardware at a cost of $20K per biennium. Additional ongoing maintenance costs for other hardware are estimated at $25K in FB 15/17 as a means of avoiding systems failure. Both of these costs will be unnecessary in June 2018 after custom software system go-live. Subsequent FB increases of 5 percent are in place through June 2018.
  - Custom software hardware costs are expected to be paid in FB 18/19 in the one-time capital cost of $675,000, as outlined below in the custom software pricing data points table.
  - Hardware costs are expected to borne within the ETS hosting agreement.

4 – IT Professional Services Cost Details:

- Custom software system IT professional services staff are anticipated in the one-time capital cost of $6,555M, with one-half occurring in FB 16/17 and one-half in FB 18/19.
- Additional costs for implementation QA from an independent third party operating under DAS requirements are anticipated for the duration of the custom software implementation. This is calculated at $15K monthly for an estimated 42 months for a QA total of $630K. Normal costs for QA are 10 to 20 percent of solution costs. QA costs are expected to occur with 24 months in FB 15/17 ($360K) and 18 months in FB 17/19 ($270K).

Custom Software Pricing Data Points

OSP conducted a survey of vendor custom software solutions providers in November 2014. Costs were requested in terms of custom software vendor system hardware, software, services, and annual maintenance. Vendors provided costs based on preliminary dimensions of requirements and needs. Further, these costs were found to be within reason based on the experience of OSP's peers with recent replacement projects. The table below summarizes custom software pricing information:

Cost Range	Vendor Total One-Time Capital Estimate	Hardware Costs	Software Costs	Services Costs	Annual Maintenance Costs
Low Value	$7,850,000	$100,000	$1,750,000	$2,000,000	$200,000
High Value	$13,600,000	$1,250,000	$8,275,000	$11,100,000	$1,000,000
Average	n/a	$675,000	$5,012,500	$6,555,000	$600,000

TABLE 25 – Alternative 3 (Rewrite Systems Internally) Market Cost Estimates

As a note, no single responding vendor provided all low or all high values. Because of the wide ranges in costs, and average of low and high values was used in the financial analysis as a means of remaining pessimistic understanding the non-formal nature of the vendor solicitation.

Benefits

Benefits are largely outlined in the selection criteria summary above. Benefits are projected in terms of their performance as compared to the defined selection criteria. With the elements of the selection criteria as a backdrop, the following summary benefits are most germane to Alternative 3:

- Will create moderate implementation disruption.
- Will allow OSP to specify system attributes that align with existing business processes.
- Is the most flexible when managing politically sensitive issues.
- Is highly flexible in terms of configuration.
- Complies with prevailing national standards.
- Provides a modern, stable platform.
- Meets requirements.
- Addresses core business issues.
- Is complimentary to aspects of systems governance.

Risks

Risks are largely expressed are in terms of their performance relative to the defined selection criteria. With the elements of the selection criteria as a backdrop, the following summary benefits are most germane to Alternative 3:

- Capital costs are the highest.
- This alternative would incent a non-desirable OSP-based tech-support model.
- This alternative has the highest annual support costs.
- This alternative has the lengthiest implementation timeline.
- This alternative has the most reliance on internal staff during the implementation period.
- There is a recent and prominent peer failure using this approach.
- This approach is difficult to manage to deliverable-based pricing; change orders and cost overruns are a constant risk.
- This approach requires existing staff to take on new roles with new technologies.
- This approach can be a lengthy implementation when considering lead time for a competitive bid.
- This approach will increase reliance on existing staff during the implementation period.
- This approach requires staff participation throughout procurement and implementation processes.
- This approach will not allow OSP to benefit from a community of interest.

Timeline

The following major steps and timelines are anticipated for the execution of Alternative 3. The timeline below assumes appropriate approvals to proceed with a competitive procurement are in place by April 1, 2015.

Step	Description	Duration (Months)	Time Frame
1	Procurement Strategy and RFP Solicitation Package Development	4	April – July 2015
2	Final RFP Assembly and Approvals	2	August – September 2015
3	RFP Release	3	October – December 2015
4	Identification of Apparent Successful Bidder	2	January – February 2016
5	Vendor Contracting	3	March – May 2016
6	System Implementation	36	June 2016 – June 2019
	Total:	**50 Months**	

TABLE 26 – Alternative 3 (Rewrite Systems Internally) Timeline Summary

Conclusions and Recommendations

This section outlines the conclusions of the business case and provides recommendations and several considerations and strategies supporting how best to move forward.

Conclusions

The following conclusions are drawn from the preceding analyses as follows:

Problems and Opportunities-Related

- ***Conclusion 1 – CRIMEvue Must be Replaced*** – The core business problems relative to degraded capabilities, imminent risk of systems failure, data quality, and lack of substantive operational and management measures provides a clear indication that the investments in CRIMEvue started in prior to 1997 have outlived their useful life.
- ***Conclusion 2 – Delays in CRIMEvue Replacement Will Jeopardize Public Safety*** – CRIMEvue is the central authority contributing to decisions regarding subject access to vulnerable populations, access to civil liberties, and decisions on how criminals are managed. Further, the routine aspects of CRIMEvue impact the daily lives of all Oregon citizens. Examples include reporting and locating missing persons and property, ensuring that criminals cannot access Oregon's elderly and youth, and extending these functions nationally and internationally.
- ***Conclusion 3 – OSP's Ability to Perpetuate the Current CRIMEvue Support Model Has Eroded*** – OSP originally purchased the CRIMEvue software package from two vendors and made the decision to purchase the code base and support the application internally. Over time, the ability for OSP to attract and retain the resources necessary to operate and manage the system has been challenged by state cutbacks, more competitive compensation elsewhere, and turnover in key operational and technical positions.
- ***Conclusion 4 – Inability to Measure Business Metrics Has Led to Internal and External Complications*** – Basic business metrics relative to the operation of CRIMEvue are not institutionalized into internal OSP operations. This includes measures related to transactions processed, open and closed user requests, what technical support resources are working on, data volumes, workflow timing, data completeness, and other basic measurements. While there is a capability to garner this information, it is usually overly complicated, ad hoc, not repeatable, and highly dependent on resource availability. Trying to optimize this environment or align it with organizational goals or prevailing doctrines has been impossible. Additionally, this condition makes it more difficult
- ***Conclusion 5 – An Outmoded Operational Model Has Led to Complications That Drive Unnecessary Expense to Users and Promote a Lack of Standardization*** – OSP relies on third-party vendors for provision of user interface software to CRIMEvue for a fee. This model is perpetuated from a time where terminal access was the standard, whereas now users access CRIMEvue from personal computers and related devices. Most peer states have moved to a model where the repository agency equivalent to OSP provides a user interface at no cost to the user. As such, OSP now faces a situation where there is a lack of standardization in the user experience, and where OSP does not have influence or insight into how client business rules are managed. Further, third-party vendors are largely unregulated in terms of their contractual arrangements with their clients and are also now dependent on revenue from these clients. This condition has also separated OSP from their users in a manner where their needs cannot be fully understood.
- ***Conclusion 6 – There Is a Severe Data Quality Issue Within CRIMEvue*** – Many peer states have evolved to a culture of quality in their collection and dissemination of criminal information. In Oregon, the last data quality audit for Oregon's CCH system was conducted 12 years ago (2003). It identified how data quality issues within CRIMEvue are caused at a very granular level starting with originating information at

each county in Oregon. Effectively, the audit proved that there is a 30 percent chance of pulling a RAP sheet that is complete and accurate. Further, the audit provided a comprehensive plan for the improvement of these records, which included multiple business and technical initiatives. This plan has largely not been executed, and issues with data quality continue to compound today.

- ***Conclusion 7 – CRIMEvue Replacement Sensitivities Add Uncertainty to How OSP Will Address CRIMEvue Replacement*** – Complications with third-party vendor relationships and systems hosting requirements will impact how the system is designed and deployed. These issues cause uncertainties relative to future requirements and preferences.

Alternatives-Related

- ***Conclusion 8 – Only One CRIMEvue Replacement Option Is Viable*** – The analysis found a number of possibilities, but only one was found to be germane: replacement with COTS. The overall best option was Option 2 since it would have the highest benefit and lower cost.
- ***Conclusion 9 – Internal Development Not an Option*** – OSP does not have the resources necessary to define solution requirements and build and deploy solution software. Resources are primarily tasked with the operation and maintenance of current systems, and largely do not possess the skills, tools, or organizational resources necessary to develop and support custom solutions of this magnitude.
- ***Conclusion 10 – Financial Analyses Are Not Focused on Cash Flow Gains, Rather on Cost Avoidance*** – Financial gains are not a goal for the CRIMEvue replacement effort; however, future emergency cost avoidance for failures is a goal, although difficult to specify as to the extent and timing. Additional cost offsets come in the form of future cost avoidance for changes driven by regulatory and business partner agencies such as the FBI and WIN. While some cost offsets in the form of OSP provision of a user interface licensing arrangement can be (and are) measured, it is an ongoing political sensitivity. The number of users, their actual costs, and potential rate of adoption are surmised, as no data exists, nor could it be garnered due to privacy limitations. The condition of not projecting a positive cash flow for systems of this type is common.

Recommendations

The following recommendations are drawn from the preceding analyses as follows:

- ***Recommendation 1 – Pursue Competitive Bid to Replace CRIMEvue*** – Alternatives 2 (COTS) appears to be the most applicable option given relative strengths and weaknesses. To ensure that OSP has the most relevant basis for COTS comparison, we recommend a competitive bid process.
- ***Recommendation 2 – Obtain Dedicated Project Management Expertise for the Project*** – To ensure that OSP has the highest chance at project delivery success, we recommend that OSP obtain, internally or externally, a full-time, competent, expert-level project manager with Project Management Professional (PMP) qualification and a minimum of 8 years' experience, preferably in law enforcement systems implementations.
- ***Recommendation 3 – Complete Development of Required RFP Documentation*** – It is recommended that OSP initiate efforts to prepare the foundational documentation required for the competitive bid process. This includes the development of more detailed functional requirements reflecting current and desired operations, as well as details regarding hosting and user interfaces. This information will be required to ensure that current functionality is retained where applicable and that future needs are articulated in a manner such that vendors can prepare an appropriate response. Minimally, the as-is model should include a full accounting of all current CRIMEvue business and technical attributes, including (much of this is available through this business case):
    - Business process and workflow delineation.

- CRIMEvue data models.
- CRIMEvue interface controls and specifications.
- Criminal records models.
- CRIMEvue outputs.
- Transactional volumes and trends.
- Systems capacities and trends.
- System performance.
- Technical topologies.
- Inventory of hardware and software.
- Applicable standards and compliance status.
- Partner systems descriptions.
- Exception processing rules.
- Audit processes.
- Fee accounting practices.
- Known shortcomings.
- Known and anticipated needs.

Minimally, a depiction of the future environment should address:

- Hosting requirements.
- User interface preferences.
- Operational and management metric expectations.
- Specific focus on the level of vendor support required.

Minimally, statements of work should address:

- OSP expectations, deliverables, and milestones during the implementation phase.
- OSP expectations, deliverables, and milestones during the operational phase.

- ***Recommendation 4 – Require a Support Model That Relies More on Vendor Resources*** – To address OSP's long-standing issues with systems maintenance and improvement, OSP should develop a vendor support model that provides dedicated vendor resources for the provision of system improvement requests, customizations, and configurations as appropriate. Existing OSP personnel should be trained and tasked with meeting the daily administrative needs of the system, focusing on data quality improvements, and orienting services to meet the needs of stakeholders.
- ***Recommendation 5 – Address CRIMEvue Replacement Sensitivities Now*** – Unanswered questions relative to complications with third-party vendor relationships and systems hosting requirements will impact how the system is designed and deployed. These decisions and/or accommodations should be explored and finalized now before a competitive solicitation is issued.
- ***Recommendation 6 – Begin an Effort to Define Required Operational Metrics*** – The business case analyses show a lack of basic operational and management information relative to the operations of the CRIMEvue environment. This shortage of information makes it difficult to measure the most basic of business functions, and makes it even more difficult to establish a baseline measure for improvements and adherence to governing doctrines. OSP should define the measures that will allow for more management visibility into operations, for purposes of operational improvement and compliances prior to releasing an RFP. In this way, OSP can be specific about how the business will measure itself and can communicate that to vendors.
- ***Recommendation 7 – Address Systems Hosting Risk*** – OSP recognizes the authority of ETS to host state systems. However, there are concerns relative to the timeliness of ETS being able to provide the system and data availability and disaster recovery capabilities OSP needs, as well as the ability of OSP to enforce key mission-critical service level agreements and security standards. The recommendation is for OSP to define, early and specifically, what the technical requirements of the replacement system are, so that ETS services can be responsive and aligned.

Solution Approach

The overall approach is to seek phases of work based on specific functions of CRIMEvue. This subsection lists the anticipated phased focus and work products/system attributes associated with each phase. Key to this approach is the notion that OSP will require specific work products from early phases to be available for users prior to full acceptance. Also, this approach is highly subject to changes relevant to the preferences of OSP and the selected vendor.

Phase 1 – Core Components

Task	System Attributes Addressed
1	• Project Control Document • SW Development/Implementation/Configuration Guide • Training Plan • Data Model • Data Migration Plan
2	• Authentication • Messaging • Workflow
3	• Person Functions • Switch Client
4	• Agency Functions • Business Processing

TABLE 27 – Implementation Phase 1 Approach

Phase 2 – CCH

Task	Work Products Addressed
5	• Arrest • Court Case • Disposition • Department of Corrections • RAP Sheet • Fingerprints • CCH Query
6	• Sex Offender
7	• FBI - III/NCIC • Court Order
8	• Nlets
9	• AFIS Design
10	• AFIS/WIN Interface • Applicant Processing

Task	Work Products Addressed
	• E-Disposition Design
11	• E-Disposition Interface
12	• E-Applicant • Public Background Check Interface • RAP-Back NGI

TABLE 28– Implementation Phase 2 Approach

Phase 3 – LEMS and Hot Files

Task	Work Products Addressed
13	• Hot Files 1 (12 total)
14	• Hot Files 2 (12 total)
15	• Hot Files 3 (12 total)
16	• State Agency Interfaces
17	• Regional Interfaces (DMPP-2020)
18	• Utilities • Reports
19	• Document Scanning • Documentation • Training • Final Testing • Project Closeout

TABLE 29 – Implementation Phase 3 Approach

Order of Implementation Unknown

Early CRIMEvue replacement project efforts to define the project and its financial variables (e.g., the Information Resource Request) described a major cost dependency tied to the delivery order of the message switch and database (with database referring to the CCH and hot files). As the replacement effort has progressed, it has become clear that vendor approaches here will vary based on the solution sets offered. For example, one vendor requires that its switch product to be in place before deploying CCH and hot files. Alternatively, other vendors do not have this dependency and may recommend a deployment of their database solutions before addressing updates to the message switch, if any. As such, a determination of which aspect of the CRIMEvue replacement system will be acquired and deployed first will remain unknown until a solutions vendor is selected.

New Roles and Responsibilities

The proposed solution does not require any fundamental changes to the current organizational structures at OSP to operate the proposed solution. It should be noted, however, that OSP will require robust project management services, outside QA, and highly engaged executive sponsors and project steering committee.

Next Steps

Minimally, OSP should endeavor to execute the following steps as well as striving to accommodate the aforementioned recommendations:

- ***Step 1: Procurement Strategy and RFP Development*** – OSP will should develop key foundational strategies and documentation required to clarify CRIMEvue functionality and needs. To lead this effort, OSP should include as part of its procurement strategy, a solicitation for a fulltime project manager with PMP credentials and at least 8 years similar experience, preferably in law enforcement systems implementation. Having a dedicated project manager on board will enable planning activities to begin in full and enable OSP to commit to the development of an as-is business and technical model, a to-be future business and technical model, and a technical architecture as it applies to addressing the key sensitivities discussed throughout the business case. Each of these components is critical for OSP to understand and articulate the department's needs regarding current and future functionality, and these documents will serve as key components of the RFP package to ensure that a like-to-like comparison of market vendor and incumbent capabilities is achieved. In any event, these documents are required as a basis for preparing improvements. Concurrently, OSP will engage the appropriate state authorities to gain approvals and appropriately prepare for the development and release of an RFP. This may include the engagement of outside resources for solicitation development. In addition, during this time CRIMEvue operational management representatives will reach out to peer states to review their recent CRIMEvue-equivalent replacement systems to begin to see how other states address their vendor contracts and implementations. This is largely a discovery and educational effort.
- ***Step 2: Solution Implementation Vendor RFP Assembly and Approvals*** – Using the documentation developed above, the Solution Implementation Vendor RFP will be assembled in a final form and final approvals for release will be addressed.
- ***Step 3: Solution Implementation RFP Release*** – OSP may wish to consider a strategy of pre-releasing the RFP to the vendor community for comment. This way any issues with the context of the RFP and associated requirements can be addressed prior to official release. This is a successful strategy that has been used on other large technology procurements to minimize procurement disruptions when an incumbent vendor has been in place for a long period.
- ***Step 4: Identification of Apparent Successful Bidder*** – OSP will evaluate solution implementation vendor responses according to a predetermined set of criteria and select an apparent successful bidder after all appropriate procurement proceedings are concluded.
- ***Step 5: Solution Implementation Vendor Contracting*** – OSP will negotiate as appropriate and enter into a binding contract as approved by state procurement authorities.
- ***Step 6: System Implementation*** – OSP will work with the contracted vendor to deliver the required CRIMEvue replacement systems over an estimated period of 2 to 3 years. The contract will include both an implementation and operational statements of work, so that all acceptance and ongoing maintenance activities and vendor behaviors are defined in advance and are part of the contract.

Key Considerations

OSP is planning to employ a common, proven, and efficient approach to project management for this effort. Project-appropriate roles and responsibilities are set forth. A well-planned decision-making structure will be employed. The project team will be organized to effectively coordinate activities. Sound QA strategies will be employed to help ensure that OSP meets its objectives.

Risks

Risks for the recommended approach are discussed in Appendix C. This is considered a high-risk project.

Roles and Responsibilities

This project will bring together a variety of organizations and individuals from both inside and outside OSP to modernize or replace CRIMEvue. The individuals from these organizations will serve distinct roles on the project. These roles include:

- ***Executive Sponsors*** – Because this project involves resources from two divisions in OSP (CJIS and IT), two representatives will serve jointly as executive sponsors. They are ultimately responsible for providing leadership for this project. They have the authority to marshal the resources from their divisions required for project success. They have ultimate executive decision-making authority for this project.
- ***Steering Committee*** – The executive sponsors will co-chair the Project Steering Committee. This committee will comprise managers of the CJIS and IT. It will also include DAS/ETS. This group will provide guidance to the project, advising on scope and objectives. It will review all reports and interim work products. The members of the committee will work together to resolve issues, ensure the coordination of activities between their respective units, and communicate with their organizations about the project.
- ***Project Manager*** – A project manager from OSP will be assigned to this project. This person will be responsible for the day-to-day activities of the project. S/he will develop an integrated project schedule that considers the tasks of both OSP and the solution provider. This person will track, facilitate, and manage:
    - Project work plan and schedule.
    - Issue logs and issue resolution.
    - Risk logs and risk mitigation effort.
    - Change requests.
    - Contract administration and change control.
    - Status report development, distribution, and presentation.
    - Steering committee meetings.
    - Project communication.
- ***OSP Business Subject Matter Experts (SMEs)*** – These individuals will provide operational expertise to the project and inform the solution provider on operational issues. They will review and provide feedback on project work products in their domain of expertise and participate in acceptance testing. They will also have role-specific duties, as described below:
    - *Business Integration Manager* – This person will coordinate business SME efforts to contribute information to the project. She/he will manage policy resolution and help develop the business workflow at a macro level. She/he will help define how business operations will employ this new technology.
    - *CRIMEvue and LEMS SMEs* – These individuals will develop procedure and training materials for implementation and operations.
    - *OSP Technical SMEs* – These individuals will be available to the project to provide technical expertise about the OSP technology environment. They will provide documentation and explanations about the technology environment as needed. They will review and provide feedback on work products as it relates to their area of expertise. In addition, they will also have role-specific duties, as described below:
    - *CRIMEvue Technical Staff* – They will provide insights on the technical architecture, interfaces, and data structures.
    - *Technical Testing Manager* – This person will structure and lead the testing effort.
    - *Internal Business Analyst* – This person will assist in testing and advise the project manager and Steering Committee on steps that can be taken to reduce risk and meet the promised scope, schedule, and budget.

    - *Infrastructure Technician* – This individual will assist in the installation, testing, and operation of the infrastructure required for the solution as appropriate.
- ***CRIMEvue Technology Manager*** – This individual will ensure that the OSP IT resources needed by the project are available when needed.
- ***Solution Provider Project Team*** – The chosen solution provider will assign a team of professionals to deliver the new application. This team will have a project manager and will likely feature both business and technical SMEs with a deep understanding of the solution. This team will produce project work products, perform thorough and comprehensive QA and testing, and provide support and troubleshooting for all work products.
- ***Independent QA*** – The DAS will require independent QA for this project. An independent QA professional will help to ensure that features and functionality meet business objectives and that the requirements and goals for the project will be fulfilled.

Quality Assurance

QA is a vital aspect of the project. Several overlapping strategies will be followed to ensure that the project that is delivered has integrity, meets business requirements, and is of quality workmanship.

- ***Progressive Deliverable Reviews*** – OSP will review and accept each deliverable following a product quality control process. The progression of planning, technical specifications, and product development will ensure that quality is built into the process and that frequent reviews take place for validation.
- ***OSP Quality Management*** – OSP will employ a quality management team that is responsible for the validation and verification of the work products, the business requirements, and the software products. They will use industry best practices to validate and verify the application through independent testing, validation of documentation and requirements, and observing the processes used to build and deploy the products.
- ***Collaborative Testing*** – OSP will work with the solution provider to create comprehensive test specifications, scripts, test data, tools, and protocols to support the agile development process, or configuration management techniques in the case of a COTS solution.
- ***Progressive Testing*** – This consists of a progressive set of testing activities that will validate that the system meets OSP needs. The solution provider will conduct testing with each sprint. This will include tests of individual components and a comprehensive integration test of the components as a part of the application build to date. They will share test results and performance statistics with OSP. OSP will verify and validate these results, performing validation and acceptance testing of each release. Problems with the application and with testing protocols will be identified early.
- ***Independent QA*** – OSP will acquire the services of a QA consultant who independently reviews project plans, specifications, and work products and provides independent verification and validation of project work products and operations.

Consequences of Taking No Action

The following points describe the consequences of taking no action with regard to the replacement of the CRIMEvue environment:

- ***Increasing Public Safety and Officer Safety Risk*** – CRIMEvue will fail. Basic hardware replacement and technical skills retention issues puts the safety of the public and law enforcement officers at increasing risk due to an increasing likelihood of a systems failure. One day, an outage will occur that cannot be easily recoverable due to hardware or software issues and limited support capability to recover. When this happens, a very real risk to safety occurs.

- ***Criminal Access to Vulnerable Populations*** – Data quality in the criminal records will continue to be largely incomplete and inaccurate unless new methods for interacting with data contributors are implemented. The decisions made from this data include those dependent on background checks that allow access to vulnerable populations.
- ***Delayed Access to Civil Liberties*** – With the low data quality in CRIMEvue today, many manual processes have been put into place to verify records that are incomplete. This delays access to background checks for items such as firearms permits and commerce, employment checks, and other liberties.
- ***Incorrect Criminal Sentencing*** – Jail sentencing calculations depend on an accurate record of arrests and prosecution. CRIMEvue's inability to align with partner business processing rules causes issues that contribute to inaccuracies in data that is used to calculated prison and jail sentences.
- ***Continued Degradation of Service*** – CRIMEvue will fall further behind in its ability to meet the needs of stakeholders and governing doctrines, eventually becoming unsupportable.
- ***Perpetuation of an Operational Model Devoid of Transparency*** – One of CRIMEvue's key struggles is that it was never designed to provide basic operation metrics or measurements. Further, the ability to provide measures relating to how well OSP conducts business within its CJIS program is not available. This has made it difficult for OSP to express operations in a manner that is manageable and communicable. Perpetuating these poor business practices will push OSP further out of alignment with basic business practices and operational transparency required of all government.

As shown above, there are very real risks associated with perpetuating the current state of operations.

Appendices and References

APPENDIX A – High-Level Requirements

CRIMEvue Major Business Functions

The table below provides a listing and overview of the high-level business processes, customers of those processes, and outputs that exist in the current CRIMEvue environment as a part of its CCH business operations.

Process	Customer(s)	Output
Fingerprint-Based Background Check (Electronic and Manual)	• Criminal justice agencies. • Non-criminal justice agencies. • Public. • Nonprofit agencies.	• RAP sheet. • No record response. • Reject response.
Name and Date of Birth Background Check (U.S. Postal Service and Internet)	• Criminal justice agencies. • Non-criminal justice agencies. • Public. • Nonprofit agencies.	• RAP sheet. • No record response. • Reject response.
Fiscal Receipts, Billing, SOR Reimbursements	• Criminal justice agencies. • Non-criminal justice agencies. • Public. • Nonprofit agencies.	• Deposit statement. • A19 billing. • Invoice.
Criminal History Training and Auditing	• Criminal justice agencies. • Non-criminal justice agencies. • Nonprofit agencies.	• Fingerprint rolling class. • How to Read a RAP sheet class. • Live scan installation. • Audit compliance letter.
Notary	Public.	Notary letter.
Criminal History Modifications Such as Expungements, Juvenile Seals, Vacates, Pardons	• Individuals. • Courts. • Attorneys. • Governor's office.	Updated criminal history information in CCH.
Record Review	Individuals.	Review of RAP sheet.
Compromised Identity Claim	Individuals.	Registration card and letter to customer.
Sex and Kidnapping Offender Registry	Counties.	New or updated registration information in CCH.
Disposition Entry	Courts.	New or updated disposition information in CCH.
Disposition Compliance Audit	Criminal justice agencies.	Compliance report.
Criminal Arrest Cards	Criminal justice agencies.	New or updated arrest information in CCH.

Process	Customer(s)	Output
Correction Notices	Criminal justice agencies.	New or updated arrest information in CCH.
Document Imaging and Retrieval	Internal.	Archived record, copy of document.
LEMS	Criminal justice agencies.	• Query responses. • Security logs. • Training certifications.
Crime Information Submissions and Queries	Law enforcement.	• Hot files. • Query responses.

Technical Standards

The table below lists the standards that are specifically applicable to implementation and operation of the replacement environment.

Ref.	Standard/Policy	Objectives
1	FBI's NCIC 2000	• Message keys. • Code values. • Inquiry response time. • III response time. • Record entry. • Equipment and technology compatibility. • System and service availability. • Others.
2	FBI's CJIS Security Policy	Minimum security requirements for CJIS data in the following areas: • Access. • Transmission. • Processing. • Storage.
3	Oregon ETS Standards	• Seamless data and application sharing. • 24/7 service delivery. • Standards-based systems. • Stability over 10-year period. • System uptime.
4	Oregon ETS Security Policy	• Minimize system vulnerability. • Protect information. • Promote security requirements. • Breach response.
5	Oregon ETS Management Code	• IT purchase rules and regulations. • IT procurement approval guidelines.

Ref.	Standard/Policy	Objectives
6	Oregon ETS Cyber Security Program and Policies	System requirements and guidelines for the following areas: • Incident response. • Risk management. • Disaster recovery. • Vendor management. • Network operations. • Systems and applications security. • Operations. • Access control. • Change control. • Physical security. • Data handling and disposal. • Personnel security. • Acceptable use. • Online privacy. • Security training and awareness. • Self-assessment. • Metrics and measurements. • Mobile security. • Wireless security.
7	National Information Exchange Model (NIEM)	A framework to: • Identify information-sharing requirements. • Develop standards and information exchange packages. • Provide technical tools to support reuse of exchange information. • Provide training, assistance, and support for enterprise-wide information exchange.
8	Global Justice XML Data Model (GJXDM)	• Data model for the exchange of criminal justice information. • XML data schema (Global Justice XML Data Dictionary [GJXDD]).
9	DMPP-2020 Systems Interface Standard	This interface control specifies how outside agency systems can connect their systems to CRIMEvue. An example of this would be local and/or regional 911 dispatch systems and local records management systems that routinely interface with CRIMEvue.

Transaction Types

Stakeholders access the CRIMEvue environment by using action types through their preferred vendor-supplied user interfaces. The majority of these transaction types follow the NCIC format.

The table below lists each transaction type (both records and messaging) that must be available in the target environment, as well as a description of each action.

Ref.	Transaction Type	Description
Records		
1	Query	Users submit requests for information on a variety of records.
2	Entry	Users enter data into the system. This data is routed to appropriate systems and databases.
3	Modify	Users amend existing records with additional information not populated during the initial record entry.
4	Supplemental Entry	Some commands are amended by use of a supplemental entry command.
5	Locate	Locate commands are used to search existing records for a specific article, person, offender, vehicle, etc.
6	Cancel	Users cancel records that are incorrect or no longer valid.
7	Validation	Validation commands are used to validate records data and responses received from other systems interconnected with LEDS.
8	Clear	Clear function is a transaction available in all files but only used in regard to protection orders and sex offender registration, which allows the record to remain in the system to be viewed by other law enforcement, but does not show record as active.
Messaging		
9	Messages	Message commands allow users to send individual or broadcast messages to a specific terminal or to all agencies that access the system.
10	Bulletins	Notices from other states (weather/road conditions; vehicle law summaries; descriptions of: DMV files, CCH files, boat information, Homeland Security bulletins) are posted.
11	Other	Based on the interconnection, a variety of other commands are available. These commands give users access to other systems interfaced to LEDS.

CRIMEvue Record Groups

The table below addresses the general record groups that must be available and that will be used most commonly in the future CRIMEvue environment.

Ref.	Record Group	Description
Persons		
1	Wanted	To place an individual's record in NCIC and/or LEDS, making the information available to authorized criminal justice agencies. Inquiry will search the wanted person, registered sex offender, correction client/supervised release, missing person, protection order, violent gang and terrorist organization, foreign fugitive, Secret Service protective, deported felon, vehicle, vehicle incident, and the LEDS economic crime index files.
2	Missing	To place information into LEDS and NCIC in order to help locate missing persons and aid in the identification of persons entered in the NCIC unidentified person file.

Ref.	Record Group	Description
3	Unidentified	To provide descriptive information concerning an unidentified living or deceased person or located body parts.
4	Sex Offender	To enter SOR information into NCIC and LEDS on individuals who have been convicted of crimes sexual in nature. Used to attach modus operandi information to a base LEDS-registered sex offender or to-be-registered sex offender.
5	CCH	To provide local criminal history record information and centrally coordinate the exchange of all arrest data, including records that would not warrant entry into III.
6	Protection Orders	To enter all protection orders in LEDS/NCIC before the protected person has been served or has received notification of the order.
Property		
7	Articles	To place articles that have been lost, stolen, used in unsolved crimes, impounded, pawned, or registered to aid in their return if stolen in NCIC and/or LEDS in order to make them available to authorized criminal justice agencies.
8	Boat	To place information about stolen, lost, impounded, towed, repossessed, or tagged boats, boat parts, and boat trailers in NCIC and/or LEDS in order to make it available to authorized criminal justice agencies.
9	Guns	To place information about stolen, lost, impounded, or pawned guns or guns of other interest to law enforcement agencies in NCIC and/or LEDS in order to make it available to authorized criminal justice agencies.
10	License Plates	To provide information concerning license plates that have been lost or stolen or are of interest to law enforcement agencies (LEAs). To enter license plates reported as lost or used in a misdemeanor or felony that have been found or that may be on a vehicle deemed hazardous or a vehicle driven by a person for whom there is an emergency message.
11	Securities	To provide information concerning securities that have been stolen, embezzled, or counterfeited.
12	Vehicles	To enter vehicles of interest in NCIC and/or LEDS, including those reported as stolen, involved in the commission of a crime, used by the criminal, reported as a carjacking, tagged because of abandonment, impounded, repossessed, towed, or pawned; those believed to be hazardous; or those for which an emergency message exists for the driver and/or occupants. Included in the file are vehicle/boat parts.
Other Files		
13	LEDS Files	Files accessed by LEDS users, including: Intelligence, Crime Index, Economic Crime Index, All Files Query, and Lab Status Query.
14	Corrections	Used to track convicted persons on probation or supervised release.
15	Nlets	Queries are routed through Nlets to check databases in other states and Canada.
16	NCIC	All general files and records available to the law enforcement and criminal justice community on the federal level.

Ref.	Record Group	Description
17	Brady NCIC	Under Section 103(b) of the Brady Handgun Violence Prevention Act, established the NICS.
18	UCR/NIBRS/ONIBRS	NIBRS is an incident-based reporting system for crimes known to the police. For each incident that is reported to law enforcement, a variety of data is collected about the incident. The data includes the nature and types of specific offenses in the incident, characteristics of the victim(s) and offender(s), and types and value of property stolen and recovered. Currently, Oregon uses a hybrid process of collecting crime statistics at both the OUCR and ONIBRS levels. Oregon is currently reviewing this hybrid approach and working with stakeholders and the FBI to provide a single format that meets federal requirements and is achievable for collecting crime reporting data.
19	Criminal Justice Information Section	This section of OSP is responsible for ABIS and the archiving of all fingerprint cards that have been automated and used to update the CCH files in CRIMEvue. All criminal arrest information, based on fingerprint cards, is forwarded to the FBI for entry into NCIC for criminal identification.
20	OSP Investigations	OSP provides investigative assistance in a wide range of criminal incidents including homicide, arson, sexual assault, burglary, theft, and narcotics. OSP assists local agencies in any of these functions at the specific request of a police department, sheriff's office, or the district attorney's office.
21	OSP Forensics Division	The OSP Crime laboratory system provides forensic analytic assistance to LEAs throughout Oregon. Crime scene support is also provided for certain types of criminal investigations. This accounts for the information shared with LIMS.
22	Training	Department of Public Safety Standards and Training commands are used to query, modify, and cancel training records.

APPENDIX B – Interview List

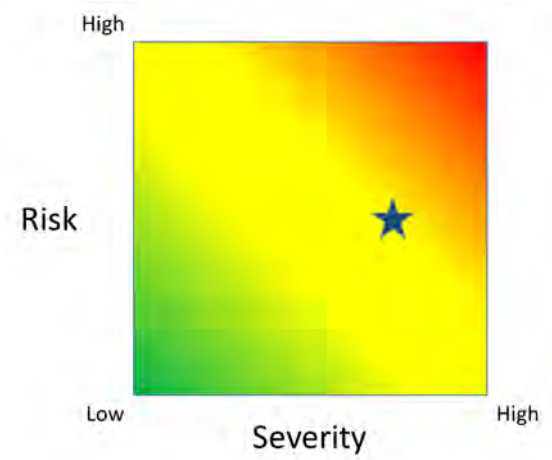
Between November 2014 and February 2015, MTG conducted a series of facilitated group sessions and individual interviews with a number of CRIMEvue stakeholders from OSP and related state agencies. Additionally, OSP conducted a user survey, to which there were 235 respondents. Specific interviews and group session participants are listed below.

ID	Name	Agency/Group	Title
1	Major Mike Bloom	OSP – GHQ	Major
2	Capt. Thomas Worthy	OSP – GHQ	Captain
3	Ms. Terri Barczak	OSP	CRIMEvue Project Manager
4	Mr. David Alamein	OSP - IT	CIO
5	Ms. Linda Anderson	OSP - IT	CRIMEvue Project Manager
6	Mr. Jerold Martin	OSP – IT	Applications Team/CAD -Dispatch Support
7	Mr. Jeff Burhans	OSP – IT	Systems Analyst
8	Mr. John Tobey	OSP – IT	Systems Analyst
9	Ms. Linda King	OSP – CJIS	ABIS Program Manager
10	Mr. Robert Barnett	OSP – CJIS	ABIS Criminal Support Services Supervisor 3
11	Ms. Lisa Miller	OSP – CJIS	ABIS Regulatory Support Services Supervisor 3
12	Mr. Jeff Clabaugh	OSP – GHQ	SOR Program Manager
13	Mr. Dave Piercy	OSP – CJIS	FICS Program Manager
14	Ms. Lori Barnes	OSP – CJIS	FICS Support Services Supervisor 3
15	Ms. Rebecca David	OSP – GHQ	Central Records Program Manager
16	Ms. Kristin Mauro	OSP – CJIS	OUCR/CCH Program Manager
17	Ms. Patricia Whitfield	OSP – CJIS	Director
18	Mr. Mathew Oeder	OSP – CJIS	CJIS Programs Manager
19	Mr. Steven Hathaway	OSP – IT	Systems Software Analyst
20	Mr. Kevin Silbernagle	OSP – IT	IT Systems Section Manager
21	Mr. Dave Komanecky	DAS	Solutions Architecture Team Lead
22	Mr. Wayne Smith	DAS	Technical Architect
23	Ms. Jennifer Bjerke	DAS	Strategic Technology Officer
24	Ms. Janie Schutz	Forest Grove Police Department	Chief of Police
25	Ms. Bettina Davis	ODOC	CIO

ID	Name	Agency/Group	Title
26	Mr. Roy Bruce	ODOC	IT Administrator
27	Ms. Kelly Officer	Criminal Justice Commission	Research Analyst
28	Mr. Jim Conlin	OJD	Deputy CIO
29	Mr. Jeff Akin	Department of Human Services (DHS)	National Background Check Program (NBCP) Grant Manager
30	Mr. Dan Malin	OSP – CJIS	LEDS Auditor
31	Laurie Riesterer	OSP – CJIS	CCH Public Service Representative 4
32	Gina Gibson	OSP – CJIS	CCH Support Services Supervisor 3
33	Janet Robinson	OSP – CJIS	CCH Support Services Supervisor 3
34	Nancy Sharp	OSP – CJIS	Operations and Policy Analyst 2
35	Jennifer Hlad	OSP – CJIS	LEDS Training Coordinator

APPENDIX C – Risk Assessment

The Department of Administration calls on agencies to assess the risk of the recommended investment using a common portfolio-based Severity and Risk standard. The recommended approach has been assessed using one of these standardized tools. The diagram below summarizes the risk and severity overall.



Overall Risk Rating

This project is potentially high impact and as such has a relatively high severity rating. At the same time, it is of medium risk overall. The detailed, standards-based assessments for this project are presented below.

Risk Assessment

The risk model ranks investments on four dimensions: organizational impact, development effort, technology, and organizational capability. The table below presents the risk assessment for the CRIMEvue replacement project based on this standard.

Functional Impact on Business Processes or Rules	Project Resources and Implementation Effort	Technology	Capability & Management
High	**High**	**Low**	**Low**
• Multiple agencies are affected. • One or more organizations outside of state government are affected.	• Detailed requirements, detailed design, development, and implementation exceed 24 months. • Requires more than one funding cycle to obtain funding for project. • Requires new project management resources and business and technical analysts.	• Proposed technology is no more than one major version back. • Proposed technology is supported by ETS. • Service bus requirements open options to better interact with partners.	• Executive sponsors have a clear vision of vendor expectations. • Executive sponsors are reasonably empowered for decision making and delegation. • Deep technical support will be the domain of the selected vendor.

The project exhibits both high and low risk characteristics, according to the standard. Two of the four categories are high-risk, and the other two are low-risk.

Risk Severity

The risk model also considers severity. Severity criteria rank investments on four dimensions: impact on citizens, visibility to the public and legislature, impact on state operations, and the consequences of doing nothing. The severity assessment for this project is presented below.

Impact on Citizens	Visibility	Impact on State Operations	Failure or Nil Consequences
High	**High**	**High**	**Low**
• Direct use by political subdivisions. • Direct use by citizens (public records).	• Confidential data. • Over 25,000 registered users.	• Multiple state, local, and regional agency impact.	• Loss of opportunity for improved service delivery and efficiency. • Increased probability of emergency repairs, at great expense.

The level of severity in each category is assessed based on the existence of one of the severity criteria described in the standards. The rating is based on the highest criteria met by the project. As noted in the table, this project meets a high severity standard across three of the four categories.

APPENDIX D – Market Cost Estimations

This appendix provides the Market Cost Estimations report dated November 18, 2014.

Oregon State Police

CRIMEvue Business Case Development

Market Cost Estimations

November 18, 2014

MTG Management Consultants, LLC
401 Second Avenue South, Suite 240
Seattle, Washington 98104-3858
206.442.5010 206.442.5011 *fax*
www.mtgmc.com

Document Purpose

This document presents high-level budgetary placeholder costs for the replacement of the Oregon State Police (OSP) maintained Computerized Criminal History (CCH), Message Switching System (MSS), and Hot Files (HF) systems.

Version	Date	Description/Changes
1.0	11/18/2014	Initial draft.

TABLE OF CONTENTS

Page

I. Executive Summary

MTG Management Consultants, LLC, is pleased to present this document outlining budgetary placeholder costs for the replacement of the Oregon State Police (OSP) -maintained Computerized Criminal History (CCH), Message Switching System (MSS), and Hot Files (HF) systems.

A. Recommended Placeholder Costs

Complete commercial off-the-shelf (COTS) solutions can be purchased and implemented for less than $5 million. More custom solutions that may not encompass all aspects of the OSP environment range from $8 million to $10 million. OSP's needs relative to COTS vs. custom development are not fully understood. As such, for purposes of a +/- 50 percent budgetary estimate, we recommend a one-time capital placeholder of $10 million, and ongoing 5-year operational maintenance costs of $500.000.

B. Cost Caveats

Placeholder costs were garnered by engaging market vendors in an exercise to estimate costs based on very high-level overview of the OSP environment. Placeholder costs are nonbinding, and meant to be representative of costs from peer agencies of similar size and complexity. Specifically, costs listed here:

- Are nonbinding.
- Do not reflect internal OSP costs.
- Do not reflect recommended implementation assistance/quality assurance costs.
- Do not reflect the time value of money.
- Do not reflect any financing options.

It is also noted that not all vendors supply all aspects of the required solutions (CCH, MSS, and HF).

II. Vendor Response

The following subsections discuss the overall process used to engage the vendor marketplace as well as some basic analytics relative to their responses.

A. Process

As the business case effort is moving at a highly accelerated pace, vendors were allowed approximately 1 week to respond to an e-mail request for cost information. The e-mail contained some basic information regarding the request, as well an attachment of basic parameters and metrics for the current environment. The following appendices contain the inputs and outputs of this process:

- APPENDIX A contains a copy of the e-mail request to marketplace vendors.
- APPENDIX B contains a copy of the reference information sent to vendors in support of the cost estimation request.
- APPENDIX C contains copies of the vendor response letters.

B. Responding Vendors

MTG engaged six marketplace vendors via e-mail and phone discussions to request pricing for their CCH, MSS, and HF applications. The vendors engaged do not represent an exhaustive list of all possible solutions; however for purposes of placeholder pricing, the engaged vendors are established and known to serve this marketplace. Responding vendors are:

Vendor	Provided Response
Boeing	✓
Computer Projects of Illinois (CPI)	✓
Datamaxx	✓
Leidos	✓
Thinkstream	✓
Unisys	✓

C. Vendor Capabilities

The following table outlines how the vendors responded in terms of the systems they would likely propose to replace in a competitive bidding situation:

System	Boeing	CPI	Datamaxx	Leidos	Thinkstream	Unisys
Criminal History	✓	✓	✓	✓	✓	✓
Message Switch		✓	✓		✓	✓
Hot Files		✓	✓	✓	✓	✓

With some minor exceptions, the table above accurately reflects MTG's experience in this regard.

III. Cost Details

The following subsections outline market vendor placeholder costs, to the extent possible. These summaries form the basis for the cost placeholder recommendations outlined in Section I. For reference, areas shaded indicate solution items that the particular vendor does not provide.

Solution Not Provided

A. Boeing

System	Hardware	Software	Implementation	Capital Costs	Annual Maintenance
Criminal History	Not Specified	$7,900,000		$7,900,000	Not Specified
Message Switch					
Hot Files					
Totals		$7,900,000		**$7,900,000**	Not Specified

B. CPI

System	Hardware	Software	Implementation	Capital Costs	Annual Maintenance
Criminal History	$557,469	$ 965,000	Incl.	$ 965,000	$107,750
Message Switch		900,000 *175,000 (for GUI)*	Incl.	1,632,429	215,000
Hot Files		650,000	Incl.	650,000	49,500
Totals	$557,469	$2,690,000	Incl.	**$3,247,429**	**$372,250**

C. Datamaxx

System	Hardware	Software	Implementation	Capital Costs	Annual Maintenance
Criminal History	$500,000	$1,000,000	$2,000,000	$3,500,000	$240,000
Message Switch					
Hot Files					
Totals	$500,000	$1,000,000	$2,000,000	**$3,500,000**	**$240,000**

D. Leidos

System	Hardware	Software	Implementation	Capital Costs	Annual Maintenance
Criminal History	$100,000	$ 750,000	$2,000,000 to $7,000,000	$2,850,000 to $7,850,000	$200,000 to $400,000
Message Switch					
Hot Files	Incl.	1,000,000	Incl.	Incl.	Incl.
Totals	$100,000	$1,750,000	$2,000,000 to $7,000,000	**$2,850,000 to $7,850,000**	**$200,000 to $400,000**

Note: Leidos recommends procuring a MSS from a known COTS vendor as a means of cost-efficiency. Also, Leidos provided a range of implementation costs.

E. Thinkstream

System	Hardware	Software	Implementation	Capital Costs	Annual Maintenance
Criminal History	$525,000	$6,000,000 *1,350,000* *(For 3rd Party SW)*	$2,000,000	$9,875,000	$1,022,500
Message Switch		500,000	Incl.	500,000	
Hot Files		425,000	Incl.	425,000	
Totals	$525,000	$8,275,000	$2,000,000	**$10,800,000**	**$1,022,500**

Note: Thinkstream proposed costs for optional disaster recovery site hardware and software; those costs are not included above.

F. Unisys

System	Hardware	Software	Implementation	Capital Costs	Annual Maintenance
Criminal History	$250,000	$250,000	$100,000	$600,000	$150,000
Message Switch	250,000	250,000	1,000,000	1,500,000	100,000
Hot Files	750,000	750,000	10,000,000	11,500,000	416,667
Totals	$1,250,000	$1,250,000	$11,100,000	**$13,600,000**	**$666,667**

Note: Unisys provides the current OSP MSS. Pricing here assumes that the current MSS stays in place and will be maintained in accordance with the terms of the existing maintenance

agreement. The costs do, however, reflect costs associated with upgrading the MSS hardware environment.

* * * * * *

Appendix A
Market Vendor Pricing Request

Subject: Oregon State Police Request
Date: Monday, November 17, 2014 at 9:19:44 AM Pacific Standard Time
From: Chuck C. Collins
To: Chuck C. Collins

Dear Vendor X -

The Oregon State Police is planning for the replacement of their computerized criminal history system (CCH), message switching system (MSS), and hot files system (HF).

The initial step involves the development of a business case, for which MTG Management Consultants, LLC has been retained to prepare. Development of the business case is highly accelerated, needing to be complete by year-end.

In early December, OSP must present high-level cost figures to a legislative committee.

This e-mail respectfully requests the following:

-A one-page letter on company letterhead outlining estimated hardware, software, implementation services, and annual maintenance costs for 5-years.

-The letter can address any or all of the systems (CCH, MSS, and/or HF).

-We request this by close of business on 11/14/14.

-Please e-mail your letter to me: ccc@mtgmc.com, and address your letter to:

Captain Tom M. Worthy
Oregon State Police
General Headquarters
255 Capitol St. NE
Salem OR 97310

Attached is a summary of information regarding the current OSP environment for reference.

Participation in this process will ensure that you remain informed on OSP procurement progress.

On behalf of OSP and MTG, please accept our thanks for your participation and do not hesitate to contact me with any questions.

-Chuck

Charles C. Collins Jr., Senior Partner
MTG Management Consultants, L.L.C.
401 Second Avenue South, Suite 240
Seattle, Washington 98104
www.mtgmc.com
(206) 442-5010 *Phone*
(206) 898-2835 *Mobile*
(206) 442-5011 *Fax*
ccollins@mtgmc.com

Appendix B
OSP Reference Information (unofficial)

Oregon State Police Reference Information (unofficial)

A. Computerized Criminal History (CCH)

- Number of Unique Person Records: 1.6M
- Average Events per person: 2.9
- Automated Interfaces:
  - AFIS: Via Western Identification Network (WIN)
  - Court Dispositions: Via Oregon Judicial Department
  - Corrections: Via livescan
- Database contents:
  - Person (Criminal and applicant)
  - Arrest
  - Disposition
  - Correctional Status

B. Message Switch System (MSS)

- State Interfaces
  - Oregon Department of Justice
  - Oregon Health Authority
  - Psychiatric Security Review Board
  - Department of Human Services
  - Department of Motor Vehicles
  - Department of Corrections
  - Marine Board
- National Interfaces
  - NICS
  - Nlets
  - NCIC

C. Hot Files (HF)

- HF in use:
  - Wanted Persons (90k)
  - Missing Persons
  - Unidentified Persons

- Supervised Persons
- Identity Theft
- Securities File
- Stolen Vehicles
- Repossessed Vehicles
- Impounded Vehicles
- License Plate File
- Sex Offenders (25k registrants)
- Gun File
- Images
- Vehicle Parts File
- Article File
- DMV Photos
- Boat File
- Person of Interest
- Gang Affiliation
- Suspected Terrorist

D. Other

- National Fingerprint File (NFF) Participant
- Interstate Identification Index (III) Participant

Appendix C
Vendor Responses

BOEING

460 Herndon Parkway
Herndon, VA 20170

To: Captain Tom M. Worthy
Oregon State Police
General Headquarters
255 Capitol St. NE
Salem, OR 97310

From: Markie L. Hoffman
The Boeing Company
460 Herndon Parkway
Herndon, VA 20170

The Boeing Company is pleased to provide a non-binding cost estimate for the replacement of the computerized criminal history (CCH) system of the Oregon State Police (OSP), as delivered to MTG Consulting. The Boeing Company brings relevant and significant expertise to state-level law enforcement agencies in the development and integration of CCH systems.

The Boeing Entity Management Framework (EMF) is the underlying technology supporting Boeing's CCH product. The Boeing EMF allows for more effective processing of large amounts of information to identify objects and events of interest. The technology delivers a feature-rich application utilizing a flexible framework. The Boeing EMF allows CCH systems to easily adjust to evolving enterprise policies, as opposed to modifying policies to fit the CCH system. The Boeing EMF can be used as a standalone capability or as an add-on to any existing data discovery or search capability. This flexibility allows an organization to fully utilize existing technologies while adding the ability to structure data and track cases with the Boeing EMF.

The Boeing Company was recently awarded a state-level CCH contract of similar size and scope for $7.9M. The statement of work consists of a complete system replacement and integration to the existing IT infrastructure, data conversion, disaster recovery, public access web presence, and business process re-engineering with the customer to implement new workflows and optimize existing ones. Hardware was not included in the scope of the contract, and The Boeing Company would anticipate that hardware would be supplied by OSP.

The Boeing Company reasonably expects that work performed for the OSP would entail similar costs as discussed above.

The Boeing Company appreciates the opportunity to offer insight into the costs associated with implementing an effective CCH system. We look forward to continuing the discussion regarding the OSP's requirements of a CCH system.

Very respectfully,

Markie L. Hoffman
The Boeing Company
Contract Representative
(703) 270-6663

Proven Progress. Proven Protection.

The OpenFox Company

November 11, 2014

Captain Tom M Worthy
Oregon State Police
General Headquarters
255 Capitol St. NE
Salem, OR 97310

Captain Worthy,
Please find below, the high-level price estimates of the Computer Projects of Illinois, Inc. ("CPI") OpenFox® Message Switch, Criminal History Application, Hotfiles and Messenger Workstation products. The prices have been culled from five previous CPI Request for Proposal Responses over the past three years. While third-party costs (Hardware, Oracle) would most certainly need to be quoted, I have found the CPI prices for licensing and services has remained fairly consistent over the years. One unknown in the price estimates are the Oregon Specific customizations. While I included customization prices in my estimates, those estimates could increase or decrease once the actual Oregon-Specific customizations needed are known by CPI.

Hardware – initial price estimate - $557,469.00 includes:

- Server A – Primary Message Switch running Redhat Linux
- Server B – Primary CCH on Redhat Linux with Oracle
- Server C – Primary Hotfiles and Message Log on Redhat Linux with Oracle
- Server D – Failover for any and all of the other three servers
- Server E – Test and Development Server
- SAN – Ten TB of storage and databases

Includes Five years of warranty and maintenance for Hardware, Operating Systems (Linux and Oracle – Standard Edition)

Message Switch – initial price estimate - $900,000 includes:

- Licenses
- Interfaces (all will utilize the existing interface to limit the impact on external agencies, unless the target agency is ready to convert to a NIEM Compliant Web-Service) –OR DOJ, OR Health, OR Psychiatric, OR Human Services, OR DMV, OR DOC, OR Marine Board, NCIC (NCIC 2000, unless NCIC is ready for Web-Services), NICS, Nlets (Web Services)
- Customizations
- Message Archive

- Services – Admin Training, Installation, Documentation, PM, One CPI User-Group attendee, NCIC TOU's
- One Year Warranty included at No Charge
- Year 2 - $100,000
- Year 3 - $105,000
- Year 4 - $110,000
- Year 5 - $116,000

CCH – initial price estimate - $965,000 includes:

- Licenses
- Interfaces – WIN, OR Courts, OR Corrections
- Customizations including III, NFF
- Services – Admin Training, Installation, Documentation, PM, One CPI User-Group attendee, NCIC TOU's
- One Year Warranty included at No Charge
- Year 2 - $200,000
- Year 3 - $210,000
- Year 4 - $220,000
- Year 5 - $230,000

Hotfiles – initial price estimate - $650,000 Includes

- Licenses
- Files – including Wanted Persons, Missing Persons, Unidentified Persons, Supervised Persons, ID Theft, Securities, Stolen Vehicles, Repossessed Vehicles, Impounded Vehicles, License Plate File, Sex Offender File, Gun File, Images, Articles, DMV Photo's, Boat File, Person of Interest, Gang Affiliation, Suspected Terrorist
- Services – Admin Training, Installation, Documentation, PM, NCIC TOU's
- One Year Warranty included at No Charge
- Year 2 - $45,000
- Year 3 - $48,000
- Year 4 - $51,000
- Year 5 - $54,000

Optional – OpenFox® Messenger – NCIC Workstation (replaces ForceCom) initial price estimate - $175,000 includes:

- Unlimited licenses for non-mobile devices
- **Integration with NexTest from Peak Performance**
- Customizations
- Services – Admin Training, Installation, Documentation, PM, One CPI User-Group attendee, NCIC TOU's

- One Year Warranty included at No Charge
- Year 2 - $165,000
- Year 3 - $165,000
- Year 4 - $165,000
- Year 5 - $165,000

Please let me know if you need more granularity in these estimates and I will be happy to provide them to you.

Sincerely,

/s/ Marc J Smith

Marc J Smith, National Sales Manager
Computer Projects of Illinois, Inc.

Datamaxx®
GROUP

November 14, 2014

Captain Tom M. Worthy
Oregon State Police
General Headquarters
255 Capitol St. NE
Salem, OR 97310

Re: Oregon State Police Reference Information

Dear Captain Worthy:

Datamaxx Group, Inc. ("Datamaxx") respectively submits our ROM (Rough Order of Magnitude) pricing in response to the MTG request and Oregon State Police Reference Information sheet including the following pricing information:

Oregon State Police
ROM – On Premise Solution

Hardware $500,000
Software $1,000,000
Implementation Services $2,000,000
5 Years Annual Maintenance $1,200,000

Datamaxx recommends that MTG and Oregon State Police ("OSP") consider a Datamaxx Secure Cloud option for this request wherein considerable cost savings would apply to the above on premise pricing. Datamaxx has enjoyed a positive lengthy relationship with the experts at MTG as well as OSP as Datamaxx has performed technical discovery and documentation work on the Oregon systems in the past. Datamaxx feels confident that with our expertise and knowledge as well as our technology and secure cloud offering, we can deliver the most comprehensive and cost effective solution available today. Datamaxx stands ready to discuss this opportunity with MTG and OSP as necessary.

On behalf of Datamaxx, we thank you for the opportunity to respond to this request. We look forward to hearing back from MTG and the Oregon State Police.

Respectfully submitted,

DATAMAXX GROUP, INC., d/b/a
DATAMAXX APPLIED TECHNOLOGIES, INC.

Stephani Miller
Executive Vice President
(850) 558-8510

November 17, 2014

leidos

Captain Tom M. Worthy
Oregon State Police
General Headquarters
255 Capitol St. NE
Salem, OR 97310

Dear Captain Worthy,

Leidos is excited to provide the State of Oregon with updated information on our Automated Law Enforcement Information Access System (ALIAS™). Oregon has operated version 1 of our ALIAS™ platform for Computerized Criminal History (CCH) and Hot Files (HF) since 1999. Leidos has continued to evolve the ALIAS™ platform over the last 15 years while maintaining performance and reliability. This high level estimate is to upgrade the State CCH and HF to our current Commercial Off The Shelf (COTS) ALIAS™ Version 5.

ALIAS™ Version 5 has been built on the ALIAS™ Agile Architecture. The ALIAS™ Agile Architecture exposes the capabilities of the system as highly scalable web services. The ALIAS™ web services rely on the ALIAS™ Rule Engine allowing for customization of the system without modifying the underlying software. Systems can integrate with the services and end users can access all of the capabilities from the ALIAS™ Graphical User Interface (GUI).
Several additional features have been added to ALIAS™ version 5 including:

- Integrated Document Management
- Multi-Factor Authentication and Authorization using Microsoft Active Directory
- Workflow and Message Queuing for Users, Computers, Agencies and Groups
- Enterprise Service Bus (ESB) to integrate with State and Federal Systems

The ALIAS™ ESB has the ability to send all CCH and Hot Files messages to III/FBI, NCIC 2000, and NLETS. However to provide a robust message switch solution for Oregon State Systems Leidos would prefer to team with an established switch vendor.

The ALIAS™ CCH solution contains all capabilities to maintain criminal records, applicants, fingerprint cards along with rap sheets and rap back. The ALIAS™ CCH is NFF compliant and comes with a smart client graphical user interface. The ALIAS™ GUI does not require any additional redistribution licenses.

The ALIAS™ Hot Files Solution contains all of the capabilities of NCIC 2000 and is designed to seamlessly integrate State and Federal Hot Files. All Hot File capabilities are available from the ALIAS GUI and by interfaced systems.

Leidos will provide implementation services to Oregon to insure a graceful implementation. Leidos will provide our CCH and Hot Files subject matter experts to map the State requirements to the capabilities of the ALIAS™ platform and determine configuration, customizations and interfaces required by the State. Leidos will convert the existing CCH and Hot Files data to the ALIAS™ v5 data structures and will provide cutover and training services.

ALIAS™ runs on standard windows servers. We have priced out the hardware for Production, Training, and Testing environments using Dell hardware. This is representative hardware and the software is not tied to this specific environment. It is likely that the State already has a Storage Area Network device with sufficient storage however we have provided the cost for a suitable device. The two R820 servers will be clustered in Hyper-V to provide a fully redundant virtual environment with automatic failover for production. The R820 will use Hyper-V to provide additional training and testing environments.

Hardware / Software	Amount
Dell PowerEdge R820 with 2 Xeon E5-4620 CPU and 128 GB RAM	2
Dell PowerEdge R820 with 2 Xeon E5-4610 CPU and 96 GB RAM	1
Dell PowerVault MD3860f with 20 600 GB Drives	1
Windows Server 2012 R2 Standard (4 CPU)	3
SQL Server 2014 Standard	3
Windows Server 2012 R2 Data Center (2 CPU)	1
Windows Server 2012 R2 Standard (2 CPU)	1

Our initial high-level cost estimates are as follows:

Solution	Estimated Cost
Statewide Unlimited Redistribution License for ALIAS™ CCH	$750,000 *

Statewide Unlimited Redistribution License for ALIAS™ HF	1 M *
Implementation Services	2-7 M †
Hardware, Operating Systems and Database Software	$100,000
5 Year Support Agreement with Upgrades	1-2 M ◊

* These are 2014 market rates for the ALIAS™ COTS License prior to negotiation. Leidos can also offer Per Seat or Per Core license rates or provide a discount if multiple modules are purchased together.

† OSP will control the cost of implementation services based upon the level of customization required to the base CCH and HF solutions.

◊ Leidos offers multiple levels of support and the per-year cost is affected by the amount of customization performed on the base product. This estimate assumes OSP will remain current with upgrades to the ALIAS™ COTS products

Should you have any questions please contact me at 443.367.7506. We look forward to hearing from you.

Sincerely,

Hilary S. Stephens
Business Area Manager
Leidos, Inc.

November 11, 2014

Captain Tom M. Worthy
Oregon State Police
General Headquarters
225 Capitol St. NE
Salem, OR 97310

Dear Captain Worthy,

Thank you for affording Thinkstream the opportunity to provide a cost estimate for your upcoming CCH, MSS and Hotfiles replacement project. Given the limited information we were provided to estimate cost, we believe there is a +-25% margin of error in our estimate.

Functional Area		**Estimated Cost**
1	CCH Cost Planning Figure	$ 6,000,000.00
2	Message Switch Cost Planning Figure	$ 500,000.00
3	Hot Files Cost Planning Figure	$ 425,000.00
4	Hardware Primary Site	$ 525,000.00
5	3rd Party Software Costs	$ 1,350,000.00
6	Services (installation of hardware/software, training, data conversation)	$ 2,000,000.00
7	(Optional) Disaster Site Hardware	$ 125,000.00
8	(Optional) Disaster Site CCH Software	$ 450,000.00
9	(Optional Additional) Switch Terminal Interfaces (100 Included w/ Switch)/User	$ 280.00
10	Total (without options)	$ 10,800,000.00
11	Maintenance Annual (10%)	$ 1,080,000.00

Should we be able to be of further assistance, please don't hesitate to contact us. Otherwise, we look forward to responding to your procurement and hope to have the opportunity to enter into a long lasting and mutually beneficial relationship with your agency.

Best regards,

Oliver Oetterer
(203) 491-8650
oo@thinkstream.com

Unisys Corporation
11720 Plaza America Dr
Reston, Virginia 20170
mike.hulme@unisys.com

703 439 5395
703 439 3724 Fax

UNISYS

Captain Tom M. Worthy
Oregon State Police
General Headquarters
255 Capitol St. NE
Salem OR 97310

Dear Captain Worthy:

Unisys understands that the Oregon State Police is seeking budgetary costs to replace your Message Switching System (MSS), Computerized Criminal History (CCH) System, and Hot Files (HF) System. Unisys provides solutions and services to implement these systems and we are pleased to provide budgetary costs for hardware, software, implementation services, and annual maintenance.

As you know, the OSP has successfully used the Unisys Law Enforcement Message Switch (LEMS/JX) as the heart of your MSS since 2004. LEMS/JX has been continuously improved and enhanced in the last decade to meet new business and technology needs, and we believe LEMS/JX will continue to meet your MSS needs well into the future. Product upgrades for these improvements and enhancements are included in the product annual maintenance price. Therefore, our pricing for the MSS includes only the new hardware and system software to re-host LEMS/JX along with the annual maintenance cost. By continuing to use LEMS/JX as your MSS, the OSP will benefit from no additional application software licensing costs, dramatically lower implementation cost, and dramatically lower risk since it eliminates the need for a transition.

Unisys also provides an HF solution, initially developed for the Commonwealth of Pennsylvania, that is already integrated with LEMS/JX. It is architected using Microsoft .NET and SQL Server technologies. The solution is highly configurable and customizable to meet the OSP's specific HF needs. It is designed to reliably maintain near real-time data synchronization with related systems, such as the FBI NCIC hot files and the CCH. Because the HF application software was developed at Pennsylvania's expense, there are no application software licensing fees, again resulting in a lower cost to the OSP.

Finally, Unisys offers a proven CCH solution, also initially developed for the Commonwealth of Pennsylvania and available without application software licensing fees. Like the HF solution, it is architected using Microsoft .NET and SQL Server technologies, including SQL Server Reporting Services, and is already integrated with LEMS/JX. It has been in production use since 2007, and we have continued to improve and enhance the solution to meet new business needs and refresh the technologies used. It supports configuration of business processes such as consolidation and expungement, and our solution roadmap continues to improve the configurability of business processes (including workflows) and business rules.

All three of these solutions implement key security and integration standards, including the FBI CJIS Security Policy, Global Reference Architecture (GRA), and National Information Exchange Model (NIEM).

Please refer to the table below for the recommended budgetary costs.

Recommended Budgetary Costs for Oregon State Police

Solution	Hardware	Software	Implementation Services	5 Years Annual Support
MSS	$250,000	$250,000	$100,000	$750,000
HF	$250,000	$250,000	$1,000,000	$500,000
CCH	$750,000	$750,000	$10,000,000	$5,000,000

Procuring all three solutions from Unisys can provide additional cost savings.

Unisys understands that this response will be reviewed by the OSP for informational purposes only and that no contract will be awarded based on this response. Unisys cost estimates provided in this response are nonbinding and all information contained herein may be subject to change without notice.

Regards,

Mike Hulme
Architecture Director, Public Safety & Justice
Unisys Corporation

APPENDIX E – CRIMEvue User Survey Results

This appendix present the results of the CRIMEvue User Survey.

OSP CRIMEvue User Survey Results

January, 2015

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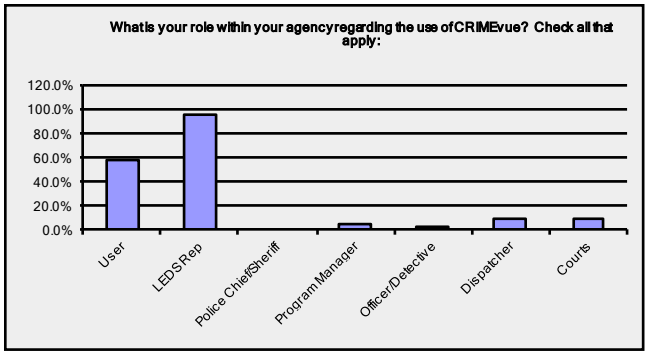
Question 1

CRIMEvue Customer Satisfaction Survey

What is your role within your agency regarding the use of CRIMEvue? Check all that apply:

Answer Options	Response Percent	Response Count
User	58.5%	137
LEDS Rep	95.7%	224
Police Chief/Sheriff	0.0%	0
Program Manager	3.4%	8
Officer/Detective	2.1%	5
Dispatcher	9.0%	21
Courts	9.8%	23
Other (please specify)		25
answered question		234
skipped question		1

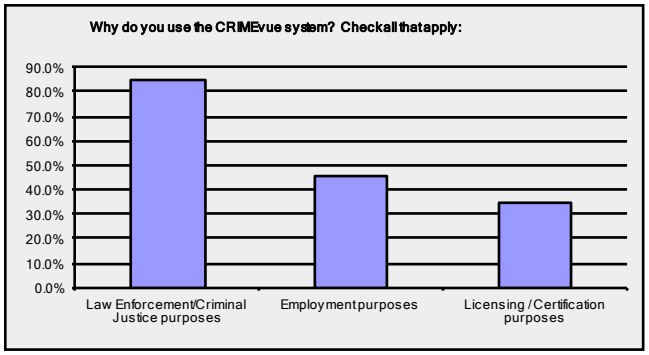


Question 2

CRIMEvue Customer Satisfaction Survey

Why do you use the CRIMEvue system? Check all that apply:

Answer Options	Response Percent	Response Count
Law Enforcement/Criminal Justice purposes	84.6%	193
Employment purposes	45.2%	103
Licensing / Certification purposes	34.6%	79
Other (please specify)		15
answered question		228
skipped question		7

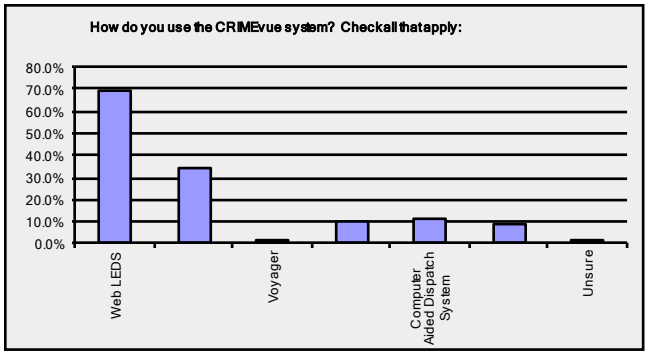


Question 3

CRIMEvue Customer Satisfaction Survey

How do you use the CRIMEvue system? Check all that apply:

Answer Options	Response Percent	Response Count
Web LEDS	68.9%	162
ForseCom	34.5%	81
Voyager	0.4%	1
Records Management System	10.6%	25
Computer Aided Dispatch System	11.9%	28
Mobile Data Terminal System	8.9%	21
Unsure	2.1%	5
Other (please specify)		8
answered question		235
skipped question		0

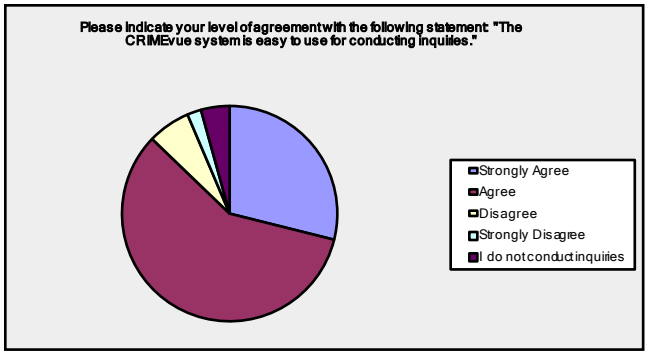


Question 4

CRIMEvue Customer Satisfaction Survey

Please indicate your level of agreement with the following statement: "The CRIMEvue system is easy to use for conducting inquiries."

Answer Options	Response Percent	Response Count
Strongly Agree	28.9%	68
Agree	58.3%	137
Disagree	6.4%	15
Strongly Disagree	2.1%	5
I do not conduct inquiries	4.3%	10
answered question		235
skipped question		0

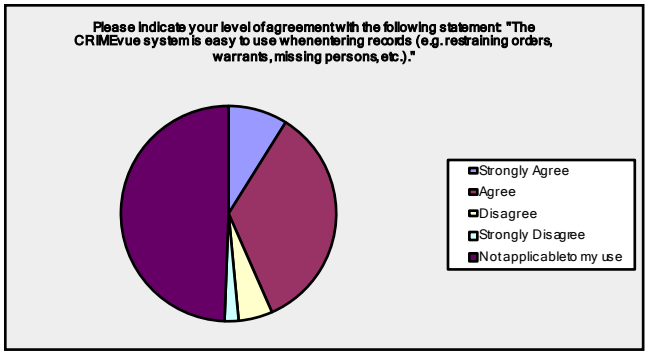


Question 5

CRIMEvue Customer Satisfaction Survey

Please indicate your level of agreement with the following statement: "The CRIMEvue system is easy to use when entering records (eg. restraining orders, warrants, missing persons, etc.)."

Answer Options	Response Percent	Response Count
Strongly Agree	8.9%	21
Agree	34.5%	81
Disagree	5.1%	12
Strongly Disagree	2.1%	5
Not applicable to my use	49.4%	116
answered question		235
skipped question		0

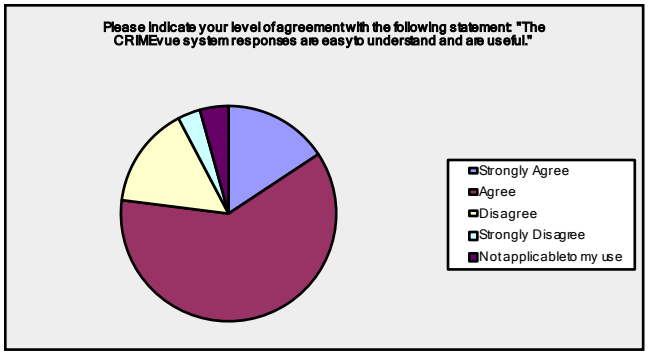


Question 6

CRIMEvue Customer Satisfaction Survey

Please indicate your level of agreement with the following statement: "The CRIMEvue system responses are easy to understand and are useful."

Answer Options	Response Percent	Response Count
Strongly Agree	15.7%	37
Agree	61.3%	144
Disagree	15.3%	36
Strongly Disagree	3.4%	8
Not applicable to my use	4.3%	10
Other (please specify)		24
answered question		235
skipped question		0

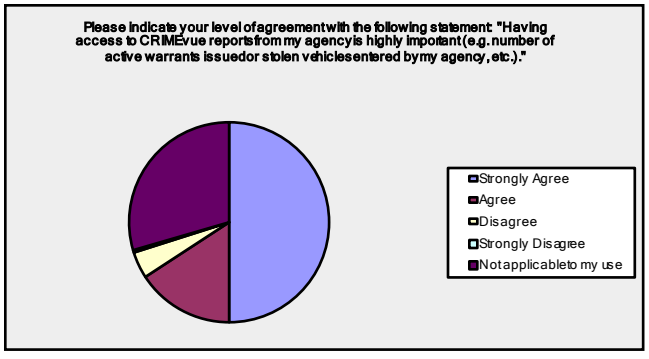


Question 7

CRIMEvue Customer Satisfaction Survey

Please indicate your level of agreement with the following statement: "Having access to CRIMEvue reports from my agency is highly important (e.g. number of active warrants issued or stolen vehicles entered by my agency, etc.)."

Answer Options	Response Percent	Response Count
Strongly Agree	50.0%	117
Agree	15.8%	37
Disagree	4.3%	10
Strongly Disagree	0.4%	1
Not applicable to my use	29.5%	69
Other (please specify)		12
answered question		234
skipped question		1

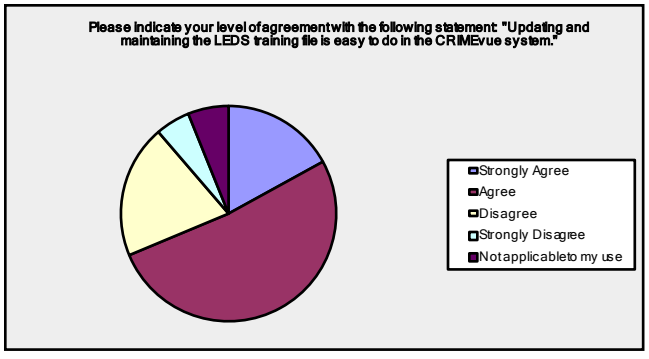


Question 8

CRIMEvue Customer Satisfaction Survey

Please indicate your level of agreement with the following statement: "Updating and maintaining the LEDS training file is easy to do in the CRIMEvue system."

Answer Options	Response Percent	Response Count
Strongly Agree	17.0%	39
Agree	51.7%	119
Disagree	20.0%	46
Strongly Disagree	5.2%	12
Not applicable to my use	6.1%	14
Other (please specify)		30
answered question		230
skipped question		5



Question 9

CRIMEvue Customer Satisfaction Survey

Any additional comments:	
Answer Options	**Response Count**
	38
answered question	38
skipped question	197

APPENDIX F – Business Case Financials

This appendix provides spreadsheets and graphs pertaining to the Business Case financials.

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE
ALTERNATIVE 1 - DO NOTHING (BASELINE) CASH FLOW

ALTERNATIVE 1 (Do Nothing) CASH FLOW

$ in 1,000s

				Discount rate	Discount rate	0.0%
	Fiscal Biennia Ending					
$ in 1,000s	Jun 30 2017	Jun 30 2019	Jun 30 2021	Jun 30 2023	Jun 30 2025	TOTAL
BENEFITS / GAINS						
Benefit item 1	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 2	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 3	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 4	0.0	0.0	0.0	0.0	0.0	0.0
Total Benefits/Gains	0.0	0.0	0.0	0.0	0.0	0.0
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	(1438.0)	(3924.0)	(3039.0)	(3191.0)	(3350.5)	(14942.4)
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	0.0	0.0	0.0	0.0	0.0	0.0
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	(46.4)	(51.0)	(56.1)	(61.8)	(67.9)	(283.3)
Hosting	(46.4)	(51.0)	(56.1)	(61.8)	(67.9)	(283.3)
Storage	(46.4)	(51.0)	(56.1)	(61.8)	(67.9)	(283.3)
Network	(46.4)	(51.0)	(56.1)	(61.8)	(67.9)	(283.3)
Software Costs						
SW Purchase/Upgrade	(25.0)	(26.3)	(27.6)	(28.9)	(30.4)	(138.1)
SW License Maintenance	(211.0)	(221.6)	(232.6)	(244.3)	(256.5)	(1165.9)
Hardware Costs						
Hardware Purchase/Upgrade	(25.0)	(26.3)	(27.6)	(28.9)	(30.4)	(138.1)
Hardware Ongoing Maint	(45.0)	(47.3)	(49.6)	(52.1)	(54.7)	(248.7)
IT Professional Services						
Project Dev/Implementation	0.0	0.0	0.0	0.0	0.0	0.0
Operational Staff	0.0	0.0	0.0	0.0	0.0	0.0
Operational Augmentation	0.0	0.0	0.0	0.0	0.0	0.0
Other Costs	0.0	0.0	0.0	0.0	0.0	0.0
Total Costs	(1929.6)	(4449.5)	(3600.9)	(3792.2)	(3994.2)	(17766.4)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	0.0	0.0	0.0	0.0	0.0
Costs	(1929.6)	(4449.5)	(3600.9)	(3792.2)	(3994.2)	(17766.4)
NET CASH FLOW	**(1929.6)**	**(4449.5)**	**(3600.9)**	**(3792.2)**	**(3994.2)**	**(17766.4)**
Cumulative Net CF	(1929.6)	(6379.1)	(9980.0)	(10171.3)	(13974.2)	(17766.4)
Discounted Cash Flow						**NPV**
At 0.0%	(1929.6)	(4449.5)	(3600.9)	(3792.2)	(3994.2)	(17766.4)

Discount rate is entered on Proposal CF Worksheet

Blue cells are for user input (unlocked)
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE
ALTERNATIVE 1 - DO NOTHING (BASELINE) CASH FLOW

ALT 1 - DO NOTHING CASH FLOW

$ in 1,000s

Discount rate Discount rate 0.0%

Discount rate is entered on Proposal CF Worksheet

Blue cells are for user input (unlocked)
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2017	Jun 30 2019	Jun 30 2021	Jun 30 2023	Jun 30 2025	TOTAL
BENEFITS / GAINS						
Benefit item 1	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 2	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 3	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 4	0.0	0.0	0.0	0.0	0.0	0.0
Total Benefits/Gains	0.0	0.0	0.0	0.0	0.0	0.0
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	(1438.0)	(3924.0)	(3039.0)	(3191.0)	(3350.5)	(14942.4)
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	0.0	0.0	0.0	0.0	0.0	0.0
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	(46.4)	(51.0)	(56.1)	(61.8)	(67.9)	(283.3)
Hosting	(46.4)	(51.0)	(56.1)	(61.8)	(67.9)	(283.3)
Storage	(46.4)	(51.0)	(56.1)	(61.8)	(67.9)	(283.3)
Network	(46.4)	(51.0)	(56.1)	(61.8)	(67.9)	(283.3)
Software Costs						
SW Purchase/Upgrade	(25.0)	(26.3)	(27.6)	(28.9)	(30.4)	(138.1)
SW License Maintenance	(211.0)	(221.6)	(232.6)	(244.3)	(256.5)	(1165.9)
Hardware Costs						
Hardware Purchase/Upgrade	(25.0)	(26.3)	(27.6)	(28.9)	(30.4)	(138.1)
Hardware Ongoing Maint	(45.0)	(47.3)	(49.6)	(52.1)	(54.7)	(248.7)
IT Professional Services						
Project Dev/Implementation	0.0	0.0	0.0	0.0	0.0	0.0
Operational Staff	0.0	0.0	0.0	0.0	0.0	0.0
Operational Augmentation	0.0	0.0	0.0	0.0	0.0	0.0
IT Prof Svcs (legacy support) 21266	0.0	(350.0)	(700.0)	(1050.0)	(1400.0)	(3500.0)
Total Costs	(1929.6)	(4799.5)	(4300.9)	(4842.2)	(5394.2)	(21266.4)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	0.0	0.0	0.0	0.0	0.0
Costs	(1929.6)	(4799.5)	(4300.9)	(4842.2)	(5394.2)	(21266.4)
NET CASH FLOW	**(1929.6)**	**(4799.5)**	**(4300.9)**	**(4842.2)**	**(5394.2)**	**(21266.4)**
Cumulative Net CF	(1929.6)	(6729.1)	(11030.0)	(11571.3)	(16424.2)	(21266.4)
Discounted Cash Flow						**NPV**
At 0.0%	(1929.6)	(4799.5)	(4300.9)	(4842.2)	(5394.2)	(21266.4)

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE
ALTERNATIVE 2 - REPLACE WITH COTS CASH FLOW

ALT 2 - COTS CASH FLOW

$ in 1,000s

Discount rate 0.0%

The discount rate entered here will be used on all worksheets

Blue cells are for user input (unlocked)
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2017	Jun 30 2019	Jun 30 2021	Jun 30 2023	Jun 30 2025	TOTAL
BENEFITS / GAINS						
OSP User Interface Adoption		41.3	123.8	206.3	288.8	660.2
Benefit item 2						0.0
Benefit item 3						0.0
Benefit item 4						0.0
Total Benefits/Gains	0.0	41.3	123.8	206.3	288.8	660.2
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	(1438.0)	(3924.0)	(3039.0)	(3191.0)	(3350.5)	(14942.4)
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	(1200.0)	(600.0)	0.0	0.0	0.0	(1800.0)
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	(46.4)	(57.8)	(64.5)	(71.0)	(78.0)	(317.6)
Hosting	(46.4)	(57.8)	(64.5)	(71.0)	(78.0)	(317.6)
Storage	(46.4)	(57.8)	(64.5)	(71.0)	(78.0)	(317.6)
Network	(46.4)	(57.8)	(64.5)	(71.0)	(78.0)	(317.6)
Software Costs						
SW Purchase/Upgrade	(25.0)	(2715.6)				(2740.6)
SW License Maintenance	(211.0)	(237.7)	(918.9)	(927.6)	(936.8)	(3232.0)
Hardware Costs						
Hardware Purchase/Upgrade	(25.0)	(569.8)				(594.8)
Hardware Ongoing Maint	(45.0)	(23.1)				(68.1)
IT Professional Services						
Project Dev/Implementation	(1000.0)	(1000.0)				(2000.0)
Operational Staff						0.0
Operational Augmentation						0.0
Quality Assurance	(360.0)	(180.0)				(540.0)
Total Costs	(4489.6)	(9481.2)	(4215.9)	(4402.4)	(4599.5)	(27188.5)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	41.3	123.8	206.3	288.8	660.2
Costs	(4489.6)	(9481.2)	(4215.9)	(4402.4)	(4599.5)	(27188.5)
NET CASH FLOW	**(4489.6)**	**(9439.9)**	**(4092.1)**	**(4196.1)**	**(4310.7)**	**(26528.3)**
Cumulative Net CF	(4489.6)	(13929.5)	(18021.6)	(22217.7)	(22332.3)	(26528.3)
Discounted Cash Flow						**NPV**
At 0.0%	(4489.6)	(9439.9)	(4092.1)	(4196.1)	(4310.7)	(26528.3)

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE
ALTERNATIVE 3 - REWRITE SYSTEMS INTERNALLY CASH FLOW

ALT 3 - CUSTOM SOFTWARE CASH FLOW

$ in 1,000s

Discount rate 0.0%

Discount rate is entered on Proposal CF Worksheet

Blue cells are for user input (unlocked)
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2017	Jun 30 2019	Jun 30 2021	Jun 30 2023	Jun 30 2025	TOTAL
BENEFITS / GAINS						
Benefit item 1		41.3	123.8	206.3	288.8	660.2
Benefit item 2						0.0
Benefit item 3						0.0
Benefit item 4						0.0
Total Benefits/Gains	0.0	41.3	123.8	206.3	288.8	660.2
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	(1438.0)	(3924.0)	(3039.0)	(3191.0)	(3350.5)	(14942.4)
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	(1200.0)	(600.0)	0.0	0.0	0.0	(1800.0)
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	(46.4)	(57.8)	(64.5)	(71.0)	(78.0)	(317.6)
Hosting	(46.4)	(57.8)	(64.5)	(71.0)	(78.0)	(317.6)
Storage	(46.4)	(57.8)	(64.5)	(71.0)	(78.0)	(317.6)
Network	(46.4)	(57.8)	(64.5)	(71.0)	(78.0)	(317.6)
Software Costs						
SW Purchase/Upgrade	(25.0)	(5038.1)				(5063.1)
SW License Maintenance	(211.0)	(237.7)	(1508.2)	(1516.9)	(1526.1)	(4999.9)
Hardware Costs						
Hardware Purchase/Upgrade	(25.0)	(687.8)				(712.8)
Hardware Ongoing Maint	(45.0)	(23.1)				(68.1)
IT Professional Services						
Project Dev/Implementation	(3277.5)	(3277.5)				(6555.0)
Operational Staff						0.0
Operational Augmentation						0.0
Other	(360.0)	(270.0)				(630.0)
Total Costs	(6767.1)	(14289.2)	(4805.2)	(4991.7)	(5188.8)	(36041.9)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	41.3	123.8	206.3	288.8	660.2
Costs	(6767.1)	(14289.2)	(4805.2)	(4991.7)	(5188.8)	(36041.9)
NET CASH FLOW	**(6767.1)**	**(14247.9)**	**(4681.4)**	**(4785.4)**	**(4900.0)**	**(35381.7)**
Cumulative Net CF	(6767.1)	(21015.0)	(25696.4)	(30481.8)	(30596.4)	(35381.7)
Discounted Cash Flow						**NPV**
At 0.0%	(6767.1)	(14247.9)	(4681.4)	(4785.4)	(4900.0)	(35381.7)

ALT 2 - COTS INCREMENTAL CASH FLOW
All figures represent (Proposal Value) - (Current State Value)

$ in 1,000s

Discount rate 0.0%

Discount rate is entered on Proposal CF Worksheet

All values on this worksheet are derived from entries on other sheets
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2017	Jun 30 2019	Jun 30 2021	Jun 30 2023	Jun 30 2025	TOTAL
BENEFITS / GAINS						
Benefit item 1	0.0	41.3	123.8	206.3	288.8	660.2
Benefit item 2	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 3	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 4	0.0	0.0	0.0	0.0	0.0	0.0
Total Benefits/Gains	0.0	41.3	123.8	206.3	288.8	660.2
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	0.0	0.0	0.0	0.0	0.0	0.0
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	(1200.0)	(600.0)	0.0	0.0	0.0	(1800.0)
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	0.0	(6.7)	(8.4)	(9.2)	(10.1)	(34.4)
Hosting	0.0	(6.7)	(8.4)	(9.2)	(10.1)	(34.4)
Storage	0.0	(6.7)	(8.4)	(9.2)	(10.1)	(34.4)
Network	0.0	(6.7)	(8.4)	(9.2)	(10.1)	(34.4)
Software Costs						
SW Purchase/Upgrade	0.0	(2689.4)	27.6	28.9	30.4	(2602.5)
SW License Maintenance	0.0	(16.1)	(686.3)	(683.3)	(680.3)	(2066.0)
Hardware Costs						
Hardware Purchase/Upgrade	0.0	(543.6)	27.6	28.9	30.4	(456.7)
Hardware Ongoing Maint	0.0	24.2	49.6	52.1	54.7	180.6
IT Professional Services						
Project Dev/Implementation	(1000.0)	(1000.0)	0.0	0.0	0.0	(2000.0)
Operational Staff	0.0	0.0	0.0	0.0	0.0	0.0
Operational Augmentation	0.0	0.0	0.0	0.0	0.0	0.0
Other	(360.0)	170.0	700.0	1050.0	1400.0	2960.0
Total Costs	(2560.0)	(4681.7)	85.0	439.9	794.7	(5922.1)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	41.3	123.8	206.3	288.8	660.2
Costs	(2560.0)	(4681.7)	85.0	439.9	794.7	(5922.1)
NET CASH FLOW	**(2560.0)**	**(4640.4)**	**208.8**	**646.2**	**1083.5**	**(5261.9)**
Cumulative Net CF	(2560.0)	(7200.4)	(6991.6)	(6345.4)	(5908.1)	(5261.9)
Discounted Cash Flow						**NPV**
At 0.0%	(2560.0)	(4640.4)	208.8	646.2	1083.5	(5261.9)

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE
ALTERNATIVE 3 - CUSTOM SOFTWARE INCREMENTAL CASH FLOW

ALT 3 - REWRITE SYSTEMS INTERNALLY CASH FLOW
All figures represent (AltProposal Value) - (Current State Value)

$ in 1,000s

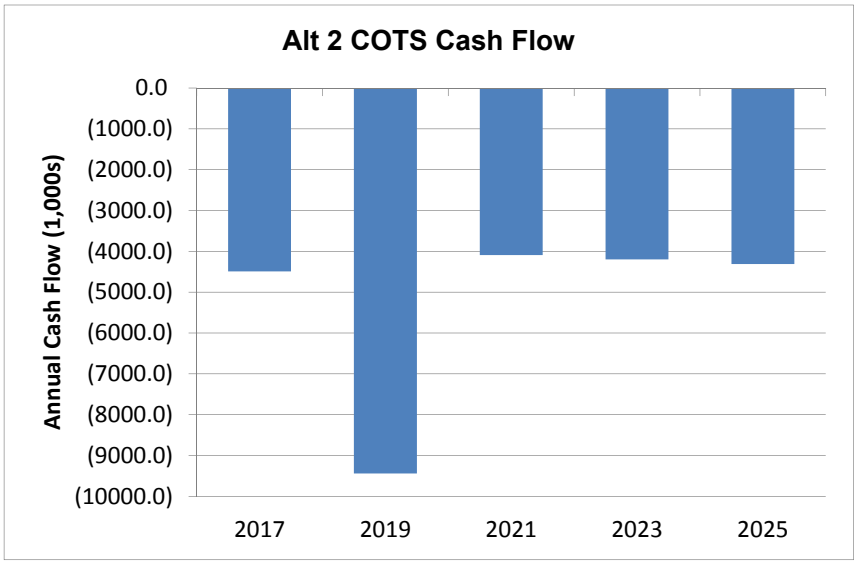
Discount rate 0.0%

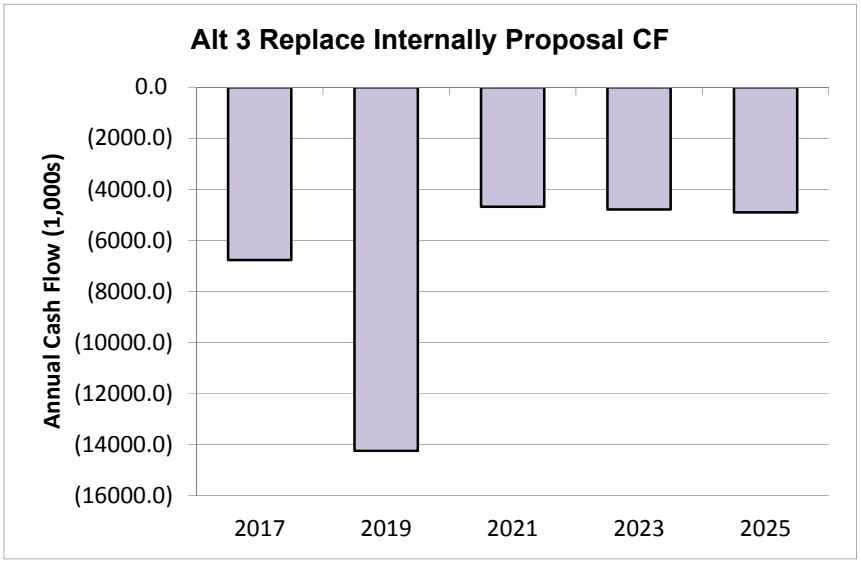
Discount rate is entered on Proposal CF Worksheet

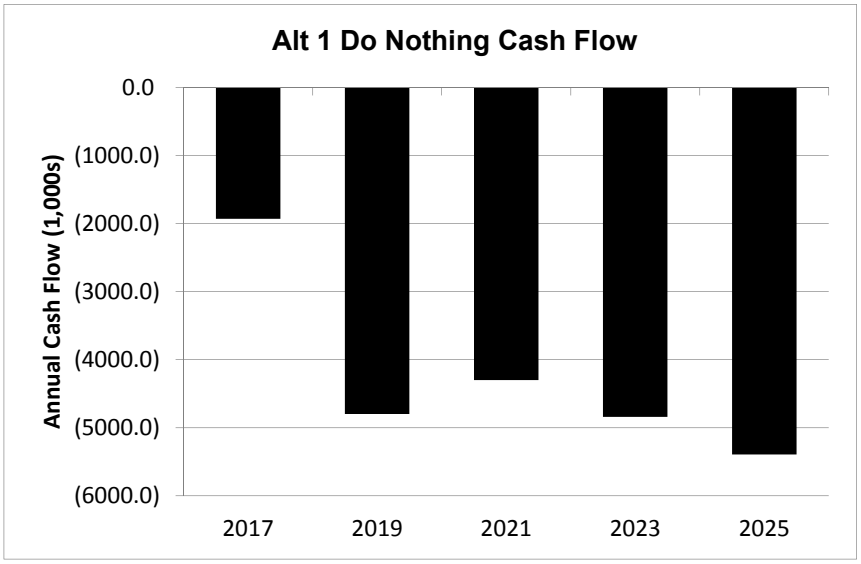
All values on this worksheet are derived from entries on other sheets
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2017	Jun 30 2019	Jun 30 2021	Jun 30 2023	Jun 30 2025	TOTAL
BENEFITS / GAINS						
Benefit item 1	0.0	41.3	123.8	206.3	288.8	660.2
Benefit item 2	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 3	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 4	0.0	0.0	0.0	0.0	0.0	0.0
Total Benefits/Gains	0.0	41.3	123.8	206.3	288.8	660.2
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	0.0	0.0	0.0	0.0	0.0	0.0
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	(1200.0)	(600.0)	0.0	0.0	0.0	(1800.0)
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	0.0	(6.7)	(8.4)	(9.2)	(10.1)	(34.4)
Hosting	0.0	(6.7)	(8.4)	(9.2)	(10.1)	(34.4)
Storage	0.0	(6.7)	(8.4)	(9.2)	(10.1)	(34.4)
Network	0.0	(6.7)	(8.4)	(9.2)	(10.1)	(34.4)
Software Costs						
SW Purchase/Upgrade	0.0	(5011.9)	27.6	28.9	30.4	(4925.0)
SW License Maintenance	0.0	(16.1)	(1275.6)	(1272.6)	(1269.6)	(3833.9)
Hardware Costs						
Hardware Purchase/Upgrade	0.0	(661.6)	27.6	28.9	30.4	(574.7)
Hardware Ongoing Maint	0.0	24.2	49.6	52.1	54.7	180.6
IT Professional Services						
Project Dev/Implementation	(3277.5)	(3277.5)	0.0	0.0	0.0	(6555.0)
Operational Staff	0.0	0.0	0.0	0.0	0.0	0.0
Operational Augmentation	0.0	0.0	0.0	0.0	0.0	0.0
Other	(360.0)	80.0	700.0	1050.0	1400.0	2870.0
Total Costs	(4837.5)	(9489.7)	(504.3)	(149.4)	205.4	(14775.5)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	41.3	123.8	206.3	288.8	660.2
Costs	(4837.5)	(9489.7)	(504.3)	(149.4)	205.4	(14775.5)
NET CASH FLOW	**(4837.5)**	**(9448.4)**	**(380.5)**	**56.9**	**494.2**	**(14115.3)**
Cumulative Net CF	(4837.5)	(14285.9)	(14666.4)	(14609.5)	(14172.2)	(14115.3)
Discounted Cash Flow						**NPV**
At 0.0%	(4837.5)	(9448.4)	(380.5)	56.9	494.2	(14115.3)

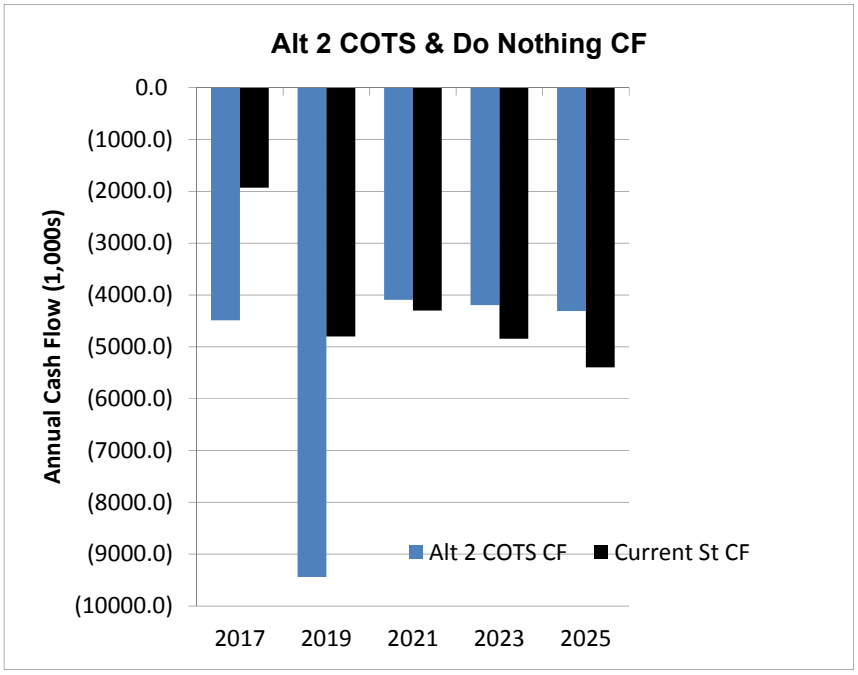
OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE
GRAPHICAL CASH FLOW REPRESENTATIONS

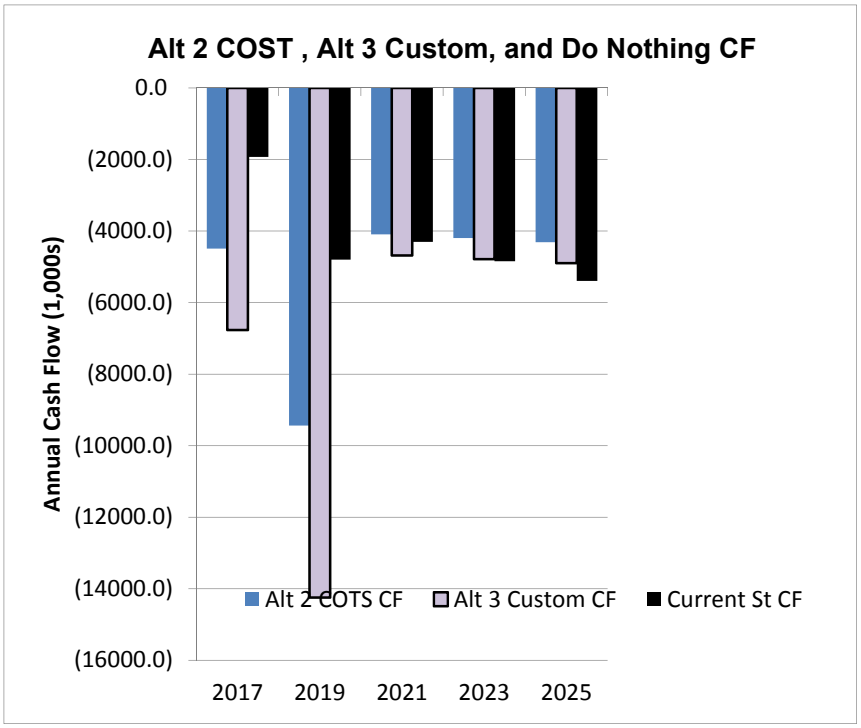






GRAPHICAL CASH FLOW REPRESENTATIONS





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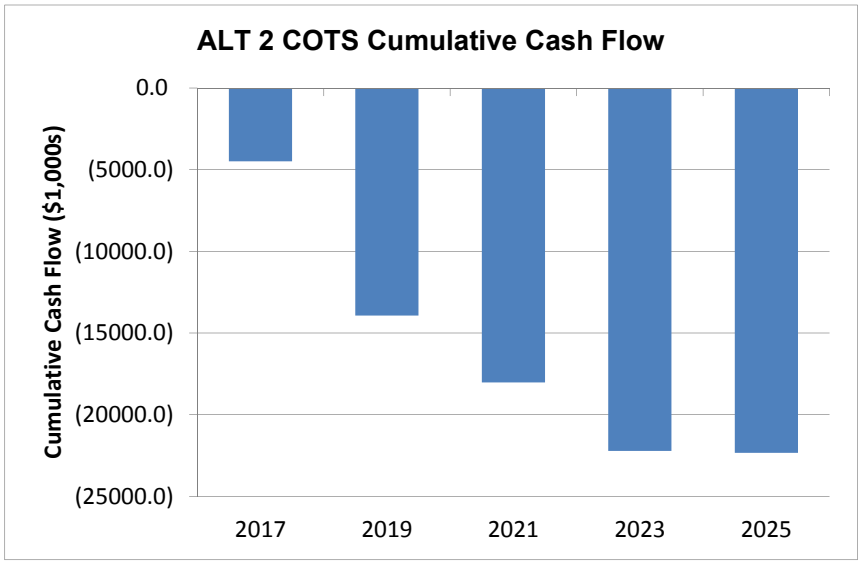
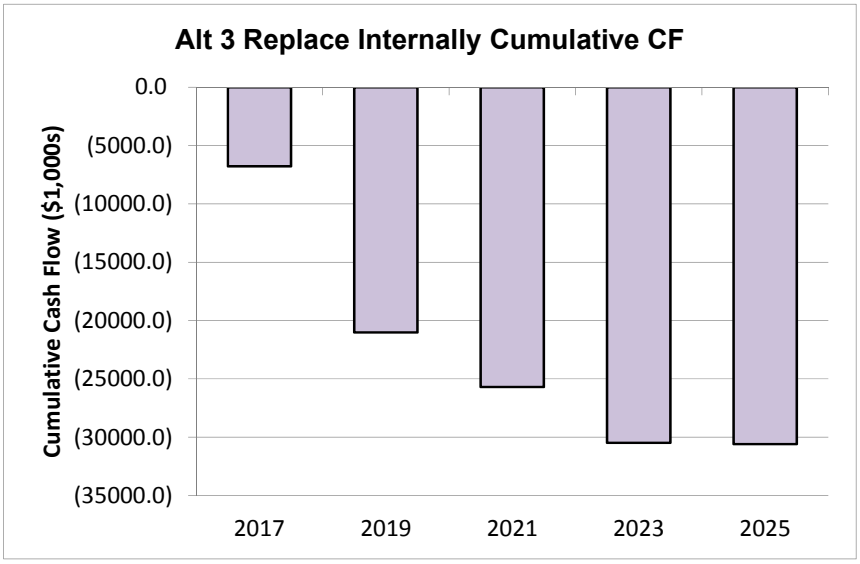
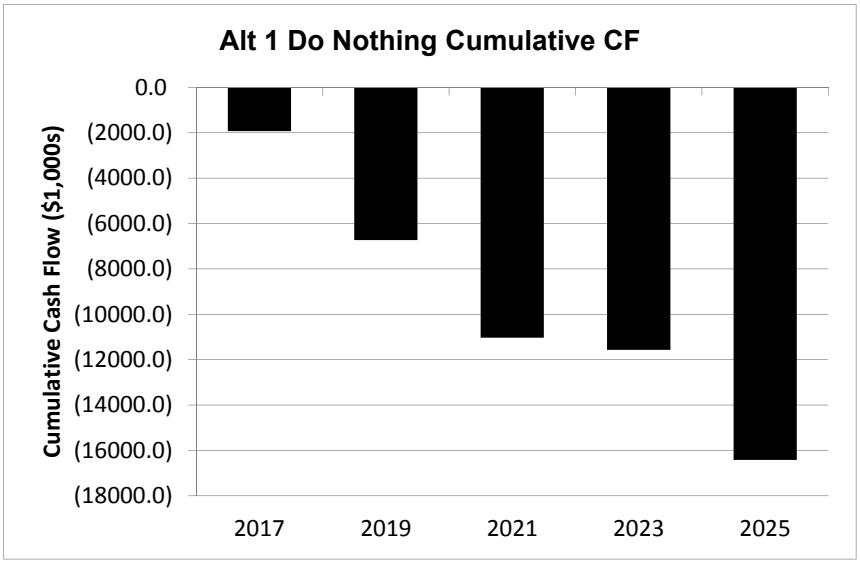
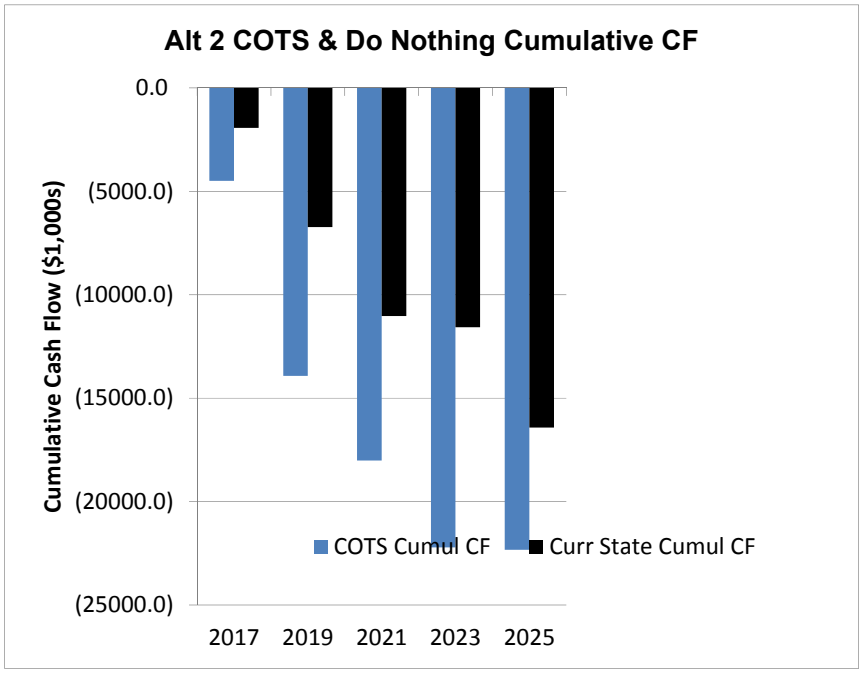
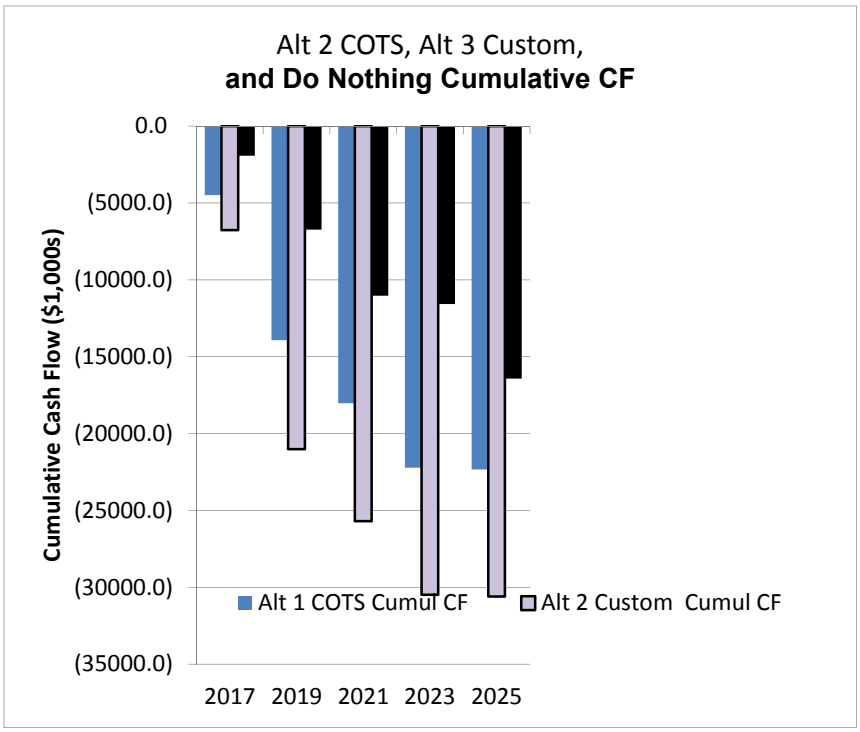






GRAPHICAL CASH FLOW REPRESENTATIONS





OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE
FINANCIAL METRICS SUMMARY

Financial Metrics Summary

	Proposal	Alt Proposal	Current State	Incr Proposal	Incr Alt Prop
Net Cash Flow	($26,528.3)	($35,381.7)	($21,266.4)	($5,261.9)	($14,115.3)
NPV at 0.0%	($26,528.3)	($35,381.7)	($21,266.4)	($5,261.9)	($14,115.3)
Total Benefits	$660.2	$660.2	$0.0	$660.2	$660.2
Total Costs	($27,188.5)	($36,041.9)	($21,266.4)	($5,922.1)	($14,775.5)

$ in $1,000s

Numbers in parenthesis are negative numbers

APPENDIX G – Business Case Financials Current

This appendix provides updates to the Business Case financials based on new information resultant from proposals received in response to the competitively executed RFP.

Oregon State Police
"Premier Public Safety Services"

Business Case Financials Current

CRIMEvue Project

V2.1

September 30, 2016

Revision History

Date	Version	Description	Author
9/7/16	0.01	Prepared first draft	Mathew Oeder
9/9/16	1.0	Finalized Draft for review	Mathew Oeder
9/12/16	1.1	Updates and feedback	Neville Wallace
9/14/16	2.0	Revision and update based on feedback	Mathew Oeder
9/30/16	2.1	Revised document title	Mathew Oeder

NOTE: Some Microsoft Office field codes (e.g. table of contents, page number, dates, file name, etc.) are not automatically updated when a file is saved or printed. To ensure that all field codes are updated prior to saving or printing, follow these steps:

1. From within the main body of the document, enter Ctrl A to select all document content.
2. Enter F9 to update all field codes.
3. From within all page headers and all page footers that contain field codes FOR EACH DOCUMENT SECTION perform steps 1 and 2 above.

Table of Contents

1 Document Purpose

Since the release of the last version of the Business Case (v1.4, Nov 24, 2015), more information related to project approach and potential project costs has become available. Much of this new information was introduced in the proposals submitted by the respondents to the RFP. This document leverages this new information to provide an update on the financial requirements of the project.

The CRIMEvue and LEDS systems together are mission critical systems that operate 24 hours a day, seven days a week, 365 days a year, to help ensure public safety under the stewardship of Oregon State Police (OSP). The data in CRIMEvue is used and relied upon by customer agencies to perform their criminal justice and regulatory functions.

2 Background

OSP is statutorily required (under ORS 181.730) to maintain specific databases on behalf of the criminal justice system. CRIMEvue is the central databank shared by all law enforcement agencies in Oregon. This single databank model is efficient and enhances public safety because all law enforcement agencies have instantaneous access to each other's records in a uniform manner.

The CRIMEvue and LEDS systems together are mission critical systems that operate 24 hours a day, seven days a week, 365 days a year, to help ensure public safety under the stewardship of Oregon State Police (OSP). The data in CRIMEvue is used and relied upon by customer agencies to perform their criminal justice and regulatory functions.

Starting in Early 2014, OSP embarked on gathering information from various sources, including partner state law enforcement agencies, in order to determine the level of effort needed to replace this mission critical system. Over the next year OSP compiled the information gathered and contracted with a company called MTG Management Consultants (MTG) to produce a business case.

As part of their process, MTG conducted a market analysis and concluded that the potential budget range for the project was $2.6 million to $18.5 million without maintenance and support. Based on these high level projections OSP submitted a Policy Option Package (POP) for the 2015-2017 Biennium. The request was for expenditure authority of Other Funds that OSP already had and some general fund.

In spring of 2015, OSP worked on and released a RFP for Project Management and Business Analyst services. Online Business Systems (OBS) was successful in this RFP and started work on project foundational documents, high level requirements gathering and constructing the RFP for the COTS solutions. The RFP for the COTS solution was posted to Oregon Procurement system (ORPIN) in April 2016 and closed in June 2016.

Evaluation of the proposals that were submitted was completed in mid-August 2016.

3 Summary of Cost Proposals submitted in response to the RFP

Proposals were received from three vendors. The tables below summarize the cost proposals from these vendors separating the costs into three categories (High, Medium and Low). The range of proposed costs reported below provides an update on (i) current market conditions and (ii) potential project costs.

High Cost	
Implementation Costs	$16,591,696
Project Manager/Business Analyst	$1,800,000
Independent QA	$1,185,000
DAS/DOJ	$317,000
Project QM	$110,000
OSP Personnel Services	$461,000
Total Project Implementation Costs	**$20,464,696**
10 Year Maintenance Costs	$19,689,727
Overall Total	***$40,154,423***

Median Cost	
Implementation Costs	$11,249,234
Project Manager/Business Analyst	$1,800,000
Independent QA	$1,185,000
DAS/DOJ	$317,000
Project QM	$110,000
OSP Personnel Services	$461,000
Total Project Implementation Costs	**$15,122,234**
10 Year Maintenance Costs	$13,378,976
Overall Total	***$28,501,210***

Low Cost	
Implementation Costs	$5,788,499
Project Manager/Business Analyst	$1,800,000
Independent QA	$1,185,000
DAS/DOJ	$317,000
Project QM	$110,000
OSP Personnel Services	$461,000
Total Project Implementation Costs	**$9,661,499**
10 Year Maintenance Costs	$7,450,634
Overall Total	***$17,112,133***

4 Projected Project Costs

Proposals were evaluated through a structured evaluation process facilitated by DAS Procurement. For each of the three vendors that responded to the RFP, the process included (i) assessment of vendor proposal, (ii) assessment of vendor presentation/demonstration and (iii) review of vendor's Best And Final Offer (BAFO). Through this process, it was determined that the proposal that offered the greatest business value to OSP was the proposal that contained the lowest proposed costs.

Based on the selection results, the chart below depicts the known and projected costs based on all major components of the project. The total project costs from May 14, 2014 until July 15, 2016 has been $1,201,358.00 and is not shown within the table.

	July 2016 to December 2016	January 2017 to June 2017	July 2017 to June 2019	July 2019 to February 2020
Solution Vendor	$0	$833,853	$3,168,928	$1,785,718
PM/BA	$93,720	$164,357	$951,296	$149,952
Independent QA	$75,000*	$210,000	$600,000	$210,000
DOJ	$4,000*	$39,599	$10,000*	$3,000*
DAS	$0	$207,361	$50,000*	$3,000*
Project QM	$0	$50,000	$50,000*	$10,000*
OSP Personnel	$54,827	$56,534	$251,000	$98,123
Total:	**$227,547**	**$1,561,704**	**$5,081,224**	**$2,259,793**
			Total Implementation Projection	**$9,130,268**

*These figures are estimations.

- **Solution Vendor** – The apparent successful vendor from the CRIMEvue Replacement Project RFP. OSP anticipates executing a contract with the apparent successful vendor around mid-December 2016.
- **PM/BA** – OSP signed a contract with Online Business Systems in September 2015 for professional services pertaining to a Project Manager and a Business Analyst.
- **Independent QA** – OSP signed a contract with Maximus in February 2016 for Independent Quality Assurance services.
- **DOJ** – OSP has and will continue to utilize services from the Oregon Department of Justice pertaining to contractual and other legal issues.
- **DAS** – All fees associated with the preparation and execution of the procurement and contracting process for the CRIMEvue Replacement Project.
- **Project QM** – OSP anticipates contracting and utilizing professional services with regards to Quality Management of the CRIMEvue Replacement Project. These services will be used to help ensure the project is focusing on sound quality output and processes.
- **OSP Personnel** – Personnel and supply costs directly provided to and from OSP staff.

5 Ongoing Support and Maintenance

Upon completion of the Implementation phase of the CRIMEvue Replacement Project the operations phase of the project will commence. The operations phase will consist of moving from project close out and transition to standard support and maintenance for the implemented system.

Through the RFP process, OSP requested proposers to provide an estimated cost of ongoing support and maintenance for the proposed solution for a period of ten years following implementation.

Cost Year 1	Cost Year 2	Cost Year 3	Cost Year 4	Cost Year 5	Cost Year 6	Cost Year 7	Cost Year 8	Cost Year 9	Cost Year 10	Total
$643,977	$656,091	$668,449	$681,054	$902,912	$707,029	$720,408	$734,056	$747,978	$988,680	**$7,450,634**

6 Projected and Known Project Cost with 10 year Maintenance

CRIMEvue Replacement Project Cost and 10 Year Maintenance Cost	
SI Vendor Implementation Costs	$5,788,499
Project Manager/Business Analyst	$1,359,325
Independent QA	$1,095,000
DAS/DOJ	$316,960
Project QM	$110,000
OSP Personnel Services	$460,484
May 2014 to July 2016 Expended Project Costs	$1,201,358
Total Project Implementation Costs	**$10,331,626**
10 Year Maintenance Costs	$7,450,634
Overall Total	***$17,782,260***

The apparent successful vendor has provided a proposed project close-out of February 2020. It is unknown at this time what the project duration will be as a result of contract negotiations. The numbers provided in this projection are based on the February 2020 timeline. The projection of numbers is dependent on the outcome of the successful negotiations.

The project start date is May 2014. As of July 2016, OSP has spent $1,201,358.00 on project costs such as business case development, PM/BA and QA services.

Addendum 1 - Inclusion of Sex Offender Registry (SOR)

Business Case Update (Addendum 1) – Authorizing Signatures

PROPOSAL NAME AND DOCUMENT VERSION #	**CRIMEvue Replacement Project** **Business Case 3.0 (Addendum 1)**		
AGENCY	Oregon State Police	DATE	April 15, 2020
DIVISION	Criminal Justice Information Services	DAS CONTROL #	TBD
AGENCY CONTACT	Major Tom M. Worthy	PHONE NUMBER	(503) 934-0266

The person signing this section is attesting to reviewing and approving the business case as proposed.

Agency Sponsor	
Major Tom Worthy	(Date)
Signature	
Agency Deputy Sponsor	
Rebecca David	(Date)
Signature	
Agency Business Owner	
Tricia Whitfield	(Date)
Signature	
Agency Chief Information Officer (CIO)	
	(Date)
Signature	
Business Lead	
Michael Hawkins	(Date)
Signature	
State Data Center Representative, if required by the State CIO	
Matt Shearer	(Date)
Signature	

Enterprise Information Services – Project Portfolio Performance (EIS-P3)	
Ben Gherezgiher, Senior IT Portfolio Manager	(Date)
Signature	
State CIO	
Terrance Woods, CIO	(Date)
Signature	

Purpose and Background

The CRIMEvue replacement project, now titled Law Enforcement Data System (LEDS) 20/20, is nearing completion of the third of a planned five deployment phases (as of April 2020). The replacement of the current Sex Offender Registry (SOR) is now included as a new, sixth phase of the overall project scope. The purpose of this Business Case Addendum 1 is to update the CRIMEvue Replacement Project Business Case to reflect the addition of Phase 6 – SOR Replacement and seek the associated approvals to proceed. Phase 6 has the full support of the superintendent of the Oregon State Police (OSP).

SOR Relation to LEDS 20/20 Project

Replacement of the SOR environment was specifically left out of the scope of the original CRIMEvue replacement project because several efforts to improve the SOR were either underway or planned at the time (2014–2015). Over time, as the SOR improvements were completed and the LEDS 20/20 project progressed, it became increasingly clear that the current SOR environment, while operational, would not be supportable in the long term. This is due to a number of factors, including SOR's technical complexity and its inconsistency with other OSP applications. As such, SOR replacement is now an identified goal of the LEDS 20/20 implementation, with the full support and authority of OSP executive leadership.

Solution Scope

The SOR replacement scope includes each major aspect of the current system topology, which is characterized as multiple components partly reliant on third-party vendor solutions (from Tailored Solutions) and partly reliant on custom applications and infrastructure built and supported by OSP IT staff. The high-level topology, shown in Figure A1-I below, encompasses the SOR replacement solution scope.

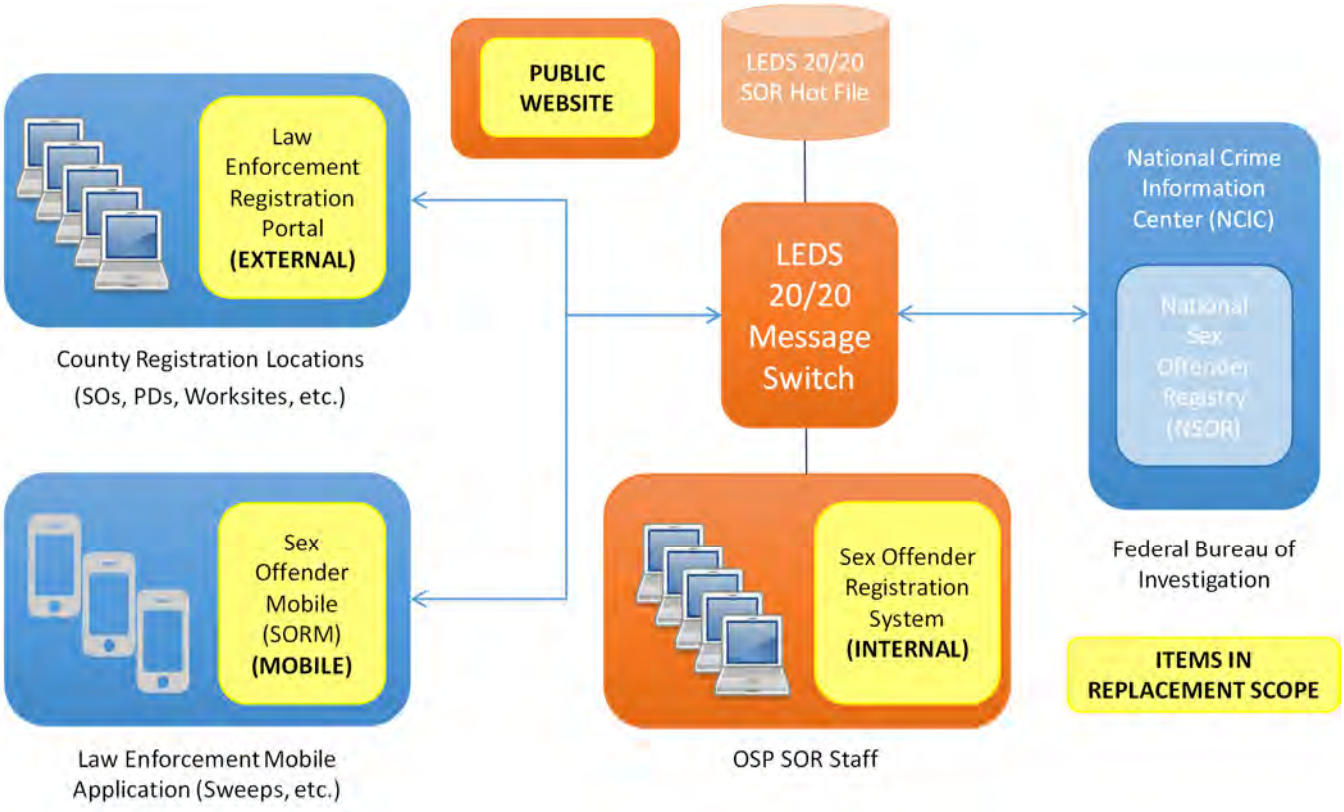


FIGURE A1-I – SOR Replacement Scope

In short, the SOR replacement scope includes the applications and related infrastructures and data stores associated with the SOR external application, internal applications, mobile application, and public website.

Project Scope

The planning and execution elements below describe how OSP is approaching the SOR replacement effort from a project-centric perspective:

- ***Business Case Development*** – Includes preparing the necessary elements of the LEDS 20/20 business case in addendum form (represented by this Addendum 1 to the CRIMEvue Replacement Project Business Case from September 30, 2016).
- ***Current Environment Analysis (CEA) Development*** – Includes the preparation of a CEA document detailing several elements of the current SOR environment, including the overall topology, technical systems, workflows, and related details.
- ***Requirements Development*** – Details the functional and technical SOR requirements at a level of detail sufficient for replacement system acquisition.
- ***Implementation Scope of Work (SOW) Preparation*** – Details the activities and deliverables required of the SOR replacement vendor from the time the contractual elements are executed through user acceptance. Common elements here include areas of project administration, system setup, implementation, acceptance, migration, training, and related activities and deliverables.
- ***Operational and Maintenance SOW Preparation*** – Details the activities and deliverables required of the SOR replacement vendor spanning the time from user acceptance through the remaining contract term. Common elements here include areas of ongoing support, maintenance, reporting, and related activities and deliverables.
- ***Acquisition of Pricing from LEDS 20/20 Solution Vendor*** – Includes submitting the above-listed items to Diverse Computing, Inc. (DCI), for evaluation, pricing, and solution quote.
- ***Execution of Contractual Agreements*** – Assuming OSP and DCI reach acceptable terms, this task includes arranging for the contractual agreements among the appropriate LEDS 20/20 project providers. This will likely include amending existing agreements with:
    - DCI – LEDS 20/20 solution provider.
    - Gartner – LEDS 20/20 external project quality assurance (QA) provider.
    - Online Business Systems (Online) – LEDS 20/20 project management and business analysis provider.

Specific elements of the budget and schedule will be outcomes of the exercises above and will result in updates to this business case Addendum 1 as appropriate.

About This Addendum 1

- ***Addendum 1 Approach*** – Per a meeting among representatives of OSP, the Oregon Enterprise Information Services – Project Portfolio Performance (EIS-P3) office, and Online on February 4, 2020, an addendum-based approach to the original CRIMEvue Replacement Project business case was deemed appropriate. The addendum-based approach was favored because it appropriately compartmentalizes a change in scope to an existing project in its execution phase. However, it was noted that the addendum approach is unusual, and final determination of approach appropriateness is reserved pending the outcome of periodic content reviews.
- ***Addendum 1 Authoring*** – OSP has executed an agreement with Online to complete the SOR Addendum 1 and related planning deliverables. Online maintains a subcontract with MTG Management Consultants,

LLC, to provide business analysis services to the LEDS 20/20 project. MTG authored the original CRIMEvue business case and has been tasked with several of the project scope items from above.

- ***Solution Target*** – OSP has no preconceptions about how DCI will scope, architect, and price a solution for LEDS 20/20 Phase 6. Accordingly, there are many potential outcomes of the Phase 6 approach, schedule, and budget. As such, the outcome of the exercises above will result in updates to this business case Addendum 1 as appropriate.
- ***Addendum 1 Content*** – This addendum does not attempt to update previously approved business case content. Rather, it addresses the SOR as its own subsystem within the overall context of the LEDS 20/20 project.

Problem and Opportunity Definition

Introduction

This section identifies the business reasons—the problems that serve as catalysts—to initiate the SOR replacement effort. As a result of many stakeholder interviews, OSP executive and staff work-group sessions, background information reviews, and assessments, the following business and technical objectives discuss the overarching problems and opportunities identified as driving the need for SOR environment replacement:

Business Objectives

- ***Provide a Consistent LEDS 20/20 User Experience*** – When LEDS 20/20 is fully deployed, the more than 16,000 users across the state will have a highly consistent experience across most of OSP's core repository applications, including the state message switch, computerized criminal history, and hot files. However, although the SOR is a critical part of OSP's repository-related services, the current SOR is not included in the LEDS 20/20 scope. OSP has a goal of improving consistency as a means of better managing user experience, support, and training.
- ***Streamline Volume of Service Providers*** – OSP maintains investments in resources from several vendors and OSP IT to fulfill its mission of providing premier public safety services. The SOR is one such area: some current SOR functions are provided by OSP staff, others are provided by vendors, and the SOR hot file service in LEDS 20/20 is provided by a different vendor. Given that the SOR is a core repository service, another OSP goal is to reduce the number of providers as a means of better managing the environment and gaining the most contractual leverage over all aspects of the SOR solution.
- ***Ensure a Long-Term Relationship with a SOR Solution Provider*** – OSP's current SOR environment, if left as-is, will perpetuate a situation in which OSP must work with multiple service providers to maintain and operate the many underlying systems that make up the SOR environment. This includes those elements developed and supported by internal OSP staff, such as the SOR Mobile application (SORM). Any required or requested changes must be orchestrated among several providers and internal staff, which have differing levels of commitment and interest in maintaining their piece of the overall SOR solution. OSP seeks to enter into a more streamlined approach with a single provider that is compelled by contemporary contractual terms to provide long-term application support and maintenance.
- ***Improve Business Processes*** – There are several areas of opportunity to improve the process of registering sex offenders and managing their subsequent interactions with the OSP SOR. These include automating the manner in which OSP is made aware of a subject's requirement to register, and eliminating the complex interactions of the legacy SOR workflows with other enterprise applications such as laser fiche. Today, coordinating these kinds of changes is complex and cumbersome within the multiprovider environment.
- ***Comply with Emerging Standards*** – The business of registering sex offenders is a national priority at all levels of government. As a result, legislative changes at the federal and state levels are common. Additionally, standards (especially the National Crime Information Center [NCIC] standard and the associated Technical Operational Update [TOU] release process) regulating how the state SOR environment interacts with the National Sex Offender Registry (NSOR) are subject to periodic changes through long-standing, defined processes. As a result, OSP must comply with these changes across its suite of repository-related systems, including the current SOR environment as well as the message switch, the hot files, and sometimes other applications. This is a cumbersome task, especially when taking into account the multisystem and multivendor environment. Accordingly, OSP seeks a solution that is more readily positioned to address changes in state and national standards.
- ***Ensure That OSP Mobile Innovations Perpetuate*** – OSP has expended considerable effort and expense developing and implementing SORM. SORM is widely acclaimed for its usefulness, and has been well received by law enforcement agencies throughout the state for its user-friendly features and capabilities

for performing subsequent registrations in the field, leveraging geographic information and maps to guide law enforcement sweep activities, and related innovations. These capabilities are not available in the Commercial Off-the-Shelf (COTS) marketplace; OSP will work to maintain this functionality either by reusing elements of the current system in the replacement system or by adding similar functionalities to the replacement system.

Technical Objectives

- ***Reduce Technical Diversity*** – OSP's current SOR environment is characterized by five user interfaces, six applications, four databases, and several interfaces that have been assembled by vendor and OSP IT staff. Over time, OSP has expended considerable effort to maintain the interoperability of these diverse systems through the use of vendor contracts and specialized internal IT staff. Accordingly, OSP has a goal of leveraging a more modern SOR tool set that is streamlined to interact well with other OSP applications, vendor support agreements, and more common capabilities of internal staff.
- ***Reduce Support Requirements*** – The underlying technologies supporting the overall SOR environment are highly varied and include a mix of proprietary, open source, and standard tools of differing vintage across several database, application, and user interface components. This circumstance requires a wide range of technical expertise and management to perform the most basic of administrative functions, such as enforcement of security policy. Additionally, applying routine updates often requires change orders with existing vendors and acquisition of specialized resources to appropriately orchestrate, test, and deploy minor and major updates. Appropriately, OSP seeks to streamline support requirements for the overall SOR solution and manage the environment under more contemporary and predictable contractual support terms.
- ***Implement Disaster Recovery Capability*** – The LEDS 20/20 solution design being deployed includes a modern disaster recovery capability that will comply with the standards for disaster recovery preparedness issued by the Enterprise Security Office of the Office of the State Chief Information Officer (OSCIO). Because the current SOR environment is excluded from the LEDS 20/20 project and there are no other disaster recovery provisions in place, the SOR environment is not currently prepared to recover in a disaster situation. As such, OSP seeks a solution that can be readily incorporated into existing disaster recovery implementation plans.

The objectives listed above contribute to OSP's plans to engage the current LEDS 20/20 vendor, DCI, to scope, architect, and price a solution for a potential LEDS 20/20 Phase 6 – SOR Replacement.

Enabling Authority

The SOR is governed by both federal and state authority, as discussed below.

Federal Authority

The Sex Offender Reporting and Notification Act (SORNA) requires states to maintain a system for monitoring and tracking convicted sex offenders following their release into the community. SORNA makes it a federal offense to knowingly fail to register with a state's authorities or to fail to update registration at specified times in accordance with the law's requirements. SORNA was passed by Congress in 2006, as part of the Adam Walsh Child Protection and Safety Act. More details are outlined in Section 2250 of Title 18, United States Code.

Oregon Authority

Oregon Revised Statutes (ORSs) and Oregon Administrative Rules (OARs) provide guidance regarding how OSP maintains sex offender data. The primary statutes regarding SOR are located in Chapter 163A — Sex Offender Reporting and Classification. Key aspects of Chapter 163A include:

- *ORS 163A.10 through 163A.65* – Reporting requirements, including crime types, criteria, and time frames; fees; registration forms; failure to report; and immunity.
- *ORS 163A.100 through 163A.115* – Guidelines for classification of sex offenders into risk levels, to be done by the Board of Parole and Post-Prison Supervision (BoPPPS), the Psychiatric Security Review Board (PSRB), or the supervisory authority (as defined in ORS 144.087).
- *ORS 163A.120 through 163A.150* – Guidelines for reclassification or relief from reporting requirements.
- *ORS 163A.200 through 163A.210* – Guidelines for other agencies, such as the PSRB, Oregon Health Authority (OHA), and Oregon Youth Authority (OYA), to provide information that may assist with classification or reclassification of sex offenders.
- *ORS 163A.215 through 163A.235* – Guidelines for releasing sex offender information based on classification, including to the public, to victims, and for juvenile offenders.

Sex offenders who are not under supervision pay a $70 annual fee to the state.

Federal Reporting Guidelines

Reporting of sex offender information to the NSOR is commonly informed by the U.S. Department of Justice through its Office of Sex Offender Sentencing, Monitoring, Apprehending, Registering, and Tracking (SMART). The final guidelines for SORNA (Title I of the Adam Walsh Child Protection and Safety Act of 2006) were published in the Federal Register on July 2, 2008, and supplemental guidelines in relation to the Keeping the Internet Devoid of Sexual Predators Act (KIDS Act) of 2008 provided further sex offender registration guidelines in early 2011. Collectively, these guidelines provide much of the basis for SOR functional requirements. They can be referenced here.

Assessment of Current State

The *LEDS 20/20 SOR Current Environment Analysis* (CEA) contains an assessment of the current OSP SOR environment, including descriptions of the overall topology, technical systems, workflows, and related details. For ease of reference, the remainder of this addendum outlines the current environment and conveys the related conclusions and recommendations. More details are available within the separate CEA deliverable.

High-Level Topology

Figure A1-II below provides a high-level depiction of the major aspects of the SOR environment and is followed by a description of the high-level elements.

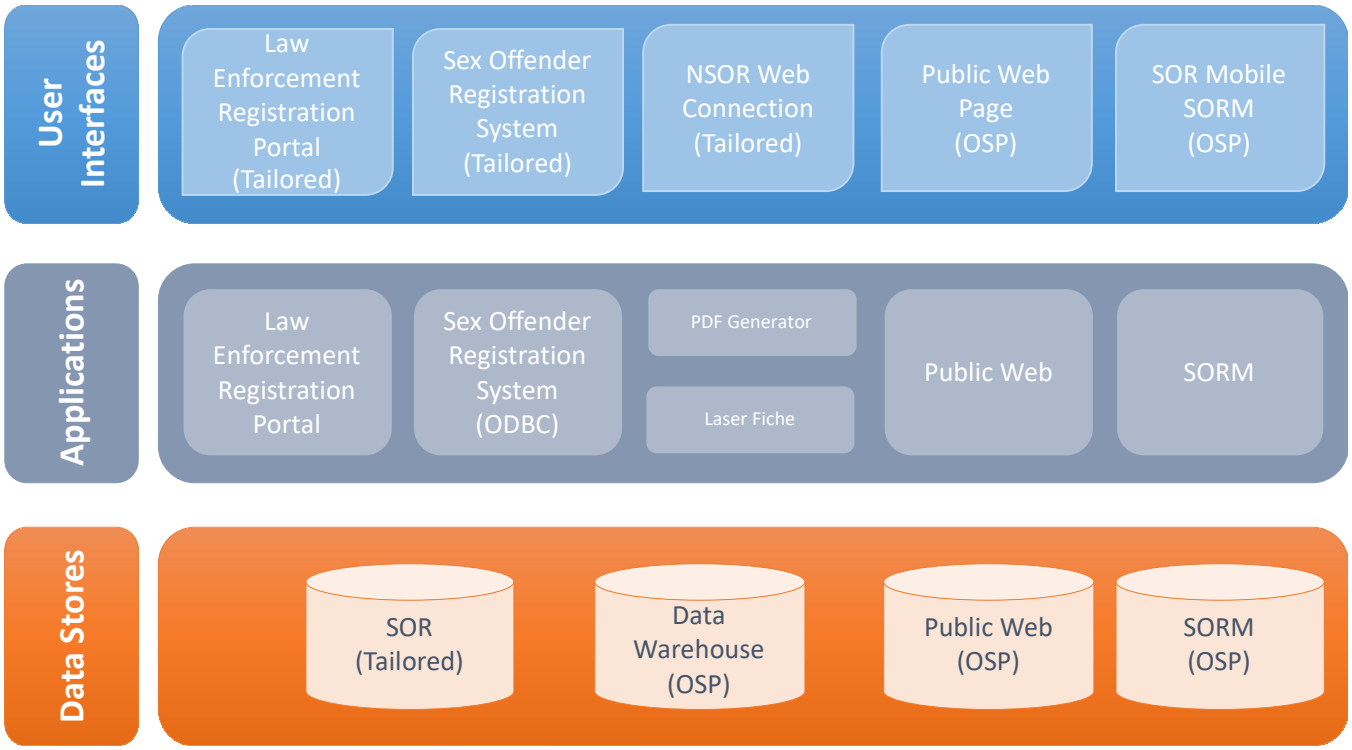


FIGURE A1-II: Current SOR High-Level Topology

- ***User Interface(s) –*** The general manner in which users interact with the overall current SOR environment. Components labeled "(Tailored)" are provided by Tailored Solutions; ODBC is the Open Database Connectivity protocol for database access.
- ***Applications –*** Where the business logic is located and managed for the overall current SOR environment.
- ***Data Stores –*** Where data is stored in support of the applications and user interfaces associated with the current SOR environment.

Vendor Market and Peer Considerations

Market and peer state research provides insight into vendor offerings and peer state experiences with the use of SOR environments nationally. The SOR replacement project team gathered several market and peer data points from an informal survey, personal interactions, and industry briefs.

Vendors by Peer State

Not all states use vendor-provided SOR packages, and business practices vary widely among states. For example, some vendors have a significant presence at the local or county level but not at the state level. For purposes of this analysis, the focus is on SOR software packages that vendors have provided at the state-repository level. The map below shows the peer-state presence of three such vendors.

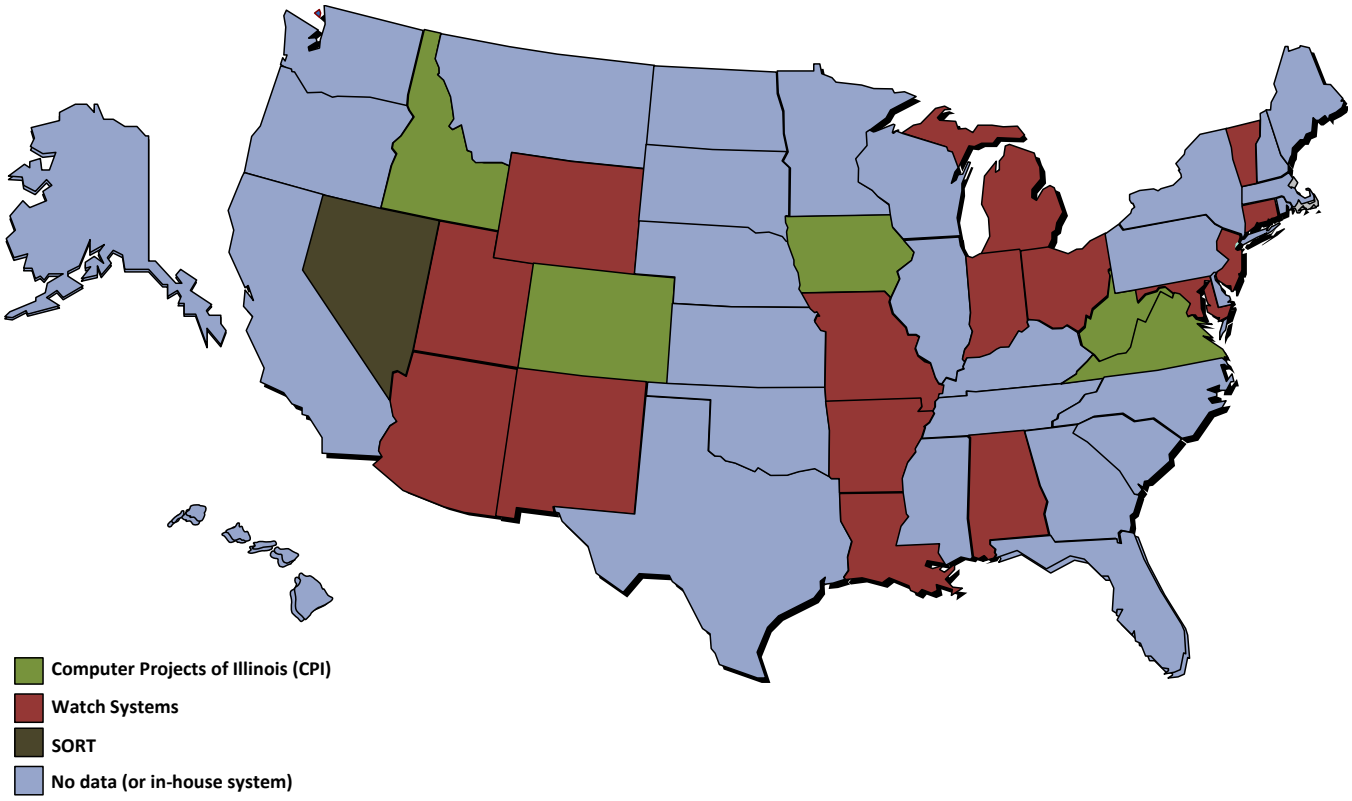


FIGURE A1-III – State-Level Repository Agencies With Vendor-Provided SOR Solutions

Vendor Pricing

For the states reporting use of vendor SOR products at the repository level, pricing is reported across the following ranges:

Vendor	Low	High
Computer Products of Illinois (CPI)	$400,000	$2 million
Watch Systems	$150,000	$300,000
Sex Offender Registry Tool (SORT)	Free License (Must pay for an approved consultant-implementor. Nevada paid $90,000.)	

TABLE A1-1 – Sample Vendor SOR Pricing

Commonly reported examples of factors influencing pricing included:

- Population of the state.
- Number of local law enforcement agencies requiring access.
- Systems-hosting method (e.g., on-premises, cloud, vendor hosted).
- Disaster recovery method (e.g., none, active/active, active/passive, other).
- Service level agreement for vendor support.
- Number and complexity of integrations with other repository agency systems (e.g., Computerized Criminal History [CCH], hot files, message switch).

Vendor Software Functionality

Each vendor reported its ability to provide external law enforcement agency (LEA) access for common functions such as registrations and subsequent registrations. Vendors also reported an internal administrative agency level of access for managing registrants and for communication with the NSOR. No vendor reported its own fully functional SOR mobile application; however, Tennessee did report the use of a vendor-developed SOR mobile application built specifically for the Tennessee Bureau of Investigation (TBI) by a vendor named Steeple Technologies.

Alternatives Analysis

Introduction

This section describes and evaluates the various options available to OSP to address the SOR problems and opportunities described above. Each option, or alternative, is evaluated using a structured set of criteria comprising the following elements:

- Defined and Prioritized Selection Criteria.
- Costs.

The benefits and risks associated with each alternative are inherent within their respective analytical summaries. The remainder of this section introduces assumptions and evaluation criteria and presents the analytical summaries for each identified alternative.

Assumptions

The following assumptions relate to the overall approach for considering how OSP will pursue a replacement for the SOR environment. Included are assumptions made regarding the project term, alternatives, trends, and approach:

- ***Assumption 1: SOR Replacement Scope*** – The scope for the SOR replacement includes the functionality offered by each of the major subsystems of the current SOR environment:
    - Law Enforcement Registration Portal (a.k.a. external application).
    - Sex Offender Registration System (a.k.a. internal application).
    - SORM (Mobile Application).
    - Public Website.
- ***Assumption 2: Current SORM Application Components Available for Reuse*** – The current SORM application represents a significant investment on behalf of OSP and is widely acclaimed for its usefulness. SORM has been officially recognized by the National Association of State Chief Information Officers (NASCIO) and the OSCIO. OSP asserts that any presented SOR replacement solution should examine the feasibility of reusing this investment, although reuse is not a strict requirement.
- ***Assumption 3: Systems Hosting*** – OSP will assume that a replacement system will be hosted at the State Data Center, as with other LEDS 20/20 components.
- ***Assumption 4: Technical Architecture Preferences*** – OSP is not currently limited by technical architectures and will entertain solutions that meet its needs regardless of underlying technologies, within reason. However, solutions that meet the goal of reducing technical diversity will be considered more responsive.
- ***Assumption 5: No Internal Capacity to Build Systems*** – OSP does not have internal capacity to build and/or design replacement SOR software systems internally. Any internal development efforts would rely on externally sourced software development experts working under OSP IT management.

Measurement Criteria

The SOR replacement alternatives analysis draws on the business and technical objectives previously stated. For reference, the alternatives analysis measurement criteria are outlined in the following table:

No.	Benefit/Risk Criteria	Definition	Weight
1	Provides a Consistent LEDS 20/20 User Experience	Provides a homogenous set of tools for those regularly working within the LEDS 20/20 suite of applications.	4
2	Streamlines the Volume of Service Providers	Reduces the number of vendors and OSP staff needed to fully maintain the application. Currently there are three vendors and several OSP full-time equivalents (FTEs).	4
3	Ensures a Long-Term Relationship with a SOR Solution Provider	Measured by contractual commitment term and adherence to contemporary terms and conditions.	3
4	Improves Business Processes	Addresses long-standing issues and deficiencies among tools, workflows, and business logic.	5
5	Complies With Emerging Standards	Makes it possible to apply changes in keeping with state and federal laws and standards without high levels of multisystem change orchestration.	3
6	Ensures That OSP Mobile Innovations Perpetuate	Either leverages SORM system components or otherwise provides similar functions.	5
7	Reduces Technical Diversity	Reduces the SOR solution footprint from the current five user interfaces, six applications, four databases, and several interfaces.	4
8	Reduces Support Requirements	Reduces support requirements from the current three vendors and one dedicated OSP support staff member.	2
9	Implements Disaster Recovery Capability	Can be included in OSP's existing disaster recovery plans, or has similar capability.	1

Weight Legend:
5 – Most Important
1 – Least Important

TABLE A1-2 – SOR Replacement Alternatives Analysis Measurement Criteria

Identified Alternatives

Four alternatives are evaluated in pursuit of a replacement SOR environment, as follows:

- ***Alternative 1: Do Nothing With the Current SOR Environment*** – Continue to operate the current SOR environment largely unchanged for the foreseeable future.
- ***Alternative 2: Incorporate SOR Into the LEDS 20/20 Implementation*** – Leverage the contractual arrangements with the existing solution vendor (DCI) to develop and implement the replacement SOR solution.
- ***Alternative 3: Acquire a COTS Solution*** – Pursue a competitive acquisition of the required SOR replacement solution.
- ***Alternative 4: Develop a Solution Internally*** – Pursue a program of replacing some or all of the current systems using internal staff and resources.

Each of the above alternatives is evaluated against the criteria set forth above.

Alternatives Criteria Scoring

A scoring system is used to subjectively measure the extent to which each option satisfies a particular element of the above-listed measurement criteria. Ratings have points associated with them, which will be multiplied by the measurement weight established by OSP to derive an overall score.

Rating Legend:

● = 5 Points (Significantly Satisfies)
◖ = 3 Points (Moderately Satisfies)
○ = 1 Point (Minimally Satisfies)

The resulting calculation/formula is as follows:

Measurement Weight X *Rating* = *Score*

In this way, scores for each selection criterion can be compared across alternatives and summed for an overall comparison of the alternatives. For reference, the minimum and maximum ranges for derived scores are as follows:

Minimum Scored Value Possible:	*31*
Maximum Scored Value Possible:	*155*

Alternative 1: Do Nothing With the Current SOR Environment

The first option on the improvement alternatives continuum available to OSP would be to do nothing or take no action and simply maintain the SOR environment as it is today. Below is a general description of the overall approach, selection criteria, costs, benefits, and risks.

Approach

The overarching approach elements of this option include:

- Negotiate continued maintenance agreements with Tailored Solutions for the foreseeable future, to include:
  - Continuing the current basic support service level agreements in place.
  - Seeking options to extend the basic maintenance contract for additional periods of time.
- Perform hardware refreshments, replacements, and expansions as necessary during the performance period, to ensure viable equipment and operating environment.
- Perform software refreshments, replacements, and expansions as necessary during the performance period to ensure viable equipment and operating environment.
- No new project management or consulting resources would be required under this option.
- No new staff would be required under this option.

Selection Criteria Summary

The following table summarizes how well Alternative 1 addresses the defined selection criteria:

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
1	Provides a Consistent LEDS 20/20 User Experience	4	○	4	• User experience for SOR remains the same, not consistent with LEDS 20/20.
2	Streamlines the Volume of Service Providers	4	○	4	• Does not reduce the number of required vendors and OSP staff to fully maintain the application.
3	Ensures a Long-Term Relationship with a SOR Solution Provider	3	○	3	• Does not ensure long-term contractual viability without significant changes to existing contractual arrangements. • Does not adhere to contemporary contract terms and conditions without significant changes to existing contractual arrangements.
4	Improves Business Processes	5	○	5	• Provides no new business process improvements.
5	Complies With Emerging Standards	3	○	3	• Current arrangements do not allow for the update of the environment to comply with federal- and/or state-mandated changes or operational updates without additional costs.
6	Ensures That OSP Mobile Innovations Perpetuate	5	●	25	• SORM application components are unchanged.
7	Reduces Technical Diversity	4	○	4	• Technical footprint of five user interfaces, six applications, four databases, and several interfaces will perpetuate.
8	Reduces Support Requirements	2	○	2	• No change to vendor and OSP support requirements.
9	Implements Disaster Recovery Capability	1	○	1	• No disaster recovery.
			Total:	***51***	

Weight Legend:
5 – Most Important
1 – Least Important

Rating Legend:
● = 5 Points (Significantly Satisfies)
◖ = 3 Points (Moderately Satisfies)
○ = 1 Point (Minimally Satisfies)

TABLE A1-3 – Selection Criteria Results for Alternative 1 (Do Nothing With the Current SOR Environment)

Alternative 2 – Incorporate SOR Into the LEDS 20/20 Implementation

Alternative 2 includes extending the current LEDS 20/20 contract with DCI to include the development and deployment of SOR functionality as part of the overall LEDS 20/20 implementation effort. Recognizing that this would be a sixth phase for the LEDS 20/20 project, this option would leverage the existing technologies and project teams to develop and deploy the SOR replacement solution.

Approach

The overarching approach elements of this option include:

- DCI will review OSP's SOR requirements and background materials, then return a proposed solution and costs.
- If DCI's proposal is acceptable, OSP will negotiate a change order with DCI to include SOR replacement as a sixth phase in the LEDS 20/20 project.
- OSP will update its contracts with Gartner and Online for service coverage through the end of LEDS 20/20 project Phase 6.

Selection Criteria Summary

The following table summarizes how well Alternative 2 addresses the defined selection criteria:

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
1	Provides a Consistent LEDS 20/20 User Experience	4	●	20	• User experience will be consistent with other DCI tools in the LEDS 20/20 environment (e.g., CCH, message switch, hot files).
2	Streamlines the Volume of Service Providers	4	●	20	• Will reduce the number of providers to one, with only administrative support from OSP rather than technical support as well.
3	Ensures a Long-Term Relationship With a SOR Solution Provider	3	●	15	• Approach will be bound by the terms of the existing long-term contract with DCI and the provisions of the operations and maintenance statement of work. • Approach adheres to the contemporary contract terms and conditions already existing in the OSP/DCI contract.
4	Improves Business Processes	5	●	25	• A positive DCI response to SOR requirements will ensure business improvements in the areas of registration, document management, transactional accounting, offender notifications, financial accounting, and offender tracking.
5	Complies With Emerging Standards	3	●	15	• Approach will fit well with existing contract provisions to apply TOUs related to the message switch in accordance with the NCIC 2000 standards.
6	Ensure That OSP Mobile Innovations Perpetuate	5	◖	15	• It is unknown whether DCI will elect to reuse any components of the existing SORM application. However, SORM application functions will be part of the SOR requirements that DCI must respond to in the affirmative to secure the Phase 6 work.
7	Reduces Technical Diversity	4	●	20	• Although DCI's technical solution is as yet unknown, it is presumed that DCI will propose building upon the existing technologies and architectures forming the basis for LEDS 20/20.
8	Reduces Support Requirements	2	●	10	• Will reduce the number of providers to one, with only administrative support from OSP rather than technical support as well.

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
9	Implements Disaster Recovery Capability	1	●	5	• Although DCI's technical solution is as yet unknown, it is presumed that DCI will propose building upon the infrastructure forming the basis for LEDS 20/20 disaster recovery capability.
			Total:	***145***	

Weight Legend:
5 – Most Important
1 – Least Important

Rating Legend:
● = 5 Points (Significantly Satisfies)
◖ = 3 Points (Moderately Satisfies)
○ = 1 Point (Minimally Satisfies)

TABLE A1-4 – Selection Criteria Results for Alternative 2 (Incorporate SOR Into the LEDS 20/20 Implementation)

Alternative 3 – Acquire a COTS Solution

Alternative 3 involves acquiring the SOR replacement solution from the open marketplace through a competitive procurement. This generally includes the preparation and execution of a procurement vehicle such as a request for proposals, selecting a vendor, and arriving at agreeable terms. Implementing the solution would occur outside of the LEDS 20/20 project structures.

Approach

The overarching approach elements of this option include:

- Executing a competitive solicitation process to engage the vendor marketplace in a formal solicitation for hardware, software, and services.
- Leveraging the background materials, requirements, and statements of work currently under development for the SOR replacement effort as part of the solicitation package.
- Developing a formal request for proposals plus vendor evaluation criteria.
- Selecting a new solution that comes in the form of a commercially offered application, configured and/or customized to meet OSP's needs.
- Acquiring new project management, analytical, QA, and consulting resources that may be required.
- Capitalizing on the expertise of current staff during the COTS transition and preparing them for new roles, such as administration, analytics, and configuration management, as the replacement system is implemented.

Selection Criteria Summary

The following table summarizes how well Alternative 3 addresses the defined selection criteria:

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
1	Provides a Consistent LEDS 20/20 User Experience	4	○	4	• Assuming DCI would not bid under this scenario, it is unlikely that another vendor could implement its COTS application in a manner that maintains a user experience consistent with LEDS 20/20 applications.
2	Streamlines the Volume of Service Providers	4	○	4	• Approach likely substitutes one vendor for another, and does not reduce the overall number of required vendors and OSP staff to fully maintain the application.
3	Ensures a Long-Term Relationship With a SOR Solution Provider	3	●	15	• Approach would be bound by the terms of the contract executed at the time of procurement and would likely include contemporary contract terms and conditions.
4	Improves Business Processes	5	◖	15	• COTS solutions by definition generally do not improve upon existing business processes; rather they create new processes that may or may not be as complete as legacy processes. • OSP has requirements for the improvement of current workflows. However, it is unlikely that they will be affected directly by a COTS offering.
5	Complies With Emerging Standards	3	●	15	• COTS offerings are compliant with current federal SOR standards, and given that many state laws are formed based on federal guidelines, there is a strong likelihood that COTS applications will be compliant with those standards. • The extent to which a COTS application will be able to keep up with periodic changes, such as those imposed by TOUs, will be an area of specific focus in the COTS vendor contract and will likely require special provisions.
6	Ensure That OSP Mobile Innovations Perpetuate	5	◖	15	• While vendor applications are generally capable of porting to a wide range of device types, OSP's market survey did not reveal any vendors with significant market share that have a specific mobile SOR offering. • Also unknown is the extent to which market vendors are willing and able to interface their SOR applications with OSP's existing SORM application.
7	Reduces Technical Diversity	4	◖	12	• COTS products are most likely capable of replacing OSP's internal and external SOR applications. To this extent, technical diversity will be reduced. However, it is unlikely that a COTS application will affect the mobile application or related archival and accounting processes.
8	Reduces Support Requirements	2	○	2	• No change to vendor and OSP support requirements; will effectively substitute one of the vendors for another.

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
9	Implements Disaster Recovery Capability	1	◖	3	• Although a COTS application would not be included as part of the overall LEDS 20/20 disaster recovery capability, vendors will need to satisfy OSP's requirements in this regard as part of the COTS procurement. • It is unlikely that this could extend to all aspects of the SOR mobile solution, because a COTS solution would be positioned only at the internal and external application components.
			Total:	***85***	

Weight Legend:
5 – Most Important
1 – Least Important

Rating Legend:
● = 5 Points (Significantly Satisfies)
◖ = 3 Points (Moderately Satisfies)
○ = 1 Point (Minimally Satisfies)

TABLE A1-5 – Selection Criteria Results for Alternative 3 (Acquire a COTS Solution)

Alternative 4 – Develop a Solution Internally

A fourth option available to OSP would be to replace the SOR environment with customized software developed internally. This may be accomplished by using existing technical resources and/or augmenting them with contracted outside technical expertise.

Approach

The overarching approach elements of this option include:

- Executing a process to engage the software development marketplace in a formal solicitation for development services and purchasing any requisite hardware and software tools (possibly competitively or from existing state contracts).
- Leveraging, as part of the solicitation package, the background materials, requirements, and statements of work currently under development for the SOR replacement effort.
- Selecting a development team adept with the tools and technical preferences currently utilized by OSP IT.
- Providing internal OSP staff or contracted staff as required under this option to manage the project and provide business and technical expertise during the transition to the new system, and also investing in training for existing staff as required.
- Capitalizing on the expertise of current staff during the COTS transition and preparing them for new roles, such as administration, analytics, and configuration management, as the replacement system is implemented.
- Building, testing, and deploying the new SOR solution.

Selection Criteria Summary

The following table summarizes how well Alternative 4 addresses the defined selection criteria:

No.	Benefit/Risk Criteria	Weight	Rating	Score	Justification
1	Provides a Consistent LEDS 20/20 User Experience	4	◖	12	• It is unlikely that OSP-contracted developers or another vendor could completely emulate the user experience currently under development by DCI for the LEDS 20/20 implementation. However, since this alternative is custom development, there is the possibility that the developers could largely emulate the LEDS 20/20 user interfaces.
2	Streamlines the Volume of Service Providers	4	◖	12	• Approach likely substitutes one vendor for a contracted internal resource, but it does reduce the overall number of required vendors by one. • The number of OSP staff needed to fully maintain the application will likely increase.
3	Ensures a Long-Term Relationship With a SOR Solution Provider	3	○	3	• Approach requires increased reliance on internal staffing or long-term relationships with contracted software development experts.
4	Improves Business Processes	5	●	25	• OSP will have the most flexibility with improving business processes under this solution, as OSP can direct contracted developers to address very specific elements of current workflows and processes.
5	Complies With Emerging Standards	3	◖	9	• Custom-developed software can be made compliant with prevailing standards. • The extent to which the custom-developed solution will be able to keep up with periodic changes, such as those imposed by TOUs, will largely be a function of the design and OSP's ability to manage and implement changes with or without contracted software development expertise.
6	Ensure That OSP Mobile Innovations Perpetuate	5	●	25	• Custom-developed software can be designed to interact with existing investments in OSP's SORM application. • OSP may well choose to alter the manner in which the underlying SORM infrastructure operates to be more streamlined.
7	Reduces Technical Diversity	4	◖	12	• Custom-developed software can be built upon OSP's technical architecture of choice. • The extent to which this choice is financially feasible or aligns well with other OSP technical offerings is unknown.
8	Reduces Support Requirements	2	○	2	• Because vendor support requirements will be eliminated following go-live, relying on contracted software development resources for long-term support is risky.
9	Implements Disaster Recovery Capability	1	◖	3	• A disaster recovery capability could be implemented as part of the custom development approach. • It is unlikely that this choice could leverage existing LEDS 20/20 efforts or extend to all aspects of the SOR mobile solution.
			Total:	***103***	

Weight Legend:	**Rating Legend:**
5 – Most Important	● = 5 Points (Significantly Satisfies)
1 – Least Important	◖ = 3 Points (Moderately Satisfies)
	○ = 1 Point (Minimally Satisfies)

TABLE A1-6 – Selection Criteria Results for Alternative 3 (Develop a Solution Internally)

Cost Analysis

Appendix A1-B presents the detailed financial worksheets associated with the SOR business case addendum, and comprises the following forms:

- ***Cash Flow Forms*** – These present the cash inflows and outflows associated with each alternative in terms of the following:
  - FORM 0 – Baseline Cash Flow.
  - FORM 1 – Alternative 1 Do Nothing With the Current SOR Environment Baseline Cash Flow.
  - FORM 2 – Alternative 2 Incorporate SOR Into LEDS 20/20 Baseline Cash Flow.
  - FORM 3 – Alternative 3 Acquire a COTS Solution Baseline Cash Flow.
  - FORM 4 – Alternative 4 Develop a Solution Internally Baseline Cash Flow.
- ***Incremental Cash Flow Forms*** – These present the incremental cash flows associated with each alternative, in terms of the following:
  - FORM 5 – Alternative 1 Do Nothing With the Current SOR Environment Incremental Cash Flow.
  - FORM 6 – Alternative 2 Incorporate SOR Into LEDS 20/20 Incremental Cash Flow.
  - FORM 7 – Alternative 3 Acquire a COTS Solution Incremental Cash Flow.
  - FORM 8 – Alternative 4 Develop a Solution Internally Incremental Cash Flow.
- ***Other Forms*** – The financials appendix includes additional summary views of financials:
  - FORM 9 – Graphical Cash-Flow Representations.
  - FORM 10 – Financial Metrics Summary.

The cost analysis metrics summary from FORM 10 is presented in the table below for ease of reference.

	Baseline	Alternative 1 Do Nothing With the Current SOR	Alternative 2 Incorporate SOR Into LEDS 20/20	Alternative 3 Acquire a COTS Solution	Alternative 4 Develop a Solution Internally
Net Cash Flow	($406.0)	($2,513.4)	($1,569.6)	($1,524.6)	($3,915.0)
Net Present Value (NPV) at 0.0%	($406.0)	($2,513.4)	($1,569.6)	($1,524.6)	($3,915.0)
Total Benefits	$0.0	$0.0	$1,114.5	$1,114.5	$0.0
Total Costs	($2,513.4)	($2,513.4)	($2,684.1)	($2,639.1)	($3,915.0)

$ in $1,000s

Numbers in parenthesis are negative numbers

TABLE A1-7 – Financial Metrics Summary

Cash Flow Data Points

The following points outline the informational basis for the analysis presented in Appendix A1-B and are organized by alternative.

Alternative 1: Do Nothing With the Current SORS Environment

This alternative maintains the current OSP SOR environment as-is and includes costs based on the following:

- Benefits/Gains: No benefits/gains above current operational capability.
- Personal Services: 1.25 FTEs at $150,000 annually.
- State Data Center: Hosting costs of $15,000 per fiscal biennium (FB), increasing 10% per biennium.
- Software: Incremental upgrades every 4 years, and annual maintenance fees starting at $666/mo., increasing by 10% each biennium.
- Hardware: None.
- IT Pro. Services: None.

Alternative 2: Incorporate SOR Into the LEDS 20/20 Implementation

This alternative replaces the current SOR as a new Phase 6 to the current LEDS 20/20 replacement project and includes costs based on the following:

- Benefits/Gains: Progressive reduction in internal OSP support staff FTEs over time.
- Personal Services: Costs reducing by 50%, 40%, 30% by the beginning of FB 2029.
- State Data Center: Hosting costs of $15,000 per biennium, increasing 10% per biennium.
  State Data Center consulting services needed to orchestrate the new SOR environment.
- Software: $1 million software development costs from DCI.
  Licensing continuing at 10% per year.
- Hardware: None.
- IT Pro. Services: $250,000 external project management.
  $100,000 operational augmentation to provide implementation assistance.
  $90,000 external QA.

Alternative 3: Acquire a COTS Solution

This alternative replaces the current SOR with COTS software acquired through a competitive procurement process and includes costs based on the following:

- Benefits/Gains: Progressive reduction in internal OSP support staff FTEs over time.
- Personal Services: Costs reducing by 50%, 40%, 30% by the beginning of FB 2029.
- State Data Center: Hosting costs of $15,000 per biennium, increasing 10% per biennium.
  SDC consulting services needed to orchestrate the new SOR environment and maintain it over time.
- Software: $500,000 software development costs.
  Licensing continuing at 10% per year.
- Hardware: None.
- IT Pro. Services: $250,000 external project management.
  $100,000 operational augmentation to provide implementation assistance.
  $90,000 external QA.

Alternative 5: Develop a Solution Internally

This alternative involves developing a replacement solution internally using OSP and contracted software development resources and includes costs based on the following:

- Benefits/Gains: None.
- Personal Services: Costs increasing by 10% per FB.
- State Data Center: Hosting costs of $15,000 per biennium, increasing 10% per biennium.
  $20,000 SDC consulting services needed to orchestrate new SOR environments and maintain them over time.
- Software: $50,000 software tools costs in FB 2023 and 2027 for upgrades.
  Licensing continuing at 10% per year.
- Hardware: None.
- IT Pro. Services: $250,000 external project management.
  $100,000 operational augmentation to provide implementation assistance.
  $90,000 external QA.

Alternatives Summary

Below is a summary view of how well each identified alternative performed in comparison to defined benefit/risk criteria. Explanations for how summary scores were calculated are provided subsequently.

No.	Benefit/Risk Criteria	1. Do Nothing With the Current SORS Systems	2. Incorporate SOR Into the LEDS 20/20	3. Acquire a COTS Solution	4. Develop a Solution Internally
1	Provides a Consistent LEDS 20/20 User Experience.	○	●	○	◖
2	Streamlines the Volume of Service Providers.	○	●	○	◖
3	Ensures a Long-Term Relationship With a SOR Solution Provider.	○	●	●	○
4	Improves Business Processes.	○	●	◖	●
5	Complies With Emerging Standards.	○	●	●	◖
6	Ensures That OSP Mobile Innovations Perpetuate.	●	◖	◖	●
7	Reduces Technical Diversity.	○	●	◖	◖

No.	Benefit/Risk Criteria	1. Do Nothing With the Current SORS Systems	2. Incorporate SOR Into the LEDS 20/20	3. Acquire a COTS Solution	4. Develop a Solution Internally
8	Reduces Support Requirements.	○	●	○	○
9	Implements Disaster Recovery Capability.	○	●	◖	◖
	Calculated Score:	***51 / 155***	***145 / 155***	***85 / 155***	***103 / 155***

Legend:
●= Significantly Satisfies
◖ = Moderately Satisfies
○= Minimally Satisfies

Calculated Score Limits:
31 = Lowest Possible Score
155 = Highest Possible Score

TABLE A1-8 – Selection Criteria and Weight Summary

Ranking the Current Alternatives

Below is a summary view of the relative ranking of each alternative based on the analyses conducted in the previous sections. Note that this does not take into account the financial analyses, as more detailed financial information is anticipated as the effort continues.

Option	SOR Replacement Strategy	Calculated Score	Relative Rank
Alternative 1	Do Nothing With the Current SOR Environment	51/155	4
Alternative 2	***Incorporate SOR Into the LEDS 20/20 Implementation***	***145/155***	***1***
Alternative 3	Acquire a COTS Solution	85/155	3
Alternative 4	Develop a Solution Internally	103/155	2

TABLE A1-9 –Rankings of the Alternatives

As indicated above, Alternative 2 (Incorporate SOR Into the LEDS 20/20 Implementation) is the highest-ranked solution, for the many reasons discussed throughout this section of the business case.

Conclusions

This section outlines the conclusions of the business case.

Conclusions

The following conclusions are drawn from the preceding analyses.

Current SOR Environment Analysis Conclusions

The points below detail the conclusions associated with the analysis of the current SOR environment.

Conclusions – Business-Related

- ***Conclusion 1: Unnecessary Reliance on Paper-Based Processes*** – All of a prior day's initial and subsequent registrations submitted electronically via the external law enforcement application are printed at OSP as a means of verifying transactions residing in the SOR and related systems. Although there is no evidence of missing transactions, this printing has perpetuated itself as a core daily practice. (The printed registrations are shredded at day's end.)
- ***Conclusion 2: Core Accounting Functions Managed Outside of the SOR Environment*** – The current SOR environment does not include the core accounting functions necessary to process offender fees, delinquencies, billing tracking, and related functions. Additionally, reporting to the State Financial Management System for tracking offender payments is managed outside of the SOR.
- ***Conclusion 3: Unreliable Notice of Subjects Requiring Registration*** – OSP SOR staff do not have a definitive awareness of persons ordered to register. Subjects are ordered by the courts to register as a condition of the adjudication. Often, though, offenders are remanded to the custody of the Oregon Department of Corrections (ODOC) or the BoPPPS, and on the first offense, subjects are not required to register as sex offenders until they are released from DOC or BoPPPS supervision. For that reason, OSP is not always aware of a supervision release that should trigger a subject's requirement to register. This can cause a situation in which OSP is unaware that a subject required to register has failed to do so. It is difficult to report empirically the frequency of this circumstance, but there is a general awareness that this does happen often.

Conclusions – Technical-Related

- ***Conclusion 4: The Current SOR Is Highly Complex*** – The SOR solution footprint comprises five user interfaces, six applications, four databases, and several intersystem interfaces. These components are also inconsistent in terms of their underlying technologies (e.g., development environments, database management systems, client types, or operating systems). This structure is complex and is a by-product of development and implementations over time to meet emerging business needs. More modern systems rely on singular application and database topologies, which reduces support and maintenance complexities.
- ***Conclusion 5: Reliance on Multiple Support Vendors and OSP Staff*** – OSP must work with multiple service providers to maintain and operate the many underlying systems that make up the SOR environment. This includes those elements developed and supported by internal OSP staff, such as the SORM application. Any required or requested changes must be orchestrated among several providers and internal staff, which have differing levels of contractual commitment, availability, and interest in maintaining their piece of the overall SOR solution.

Conclusions – Alternatives-Related

- ***Conclusion 6: Current Mobile Functionality Largely Unavailable in the Vendor Market*** – No respondent peers or vendors reported mobile applications, which have been cited as a key component of the current environment. Only Tennessee was found to have a mobile application; however, it was custom built by a development vendor.
- ***Conclusion 7: Current Vendor Cost Estimates Are Wide-Ranging*** – Mainstream vendor costs ranged from $140,000 to $2 million. However, these were not found to be consistent in terms of available functionality matching the needs of OSP, especially in the area of mobile applications. It is unlikely that a more precise estimate from market leaders would be available without a formal solicitation.
- ***Conclusion 8: Alternative 2 Appears Most Compelling Relative to Objectives*** – At this time, and noting a lack of financial cost information, Alternative 2 (Incorporate SOR Into the LEDS 20/20 Implementation) appears to meet the majority of OSP's stated business and technical objectives. This alternative outpaced all other alternatives by a considerable margin.
- ***Conclusion 9: Internal Development Not an Option*** – OSP does not have the resources necessary to build and deploy solution software. Resources are primarily tasked with the operation and maintenance of current systems, and largely do not possess the skills, tools, or organizational resources necessary to develop and support custom solutions of this magnitude. Additionally, OSP has adopted a strategic direction to no longer develop and deploy software solutions internally.

Addendum 1 Appendices

Addendum 1 contains the following appendix:

- APPENDIX A1-B – Cost Analysis
  Note: Appendix A1-A - Sex Offender Registry Current Environment Analysis has been removed from this version of the Business Case. It remains a standalone document.

ADDENDUM APPENDIX A1-B –
Cost Analysis

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE – SOR ADDENDUM
BASELINE CASH FLOW

BASELINE CASH FLOW

$ in 1,000s

Discount rate 0.0%

Discount rate is entered on Proposal CF Worksheet

Blue cells are for user input (unlocked)
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2021	Jun 30 2023	Jun 30 2025	Jun 30 2027	Jun 30 2029	TOTAL
BENEFITS / GAINS						
Benefit item 1	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 2	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 3	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 4	0.0	0.0	0.0	0.0	0.0	0.0
Total Benefits/Gains	0.0	0.0	0.0	0.0	0.0	0.0
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	(375.0)	(412.5)	(453.8)	(499.1)	(549.0)	(2289.4)
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	0.0	0.0	0.0	0.0	0.0	0.0
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	0.0	0.0	0.0	0.0	0.0	0.0
Hosting	(5.0)	(5.5)	(6.1)	(6.7)	(7.3)	(30.5)
Storage	(5.0)	(5.5)	(6.1)	(6.7)	(7.3)	(30.5)
Network	(5.0)	(5.5)	(6.1)	(6.7)	(7.3)	(30.5)
Software Costs						
SW Purchase/Upgrade	0.0	(20.0)	0.0	(24.0)	0.0	(44.0)
SW License Maintenance	(16.0)	(16.8)	(17.6)	(18.5)	(19.4)	(88.4)
Hardware Costs						
Hardware Purchase/Upgrade	0.0	0.0	0.0	0.0	0.0	0.0
Hardware Ongoing Maint	0.0	0.0	0.0	0.0	0.0	0.0
IT Professional Services						
Project Dev/Implementation	0.0	0.0	0.0	0.0	0.0	0.0
Operational Staff	0.0	0.0	0.0	0.0	0.0	0.0
Operational Augmentation	0.0	0.0	0.0	0.0	0.0	0.0
Other Costs	0.0	0.0	0.0	0.0	0.0	0.0
Total Costs	(406.0)	(465.8)	(489.5)	(561.6)	(590.4)	(2513.4)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	0.0	0.0	0.0	0.0	0.0
Costs	(406.0)	(465.8)	(489.5)	(561.6)	(590.4)	(2513.4)
NET CASH FLOW	**(406.0)**	**(465.8)**	**(489.5)**	**(561.6)**	**(590.4)**	**(2513.4)**
Cumulative Net CF	(406.0)	(871.8)	(1361.3)	(1433.4)	(1951.8)	(2513.4)
Discounted Cash Flow						**NPV**
At 0.0%	(406.0)	(465.8)	(489.5)	(561.6)	(590.4)	(2513.4)

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE – SOR ADDENDUM

BASELINE CASH FLOW

ALT 1 - DO NOTHING CASH FLOW

$ in 1,000s

Discount rate 0.0%

Discount rate is entered on Proposal CF Worksheet

Blue cells are for user input (unlocked)
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2021	Jun 30 2023	Jun 30 2025	Jun 30 2027	Jun 30 2029	TOTAL
BENEFITS / GAINS						
Benefit item 1	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 2	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 3	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 4	0.0	0.0	0.0	0.0	0.0	0.0
Total Benefits/Gains	0.0	0.0	0.0	0.0	0.0	0.0
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	(375.0)	(412.5)	(453.8)	(499.1)	(549.0)	(2289.4)
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	0.0	0.0	0.0	0.0	0.0	0.0
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	0.0	0.0	0.0	0.0	0.0	0.0
Hosting	(5.0)	(5.5)	(6.1)	(6.7)	(7.3)	(30.5)
Storage	(5.0)	(5.5)	(6.1)	(6.7)	(7.3)	(30.5)
Network	(5.0)	(5.5)	(6.1)	(6.7)	(7.3)	(30.5)
Software Costs						
SW Purchase/Upgrade	0.0	(20.0)	0.0	(24.0)	0.0	(44.0)
SW License Maintenance	(16.0)	(16.8)	(17.6)	(18.5)	(19.4)	(88.4)
Hardware Costs						
Hardware Purchase/Upgrade	0.0	0.0	0.0	0.0	0.0	0.0
Hardware Ongoing Maint	0.0	0.0	0.0	0.0	0.0	0.0
IT Professional Services						
Project Dev/Implementation	0.0	0.0	0.0	0.0	0.0	0.0
Operational Staff	0.0	0.0	0.0	0.0	0.0	0.0
Operational Augmentation	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
Total Costs	(406.0)	(465.8)	(489.5)	(561.6)	(590.4)	(2513.4)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	0.0	0.0	0.0	0.0	0.0
Costs	(406.0)	(465.8)	(489.5)	(561.6)	(590.4)	(2513.4)
NET CASH FLOW	**(406.0)**	**(465.8)**	**(489.5)**	**(561.6)**	**(590.4)**	**(2513.4)**
Cumulative Net CF	(406.0)	(871.8)	(1361.3)	(1433.4)	(1951.8)	(2513.4)
Discounted Cash Flow						**NPV**
At 0.0%	(406.0)	(465.8)	(489.5)	(561.6)	(590.4)	(2513.4)

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE – SOR ADDENDUM

BASELINE CASH FLOW

ALT 2 - INCORPORATE WITH LEDS 20/20 CASH FLOW

$ in 1,000s

Discount rate 0.0%

The discount rate entered here will be used on all worksheets

Blue cells are for user input (unlocked)
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2021	Jun 30 2023	Jun 30 2025	Jun 30 2027	Jun 30 2029	TOTAL
BENEFITS / GAINS						
Reduced Internal Staff Support		187.5	225.0	292.5	409.5	1114.5
Benefit item 2						0.0
Benefit item 3						0.0
Benefit item 4						0.0
Total Benefits/Gains	0.0	187.5	225.0	292.5	409.5	1114.5
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	(375.0)	(187.5)	(150.0)	(82.5)	34.5	(760.5)
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	0.0	0.0	0.0	0.0	0.0	0.0
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	0.0	(11.0)	0.0	0.0	0.0	(11.0)
Hosting	(5.0)	(5.5)	(6.1)	(6.7)	(7.3)	(30.5)
Storage	(5.0)	(5.5)	(6.1)	(6.7)	(7.3)	(30.5)
Network	(5.0)	(5.5)	(6.1)	(6.7)	(7.3)	(30.5)
Software Costs						
SW Purchase/Upgrade	0.0	(1000.0)	0.0	0.0	0.0	(1000.0)
SW License Maintenance	0.0	(50.0)	(100.0)	(110.0)	(121.0)	(381.0)
Hardware Costs						
Hardware Purchase/Upgrade	0.0	0.0	0.0	0.0	0.0	0.0
Hardware Ongoing Maint	0.0	0.0	0.0	0.0	0.0	0.0
IT Professional Services						
Project Dev/Implementation	0.0	(250.0)	0.0	0.0	0.0	(250.0)
Operational Staff	0.0	0.0	0.0	0.0	0.0	0.0
Operational Augmentation	0.0	(100.0)	0.0	0.0	0.0	(100.0)
Other	0.0	(90.0)	0.0	0.0	0.0	(90.0)
Total Costs	(390.0)	(1705.0)	(268.2)	(212.5)	(108.5)	(2684.1)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	187.5	225.0	292.5	409.5	1114.5
Costs	(390.0)	(1705.0)	(268.2)	(212.5)	(108.5)	(2684.1)
NET CASH FLOW	**(390.0)**	**(1517.5)**	**(43.2)**	**80.0**	**301.0**	**(1569.6)**
Cumulative Net CF	(390.0)	(1907.5)	(1950.7)	(1870.6)	(1649.6)	(1569.6)
Discounted Cash Flow						**NPV**
At 0.0%	(390.0)	(1517.5)	(43.2)	80.0	301.0	(1569.6)

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE – SOR ADDENDUM

BASELINE CASH FLOW

ALT 3 - ACQUIRE COTS SOLUTION CASH FLOW

$ in 1,000s

Discount rate 0.0%

Discount rate is entered on Proposal CF Worksheet

Blue cells are for user input (unlocked)
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2021	Jun 30 2023	Jun 30 2025	Jun 30 2027	Jun 30 2029	TOTAL
BENEFITS / GAINS						
Reduce Internal Staff Support		187.5	225.0	292.5	409.5	1114.5
Benefit item 2						0.0
Benefit item 3						0.0
Benefit item 4						0.0
Total Benefits/Gains	0.0	187.5	225.0	292.5	409.5	1114.5
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	(375.0)	(187.5)	(150.0)	(82.5)	34.5	(760.5)
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	0.0	0.0	0.0	0.0	0.0	0.0
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	0.0	(27.0)	(13.0)	(13.0)	(13.0)	(66.0)
Hosting	(5.0)	(5.5)	(6.1)	(6.7)	(7.3)	(30.5)
Storage	(5.0)	(5.5)	(6.1)	(6.7)	(7.3)	(30.5)
Network	(5.0)	(5.5)	(6.1)	(6.7)	(7.3)	(30.5)
Software Costs						
SW Purchase/Upgrade	0.0	(500.0)	0.0	(200.0)	0.0	(700.0)
SW License Maintenance	0.0	(50.0)	(100.0)	(110.0)	(121.0)	(381.0)
Hardware Costs						
Hardware Purchase/Upgrade	0.0	0.0	0.0	0.0	0.0	0.0
Hardware Ongoing Maint	0.0	0.0	0.0	0.0	0.0	0.0
IT Professional Services						
Project Dev/Implementation	0.0	(200.0)	0.0	0.0	0.0	(200.0)
Operational Staff	0.0	(250.0)	0.0	0.0	0.0	(250.0)
Operational Augmentation	0.0	(100.0)	0.0	0.0	0.0	(100.0)
Other	0.0	(90.0)	0.0	0.0	0.0	(90.0)
Total Costs	(390.0)	(1421.0)	(281.2)	(425.5)	(121.5)	(2639.1)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	187.5	225.0	292.5	409.5	1114.5
Costs	(390.0)	(1421.0)	(281.2)	(425.5)	(121.5)	(2639.1)
NET CASH FLOW	**(390.0)**	**(1233.5)**	**(56.2)**	**(133.0)**	**288.0**	**(1524.6)**
Cumulative Net CF	(390.0)	(1623.5)	(1679.7)	(1812.6)	(1391.6)	(1524.6)
Discounted Cash Flow						**NPV**
At 0.0%	(390.0)	(1233.5)	(56.2)	(133.0)	288.0	(1524.6)

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE – SOR ADDENDUM
BASELINE CASH FLOW

ALT 4 - DEVELOP SOLUTION INTERNALLY CASH FLOW

$ in 1,000s

Discount rate 0.0%

Discount rate is entered on Proposal CF Worksheet

Blue cells are for user input (unlocked)
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2021	Jun 30 2023	Jun 30 2025	Jun 30 2027	Jun 30 2029	TOTAL
BENEFITS / GAINS						
Benefit item 1	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 2	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 3	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 4	0.0	0.0	0.0	0.0	0.0	0.0
Total Benefits/Gains	0.0	0.0	0.0	0.0	0.0	0.0
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	(375.0)	(412.5)	(577.5)	(635.3)	(698.8)	(2699.0)
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	0.0	(500.0)	0.0	0.0	0.0	(500.0)
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	0.0	(20.0)	0.0	0.0	0.0	(20.0)
Hosting	(5.0)	(11.0)	(6.0)	(6.6)	(7.3)	(35.9)
Storage	(5.0)	(11.0)	(6.0)	(6.6)	(7.3)	(35.9)
Network	(5.0)	(11.0)	(6.0)	(6.6)	(7.3)	(35.9)
Software Costs						
SW Purchase/Upgrade	0.0	(50.0)	0.0	(60.0)	0.0	(110.0)
SW License Maintenance	(16.0)	(16.8)	(17.6)	(18.5)	(19.4)	(88.4)
Hardware Costs						
Hardware Purchase/Upgrade	0.0	0.0	0.0	0.0	0.0	0.0
Hardware Ongoing Maint	0.0	0.0	0.0	0.0	0.0	0.0
IT Professional Services						
Project Dev/Implementation	0.0	(200.0)	0.0	0.0	0.0	(200.0)
Operational Staff	0.0	0.0	0.0	0.0	0.0	0.0
Operational Augmentation	0.0	(100.0)	0.0	0.0	0.0	(100.0)
Other	0.0	(90.0)	0.0	0.0	0.0	(90.0)
Total Costs	(406.0)	(1422.3)	(613.1)	(733.6)	(740.0)	(3915.0)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	0.0	0.0	0.0	0.0	0.0
Costs	(406.0)	(1422.3)	(613.1)	(733.6)	(740.0)	(3915.0)
NET CASH FLOW	**(406.0)**	**(1422.3)**	**(613.1)**	**(733.6)**	**(740.0)**	**(3915.0)**
Cumulative Net CF	(406.0)	(1828.3)	(2441.4)	(3175.0)	(3181.4)	(3915.0)
Discounted Cash Flow						**NPV**
At 0.0%	(406.0)	(1422.3)	(613.1)	(733.6)	(740.0)	(3915.0)

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE – SOR ADDENDUM
BASELINE CASH FLOW

ALT 1 - DO NOTHING INCREMENTAL CASH FLOW
All figures represent (Proposal Value) - (Current State Value)

$ in 1,000s

Discount rate 0.0%

Discount rate is entered on Proposal CF Worksheet

All values on this worksheet are derived from entries on other sheets
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2017	Jun 30 2019	Jun 30 2021	Jun 30 2023	Jun 30 2025	TOTAL
BENEFITS / GAINS						
Benefit item 1	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 2	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 3	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 4	0.0	0.0	0.0	0.0	0.0	0.0
Total Benefits/Gains	0.0	0.0	0.0	0.0	0.0	0.0
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	0.0	0.0	0.0	0.0	0.0	0.0
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	0.0	0.0	0.0	0.0	0.0	0.0
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	0.0	0.0	0.0	0.0	0.0	0.0
Hosting	0.0	0.0	0.0	0.0	0.0	0.0
Storage	0.0	0.0	0.0	0.0	0.0	0.0
Network	0.0	0.0	0.0	0.0	0.0	0.0
Software Costs						
SW Purchase/Upgrade	0.0	0.0	0.0	0.0	0.0	0.0
SW License Maintenance	0.0	0.0	0.0	0.0	0.0	0.0
Hardware Costs						
Hardware Purchase/Upgrade	0.0	0.0	0.0	0.0	0.0	0.0
Hardware Ongoing Maint	0.0	0.0	0.0	0.0	0.0	0.0
IT Professional Services						
Project Dev/Implementation	0.0	0.0	0.0	0.0	0.0	0.0
Operational Staff	0.0	0.0	0.0	0.0	0.0	0.0
Operational Augmentation	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0
Total Costs	0.0	0.0	0.0	0.0	0.0	0.0
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	0.0	0.0	0.0	0.0	0.0
Costs	0.0	0.0	0.0	0.0	0.0	0.0
NET CASH FLOW	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Cumulative Net CF	0.0	0.0	0.0	0.0	0.0	0.0
Discounted Cash Flow						**NPV**
At 0.0%	0.0	0.0	0.0	0.0	0.0	0.0

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE – SOR ADDENDUM
BASELINE CASH FLOW

ALT 3 - INCORPORATE WITH LEDS 20/20 INCREMENTAL CASH FLOW
All figures represent (Proposal Value) - (Current State Value)

$ in 1,000s

Discount rate 0.0%

Discount rate is entered on Proposal CF Worksheet

All values on this worksheet are derived from entries on other sheets
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2017	Jun 30 2019	Jun 30 2021	Jun 30 2023	Jun 30 2025	TOTAL
BENEFITS / GAINS						
Benefit item 1	0.0	187.5	225.0	292.5	409.5	1114.5
Benefit item 2	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 3	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 4	0.0	0.0	0.0	0.0	0.0	0.0
Total Benefits/Gains	0.0	187.5	225.0	292.5	409.5	1114.5
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	0.0	225.0	303.8	416.6	583.5	1528.9
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	0.0	0.0	0.0	0.0	0.0	0.0
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	0.0	(11.0)	0.0	0.0	0.0	(11.0)
Hosting	0.0	0.0	0.0	0.0	0.0	0.0
Storage	0.0	0.0	0.0	0.0	0.0	0.0
Network	0.0	0.0	0.0	0.0	0.0	0.0
Software Costs						
SW Purchase/Upgrade	0.0	(980.0)	0.0	24.0	0.0	(956.0)
SW License Maintenance	16.0	(33.2)	(82.4)	(91.5)	(101.6)	(292.6)
Hardware Costs						
Hardware Purchase/Upgrade	0.0	0.0	0.0	0.0	0.0	0.0
Hardware Ongoing Maint	0.0	0.0	0.0	0.0	0.0	0.0
IT Professional Services						
Project Dev/Implementation	0.0	(250.0)	0.0	0.0	0.0	(250.0)
Operational Staff	0.0	0.0	0.0	0.0	0.0	0.0
Operational Augmentation	0.0	(100.0)	0.0	0.0	0.0	(100.0)
Other	0.0	(90.0)	0.0	0.0	0.0	(90.0)
Total Costs	16.0	(1239.2)	221.4	349.1	482.0	(170.7)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	187.5	225.0	292.5	409.5	1114.5
Costs	16.0	(1239.2)	221.4	349.1	482.0	(170.7)
NET CASH FLOW	**16.0**	**(1051.7)**	**446.4**	**641.6**	**891.5**	**943.8**
Cumulative Net CF	16.0	(1035.7)	(589.3)	52.3	302.2	943.8
Discounted Cash Flow						**NPV**
At 0.0%	16.0	(1051.7)	446.4	641.6	891.5	943.8

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE – SOR ADDENDUM
BASELINE CASH FLOW

ALT 3 - ACQUIRE COTS INCREMENTAL CASH FLOW
All figures represent (Proposal Value) - (Current State Value)

$ in 1,000s

Discount rate 0.0%

Discount rate is entered on Proposal CF Worksheet

All values on this worksheet are derived from entries on other sheets
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2017	Jun 30 2019	Jun 30 2021	Jun 30 2023	Jun 30 2025	TOTAL
BENEFITS / GAINS						
Benefit item 1	0.0	187.5	225.0	292.5	409.5	1114.5
Benefit item 2	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 3	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 4	0.0	0.0	0.0	0.0	0.0	0.0
Total Benefits/Gains	0.0	187.5	225.0	292.5	409.5	1114.5
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	0.0	225.0	303.8	416.6	583.5	1528.9
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	0.0	0.0	0.0	0.0	0.0	0.0
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	0.0	(27.0)	(13.0)	(13.0)	(13.0)	(66.0)
Hosting	0.0	0.0	0.0	0.0	0.0	0.0
Storage	0.0	0.0	0.0	0.0	0.0	0.0
Network	0.0	0.0	0.0	0.0	0.0	0.0
Software Costs						
SW Purchase/Upgrade	0.0	(480.0)	0.0	(176.0)	0.0	(656.0)
SW License Maintenance	16.0	(33.2)	(82.4)	(91.5)	(101.6)	(292.6)
Hardware Costs						
Hardware Purchase/Upgrade	0.0	0.0	0.0	0.0	0.0	0.0
Hardware Ongoing Maint	0.0	0.0	0.0	0.0	0.0	0.0
IT Professional Services						
Project Dev/Implementation	0.0	(200.0)	0.0	0.0	0.0	(200.0)
Operational Staff	0.0	(250.0)	0.0	0.0	0.0	(250.0)
Operational Augmentation	0.0	(100.0)	0.0	0.0	0.0	(100.0)
Other	0.0	(90.0)	0.0	0.0	0.0	(90.0)
Total Costs	16.0	(955.2)	208.4	136.1	469.0	(125.7)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	187.5	225.0	292.5	409.5	1114.5
Costs	16.0	(955.2)	208.4	136.1	469.0	(125.7)
NET CASH FLOW	**16.0**	**(767.7)**	**433.4**	**428.6**	**878.5**	**988.8**
Cumulative Net CF	16.0	(751.7)	(318.3)	110.3	560.2	988.8
Discounted Cash Flow						**NPV**
At 0.0%	16.0	(767.7)	433.4	428.6	878.5	988.8

OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE – SOR ADDENDUM
BASELINE CASH FLOW

ALT 4 - DEVELOP INTERNALLY INCREMENTAL CASH FLOW
All figures represent (Proposal Value) - (Current State Value)

$ in 1,000s

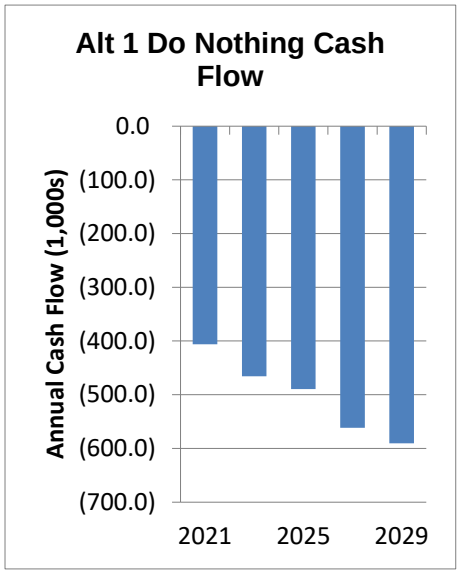
Discount rate 0.0%

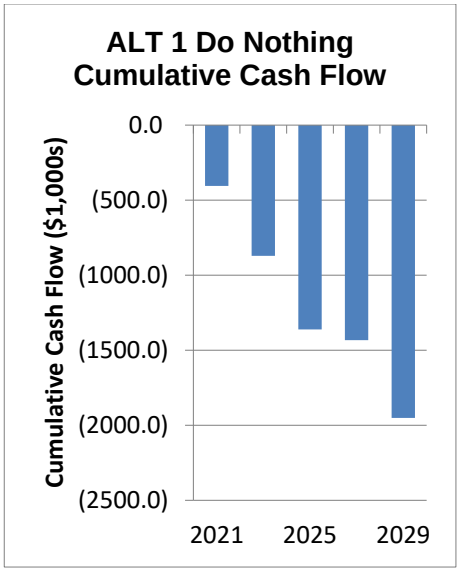
Discount rate is entered on Proposal CF Worksheet

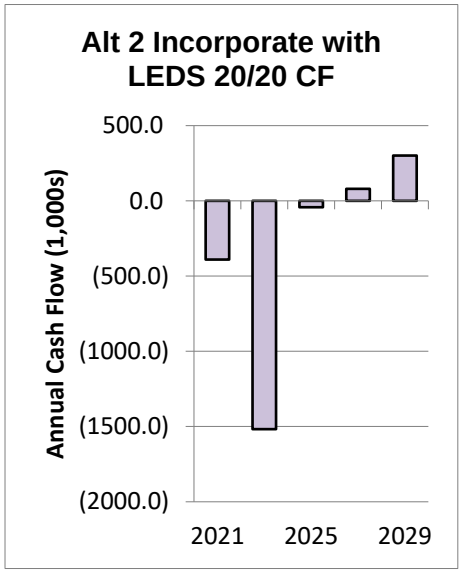
All values on this worksheet are derived from entries on other sheets
Yellow cells hold formulas and are calculated automatically (locked)
Positive numbers are cash inflows
Numbers in parenthesis are negative numbers (cash outflows)

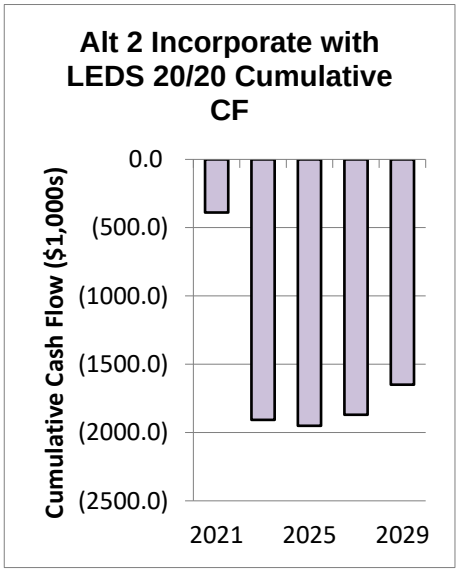
$ in 1,000s	*Fiscal Biennia Ending* Jun 30 2017	Jun 30 2019	Jun 30 2021	Jun 30 2023	Jun 30 2025	TOTAL
BENEFITS / GAINS						
Benefit item 1	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 2	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 3	0.0	0.0	0.0	0.0	0.0	0.0
Benefit item 4	0.0	0.0	0.0	0.0	0.0	0.0
Total Benefits/Gains	0.0	0.0	0.0	0.0	0.0	0.0
COST ITEMS inflows (outflows)						
Personal Services Costs (Salaries & Benefits)						
State Perm Staff	0.0	0.0	(123.8)	(136.1)	(149.7)	(409.6)
State Temp Staff	0.0	0.0	0.0	0.0	0.0	0.0
State LD Staff	0.0	(500.0)	0.0	0.0	0.0	(500.0)
Services & Supplies/Capital Outlay Costs						
State Data Center Costs						
Consulting Services	0.0	(20.0)	0.0	0.0	0.0	(20.0)
Hosting	0.0	(5.5)	0.1	0.1	0.1	(5.3)
Storage	0.0	(5.5)	0.1	0.1	0.1	(5.3)
Network	0.0	(5.5)	0.1	0.1	0.1	(5.3)
Software Costs						
SW Purchase/Upgrade	0.0	(30.0)	0.0	(36.0)	0.0	(66.0)
SW License Maintenance	0.0	0.0	0.0	0.0	0.0	0.0
Hardware Costs						
Hardware Purchase/Upgrade	0.0	0.0	0.0	0.0	0.0	0.0
Hardware Ongoing Maint	0.0	0.0	0.0	0.0	0.0	0.0
IT Professional Services						
Project Dev/Implementation	0.0	(200.0)	0.0	0.0	0.0	(200.0)
Operational Staff	0.0	0.0	0.0	0.0	0.0	0.0
Operational Augmentation	0.0	(100.0)	0.0	0.0	0.0	(100.0)
Other	0.0	(90.0)	0.0	0.0	0.0	(90.0)
Total Costs	0.0	(956.5)	(123.6)	(172.0)	(149.6)	(1401.6)
CASH FLOW SUMMARY inflows (outflows)						
Cash inflows (outflows)						
Benefits and Gains	0.0	0.0	0.0	0.0	0.0	0.0
Costs	0.0	(956.5)	(123.6)	(172.0)	(149.6)	(1401.6)
NET CASH FLOW	**0.0**	**(956.5)**	**(123.6)**	**(172.0)**	**(149.6)**	**(1401.6)**
Cumulative Net CF	0.0	(956.5)	(1080.1)	(1252.1)	(1229.7)	(1401.6)
Discounted Cash Flow						**NPV**
At 0.0%	0.0	(956.5)	(123.6)	(172.0)	(149.6)	(1401.6)

BASELINE CASH FLOW

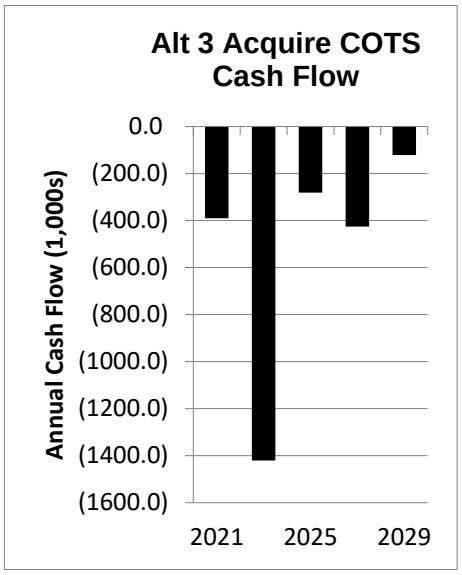


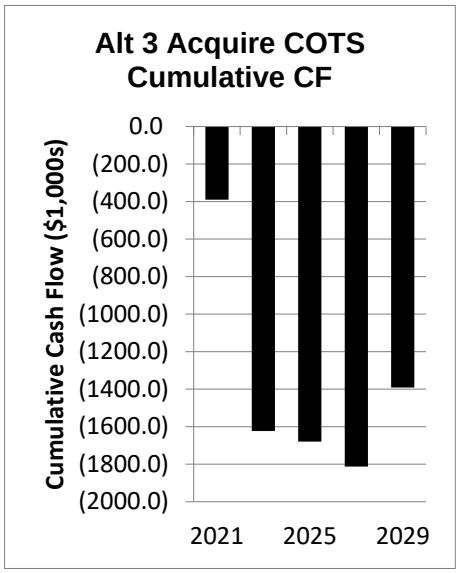


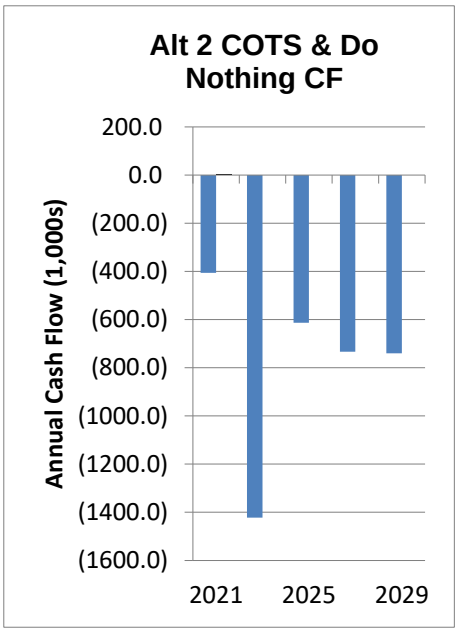


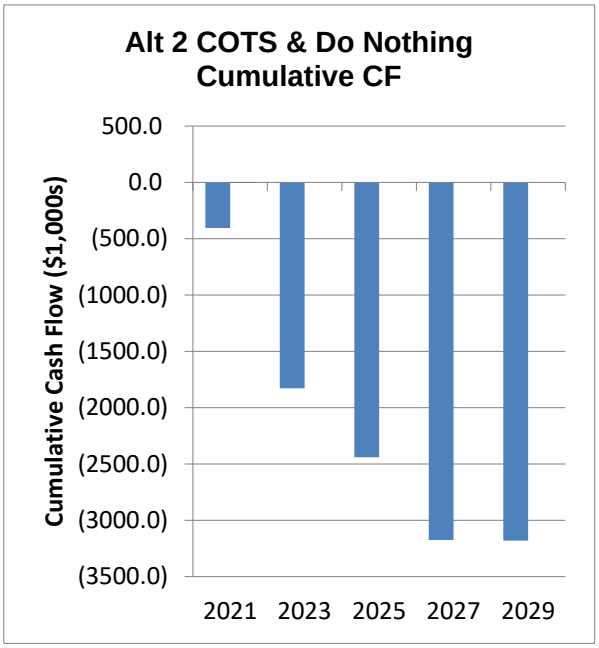


BASELINE CASH FLOW









OREGON STATE POLICE
CRIMEVUE REPLACEMENT BUSINESS CASE – SOR ADDENDUM

BASELINE CASH FLOW

Financial Metrics Summary

	Baseline	Alternative 1 Do Nothing	Alternative 2 Inc. w/ LEDS 20/20	Alternative 3 Acquire COTS	Alternative 4 Develop Internally
Net Cash Flow	($406.0)	($2,513.4)	($1,569.6)	($1,524.6)	($3,915.0)
NPV at 0.0%	($406.0)	($2,513.4)	($1,569.6)	($1,524.6)	($3,915.0)
Total Benefits	$0.0	$0.0	$1,114.5	$1,114.5	$0.0
Total Costs	($2,513.4)	($2,513.4)	($2,684.1)	($2,639.1)	($3,915.0)

$ in $1,000s

Numbers in parenthesis are negative numbers

OREGON STATE POLICE
STRATEGIC MASTER FACILITIES PLAN
FIRST PHASE

OREGON STATE POLICE
STRATEGIC MASTER FACILITIES PLAN
FIRST PHASE
JUNE 29, 2020

PROJECT PARTICIPANTS

OSP FACILITIES

- Kailean Kneeland, Administrative Services Director
- Sharon Domaschofsky, Business Services Manager
- Shannon Peterson, Facilities Coordinator

POLICE SERVICES BUREAU

- Stephanie Ingraham, Patrol Services Division
- Theodore Phillips, Patrol Services Division – SW Region
- Casey Thomas, Fish & Wildlife Division Captain
- Jon Harrington, Criminal Investigations Division Captain
- Lauren Jarrell, Evidence Program Manager
- Luann Allison, Southwest Region Office Manager
- Mary Resch, East Region Office Manager
- Sarah Furr, Interim Northwest Region Office Manager

FORENSIC SCIENCE & PATHOLOGY BUREAU

- Alex Gardner, Major
- Sean Hurst, Chief Medical Examiner
- Kelsey Evans, Administrative Supervisor
- Chrystal Bell, Director of Forensic Services
- Robert Jones, Lab Supervisor
- Elizabeth Flannery, Portland Forensic Lab Director
- Keith Kerr, Springfield Lab Director
- Melissa Simons, Central Point Lab Director
- Brian Medlock, Bend Lab Director
- Calvin Davis, Pendleton Lab Director
- Robert Hilsenteger, Forensic Services Manager
- Stephanie Winter-Sermeno, Forensic Services Manager
- Victoria Dickerson, Forensic Services Manager
- Robert Jones, Forensic Services Manager

HUMAN RESOURCES/SAFETY/INFORMATION TECHNOLOGY

- Kevin Silbernagel, Information Technology Manager
- Mark Hansen, Information Technology Manager
- Lili Wright, Safety/Human Resources Manager
- Blake Dye, Safety/Human Resources Manager
- Rachelle Knuth, Safety Coordinator
- Trista Robischon, Safety

FINANCIAL SERVICES

- Ben Milner, Deputy Chief Financial Officer

CONSULTANT TEAM

FFA ARCHITECTURE AND INTERIORS, INC.

- Troy Ainsworth, Principal
- Ian Gelbrich, Partner-In-Charge
- John Pete, Project Manager
- Lara Jackman, Project Architect
- Kathleen Strigle, Architectural Staff

MWL ARCHITECTS

- Jim McClaren, Senior Principal
- Russell McElroy, Senior Principal
- Bonnie Carver, Principal

KPFF CONSULTING ENGINEERS

- Stuart Finney, Structural Engineer Lead
- Mark Reuland, Civil Engineer Lead

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- Brad Rafish, Partner
- Jordan Henderson, Senior Consultant

RIDER LEVETT BUCKNALL

- Daniel Junge, Senior Cost Manager

TABLE OF CONTENTS

04 05

CONCEPTUAL PLANNING AND COST

COST SUMMARY

SPRINGFIELD AREA COMMAND

SPRINGFIELD FORENSIC LAB & MEDICAL EXAMINER

CENTRAL POINT

FACILITY WORK PACKAGING PLAN

INDUSTRY BENCHMARKS AND BEST PRACTICES

LEASE VS BUY CONSIDERATIONS

OPERATIONS AND MAINTENANCE FUNDING

FACILITY MANAGEMENT STAFFING

APPENDIX

CENTRAL POINT STRUCTURAL FACILITY EVALUATION

CENTRAL POINT FLOODPLAIN ASSESSMENT

CENTRAL POINT SITE SURVEY

01 EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Oregon State Police Vision Statement: "To provide premier public safety services."

The department of Oregon State Police (OSP) is charged with protecting the people, property, and natural resources of Oregon. Created in 1931, the department is now organized into four bureaus and two offices. OSP provides multi-disciplined services throughout its Area Command, Forensic Services Lab, and Medical Examiner facilities that are essential and wide-ranging. These include transportation safety, major crime investigations, drug investigation, fish and wildlife enforcement, medical examiner services, state emergency response coordination, and specialized forensic services including DNA identification.

With significant population growth in Oregon over recent years coupled with ever-evolving disaster preparedness needs, providing Oregon State Police services throughout the state is no small task. The information shared in this report represents a crucial step towards ensuring that Oregon State Police can provide effective public safety services into the future, for all Oregonians.

CURRENT CONDITIONS

Across the board, Oregon State Police staff have shown tremendous resourcefulness when it comes to performing their duties. However, several key facilities are missing the basic resources and infrastructure that is essential to fulfilling Oregon State Police's role in our communities, state-wide. Inadequacies in terms of space, security, amenities, and technology add unnecessary difficulty to already challenging roles.

A facility survey conducted in the last half of 2019 found that OSP employees highly value facility security, adequate space, and environmental health. However, among the survey respondents facility quality was viewed as inadequate, dated, and substandard. Employees reported that poor technology, environmental distractions, and lack of space consistently presented productivity challenges. All of these factors can lead to adverse impacts on employee health, sense of security, and morale.

A number of deficiencies can be observed first-hand in existing OSP facilities. For example, not all existing Area Command buildings are built to essential facility standards or are provided with emergency backup power. This means that during emergency situations, these facilities would not be adequately equipped to meet Oregon's public safety needs. Additionally, OSP Forensic Services Lab facilities were found to be lacking the appropriate layout of spaces to properly process evidence in keeping with a state-wide model, and will not be able to keep pace with future growth. Furthermore, due to constraints in Medical Examiner facilities, autopsies are deployed relatively rarely compared to population numbers and the capacity to perform this work is easily overloaded. These services are primarily located in Multnomah County with very limited access elsewhere in the state. Recent preparations in response to the COVID-19 pandemic have highlighted the lack of capacity available in state-wide peak demand situations.

The time to invest in this critical infrastructure is now, before another public health crisis, before additional population growth further outpaces OSP facility resources, and before Forensic Services Lab and Medical Examiner capabilities fall further behind.

STRATEGIC FACILITIES MASTERPLAN

In March 2020, OSP completed a Strategic Facilities Framework Plan and developed a new facilities vision statement: *"We aspire to own, operate and maintain appropriate facilities that adequately support our critical public safety mission and enable us to best protect the people, property and natural resources of Oregon."*

The next step in accomplishing OSP's vision is to work towards the following long-range goals that the Framework Plan identified for OSP facilities across the state. In doing so, service delivery can be improved in a way that matches future growth:

- Goal 1 - Control Our Destiny. Develop physical, structural, and financial capacity to ensure adequate facilities.
- Goal 2 - Protect and Preserve. Undertake appropriate measures to ensure employee safety and security, and effective evidence handling/storage.
- Goal 3 - Create Better Space. Ensure adequate/functional space to maximize agency productivity, employee satisfaction, and public perception.

FFA Architecture & Interiors was contracted to develop a strategic master facilities plan for OSP, with the first phase of this effort focused on Springfield and Central Point. The planning process included operational assessments of existing facilities, building prototype tours, staffing and operations workshops, conceptual planning, and facility work packaging. With each step, the team focused on maximizing long term value to achieve the most effective use of state funds.

When the proposed masterplan goals are accomplished, Oregon State Police divisions will be more effectively dispersed throughout the three regions, evolving staffing needs will be prioritized to meet the demands of a growing population, and investments in crucial facilities will allow for continued progression toward national standards and more efficient service distribution.

This strategic masterplan is well-positioned to align with the state facility and agency goals outlined in Oregon Executive Orders 17-01, 17-20, and 20-04. These goals include energy and water efficiency targets, reducing greenhouse gas emissions, accomplishing cost savings by reducing energy footprint, and creating workplace environments that support employee health and well-being.

FIRST PHASE IMPLEMENTATION

This report provides expanded findings for the Springfield Area Command and Lab and the Central Point Command Center and Lab. OSP is prioritizing these facilities due to their significant deficiencies and need to perform critical functions associated with Area Command, Forensic Services Laboratory, and Medical Examiner operations. Investment in these facilities first would have a major positive impact on providing a more equitable distribution of resources across the state.

The first phase outcomes established with this report indicate a number of benchmarks in terms of budget and facility size. For Central Point, the option of an entirely new development on the existing site was evaluated against an alternate scheme that would remodel the existing facilities and build in phases the additional square footage that is needed. This alternate scheme would result in the best value for OSP, and therefore was selected to move forward. The proposed project budget for Central Point is $32,655,066.

Springfield, as an enhanced center of OSP operations, would make use of a strategy that locates Area Command facilities on one site, with Forensic Services Lab and Medical Examiner facilities co-located on another site. This puts the proposed project budget for the two Springfield projects combined at $80,896,527. A further summary of key project data is in the table at right.

Project Data Summary

Springfield Area Command		
	Building Square Footage	17,176 sf
	Site Area	87,120 sf (2 acres)
	Total Proposed Project Budget (2023)	$ 14,603,754
	Initial O&M Budget	$ 205,250
Springfield Lab & Medical Examiner		
	Building Square Footage	68,641 sf
	Site Area	217,800 sf (5 acres)
	Total Proposed Project Budget (2023)	$ 66,292,773
	Initial O&M Budget	$ 1,335,950
Central Point		
	Building Square Footage	46,183 sf
	Site Area	151,441 sf (3.5 acres)
	Total Proposed Project Budget (2022)	$ 32,655,066
	Initial O&M Budget	$ 776,900

NEXT STEPS

This funding application is just one step in a lengthy process to make the proposed facilities a reality and provide these public safety services to Oregonians. The project schedule illustrates the timeline for funding approval in June or July 2021.

For these types of facilities, it is recommended the project manager, architectural & engineering team, and general contractor are hired through a qualification based selection to make sure the selected team has the right experience and knowledge to deliver these essential operations. OSP is currently evaluating which project delivery method(s) would be the best fit for these projects:

- Construction Manager / General Contractor (CM/GC) Delivery
- Developer-led Capital Investment
- Design-Build

The proposed project timelines on the schedules to the right reflect a Design-Build process, although all of the delivery methods listed would have roughly the same design and construction timeline. The difference in schedules would be determined by OSP's desired engagement in the design process and the time needed upfront to establish contracts. The project team recommends the selection of a delivery method that allows OSP, as the future facility owner, to be the final decision maker on design details that have a critical impact on the day to day operation and long term performance of the facility.

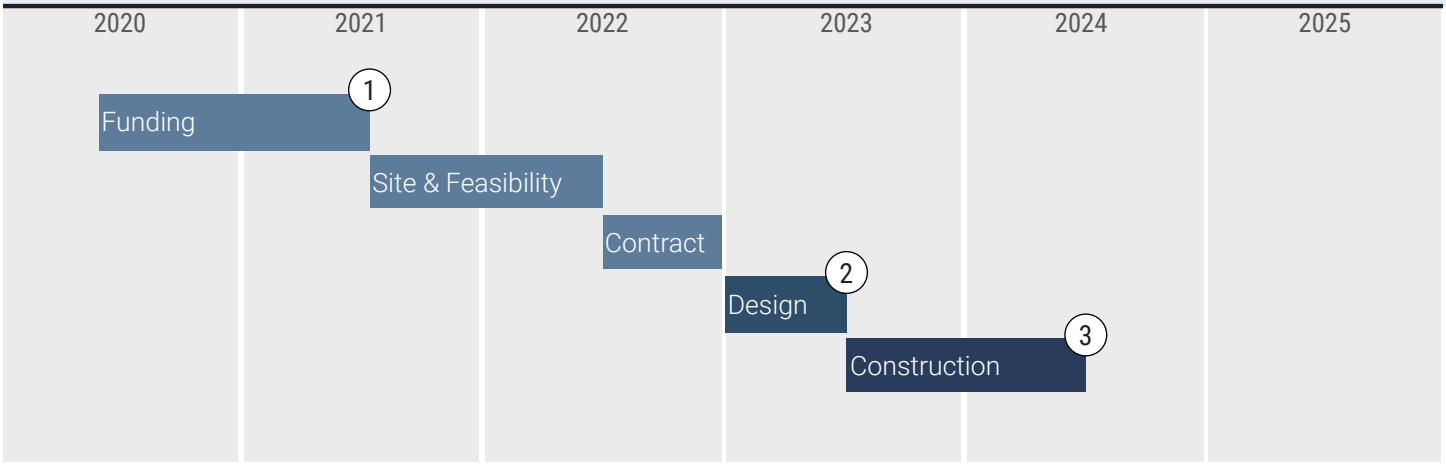
The investments in Springfield and Central Point are an important step towards providing public safety services as well as disaster preparedness here in Oregon. It is critical that funding is approved in June 2021 to meet the proposed budget goals, as well as meet the schedule and operational requirements that sustain OSP operations.

PROJECT MILESTONES

1. Funding Approved
   (June/July 2021)
2. Bid Springfield AC
   (July 2023)
3. Move into Springfield AC
   (June 2024)
4. Bid Springfield FL + ME
   (July 2023)
5. Move into Springfield FL + ME
   (June 2024)
6. Bid Central Point
   (July 2022)
7. Move into Central Point
   (July 2023)

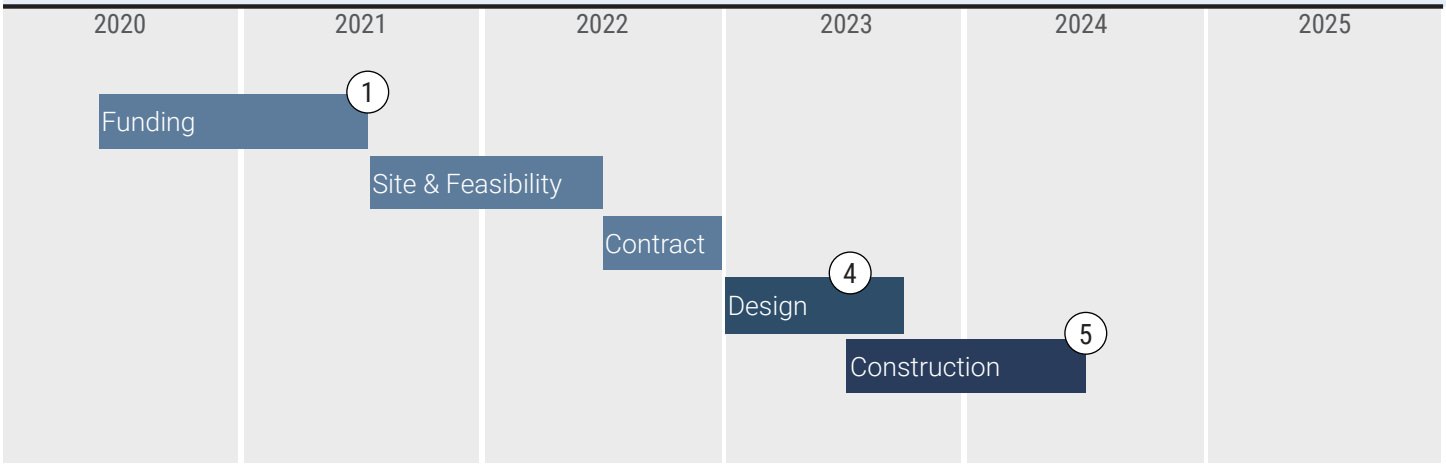
SPRINGFIELD AREA COMMAND

PROJECT SCHEDULE



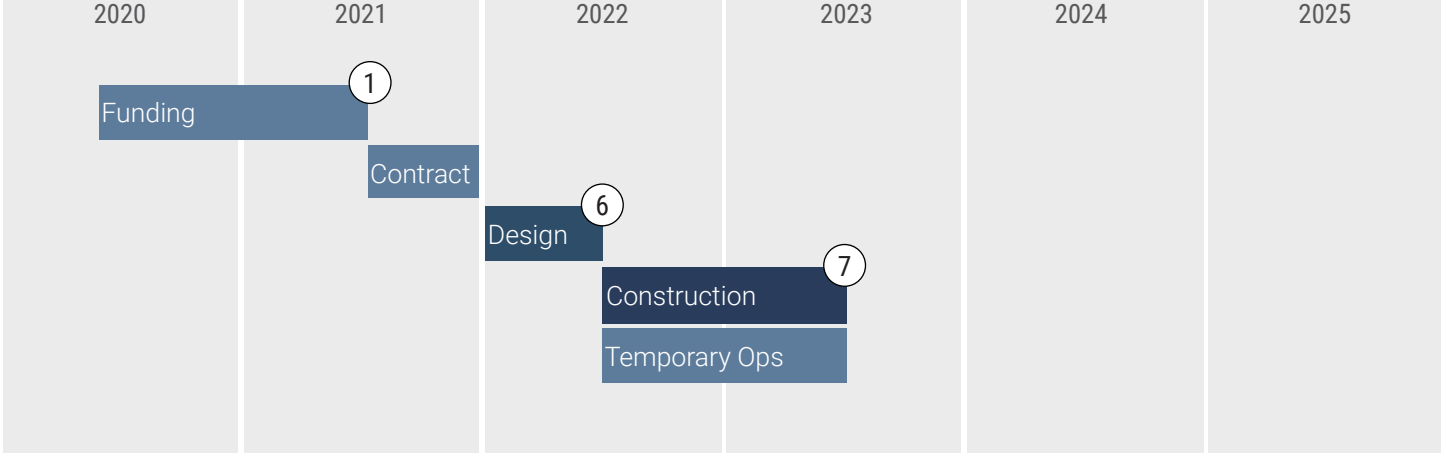
SPRINGFIELD FORENSIC LAB + MEDICAL EXAMINER

PROJECT SCHEDULE



CENTRAL POINT

PROJECT SCHEDULE



02 EXISTING FACILITIES ASSESSMENT

OVERVIEW

The Oregon State Police (OSP) operates out of 44 facilities across the state. The first phase of the strategic master facilities plan focused on the Springfield and Central Point facilities. These facilities were prioritized by OSP due to their significant deficiencies and need to perform critical functions associated with Area Command, Forensic Services Lab, and Medical Examiner operations. In addition, both areas have seen significant population growth beyond the capacity of the existing infrastructure.

The Springfield facility is currently leased, and the assessment consisted of an operational review by the project team. The Central Point facility is owned by OSP. There, the project team toured the facility performing an operational review, a visual assessment of the structure, and a flood plain analysis. A limited boundary and topographic survey was also created to provide a more precise evaluation of the site's relationship to the floodplain.

While observing OSP's existing facilities, the project team took into account operational and visual conditions. Four lenses were used to analyze the existing conditions: resiliency, security, operations, and overall building environment. These lenses help set the stage for how an Oregon State Police facility should function and operate.

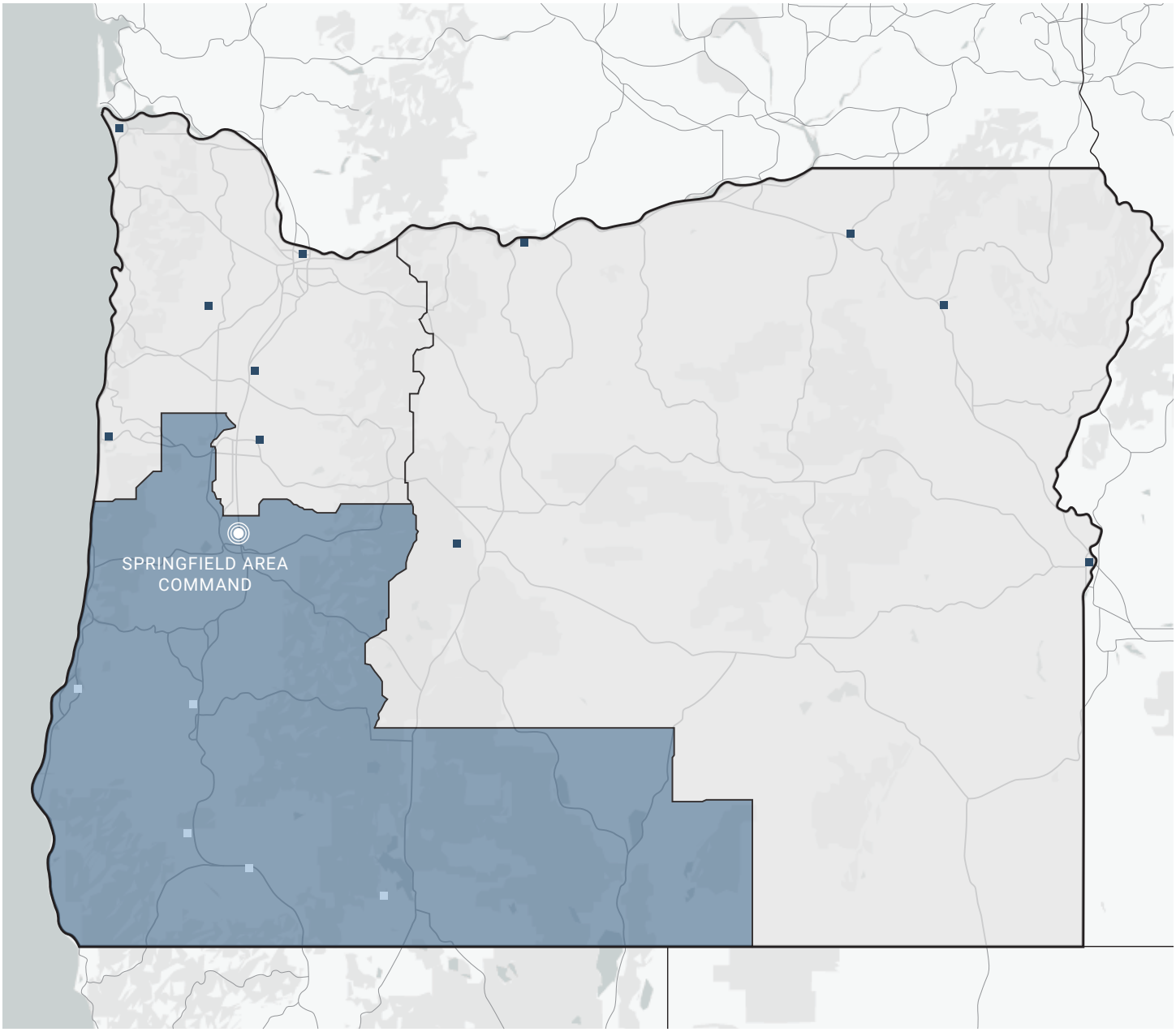
A high priority related to resiliency at this time is energy efficiency in the built environment. Oregon Executive Order number 17-20 further reinforces this as a priority for state agencies. The current deficiencies in the Springfield and Central Point facilities make both of these locations unable to meet any of the requirements contained within the Executive Order.


SPRINGFIELD
3620 Gateway St , Springfield, OR 97477

SUMMARY

The Springfield Area Command and Lab building was built in 1984, and Oregon State Police has been leasing the space for 35 years through an inter-agency agreement with ODOT. It has served as the Southwest Regional Headquarters for about 8 years. The property consists of a 10,200 SF primary building toward the eastern side of the site with public access from the south parking lot and secure access from the south, east, and north. The primary building includes Patrol, Detectives, Fish & Wildlife, and Forensic Services Lab functions. There is also a smaller service building located to the west of the primary building, which is accessed via the secure parking lot. The service building provides space for evidence storage, freezers and refrigerators, auto servicing, temporary vehicle evidence storage, and water tank firearms testing. The facility spaces have been adapted and modified according to operational needs over the years, but the infrastructure of the facility itself remains in its original conditions.

SPRINGFIELD PATROL AND LAB



FACILITY ASSESSMENT

BUILDING INFORMATION

YEAR BUILT
1984

TOTAL SQ. FT.
13,548

SEISMICALLY UPGRADED
No

RENT
$174,099 a Year

SECURE PARKING
Yes

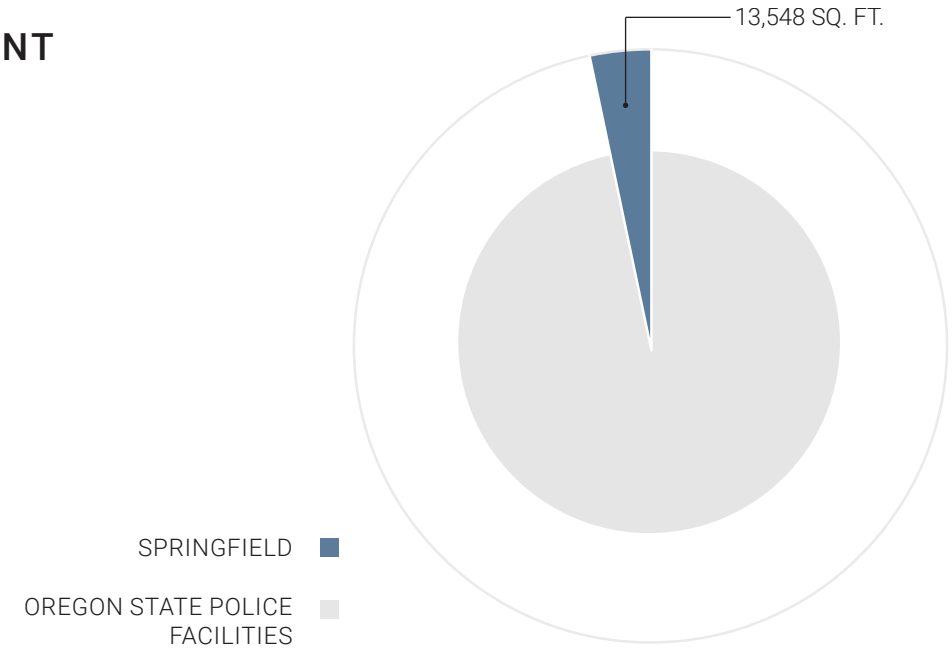
SPECIALTY DIVISIONS
Area Command
Crime Lab

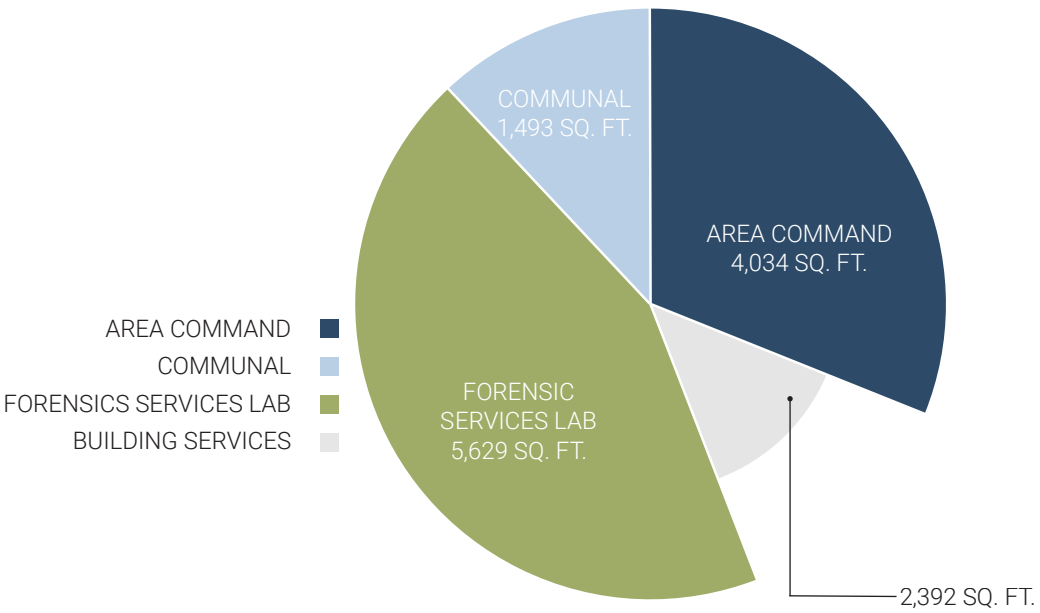
CRIME LAB / ME INFORMATION

REQUEST DISTRIBUTION (OCTOBER 2019)
Springfield Lab - 21%

REQUESTS BY DISCIPLINE (OCTOBER 2019)
Toxicology - 40%
Chemistry - 36%
Latent Prints - 11%
Biology - 11%
Firearms - 1.33%
Trace - 0.57%

ME CASES (2019)
Cases - 581
Autopsy - 132
External Exam - 111





RESILIENCY

The Springfield facility is not equipped with a backup generator at this time. There is a generator on site, but it is non-operational. This means that there is no backup power or emergency lighting provided on site. If the building were to experience a power outage due to a storm, system failure, or other event, OSP operations would be completely shut down at this location and critical evidence could be lost. Evidence storage freezers and refrigerators, Forensic Services Lab freezers and refrigerators, patrol operations, and the server room are all spaces that would benefit from being equipped with emergency backup power.

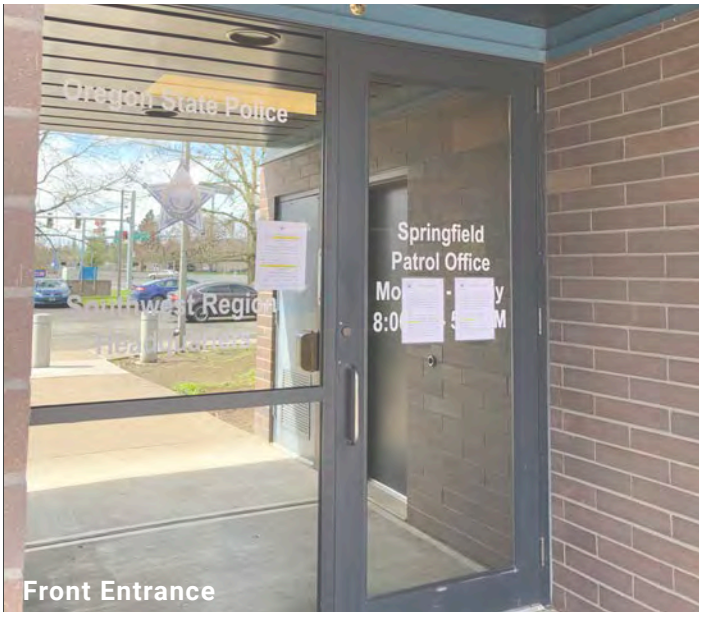
OSP is currently working with the lessor, ODOT, to determine the cost to add emergency power at this site to preserve critical evidence in the event of a power outage. However, the service building is not sprinklered, which is where evidence is stored for Forensics and Police Services-- therefore, evidence is still highly at risk in the event of a fire.

The primary building is fully sprinklered, but the service building is not. In the event of a fire, critical evidence would be lost and the building would likely sustain significant damage, disrupting OSP operations. The building has not had any seismic upgrades.

Generator

Evidence Refrigerator

SECURITY



Front Entrance


Looking into Lobby

Security was a repeated concern throughout the Springfield site. There are currently no security cameras on site and no visual security or exterior surveillance measures in place to protect building occupants. The service building also creates a blind spot, and there have been encampments set up on the back side of it in the past. At one point, someone living at that encampment started a fire against the shop building.

There is a makeshift audible alert system on the back wall of the Civilian Staff Office. It consists of a doorbell mounted near the Patrol Lieutenant's Office, that sounds a bell in the Patrol Break Room/ Report Writing area. There was no alert system observed at the Lab Front Office, although it does have a separate lobby with a secured entry.

Bollards were installed at the front entry near the public parking lot to protect against ramming vehicles. Earthen berms around the building perimeter in an effort to further protect the facility; however, this has contributed to moisture intrusion. The detective office areas are currently undergoing mold remediation due to such issues.

The only ballistic glazing observed was at the Civilian Staff Office window into the public lobby, including the transaction window. The other exterior windows are mirror tinted, but such a mirror tint only functions in daylight—when it is dark outside one can see into the building.

There is only one small lobby area for people to wait for walk-in reports, evidence release, sex offender registration, vehicle release, and public interviews. There are no public restrooms, and no public interview room or fingerprinting room off of the lobby. To access these functions, members of the public must cross the secure line, presenting a potential risk.

OPERATIONS

Area Command

At the Springfield facility, patrol operations are mostly consolidated to the east side of the building, with some additional functions located in the service building. There is not enough secure parking on site, resulting in a portion of the staff parking in the unsecured area. These parking constraints also mean that there is very limited space for long term evidence vehicle storage. Additionally, since there is no covered parking provided, it is difficult to keep patrol vehicles primed and ready to go in all weather conditions.

On the interior of the building, trooper report writing stations are limited and are in an open area shared with the break room, temporary evidence lockers, print/copy area, and the patrol entry door from the secure lot. There is a lot happening in this one small area, which makes for high noise levels. With these shared functions, evidence storage in this area does not have proper ventilation and there does not appear to be enough area for evidence processing or general storage.

Other needs observed were for a larger women's locker room to accommodate an increased number of troopers, as well as a wellness room. There are currently no interview room toilet or public toilet facilities on site. Communal areas such as the previous fitness room and formal briefing room have now been converted into work areas to meet growing space needs, and there is very limited area to accommodate any future staff. Additionally, when there is the need to have a meeting of 25 people or more staff have to meet off-site due to lack of space.

Forensic Services Lab

Evidence storage is located in a separate building from the lab causing an inefficient workflow. This means that technicians and lab front office staff frequently have to go back and forth between the main building and the service building with evidence, rain or shine. There is not enough parking for staff in the secure lot and the outside area is not well lit. There have also been issues with rodents in the mobile Forensic Services Lab vehicle stored in the secure lot. Evidence vehicle storage is limited, and the shop mechanic's bay area routinely has to be sacrificed for evidence vehicle processing.

In the lab, testing areas are divided into separate areas throughout but share one very narrow central hallway for circulation without bio vestibules, which is an evidence contamination risk. Lack of space also means there are not separate testing rooms for suspect and victim evidence. There is not a drying room for evidence, and more sheltered outdoor space is needed for splatter analysis and firearm angle training. Furthermore, offices are consolidated into shared spaces that would benefit from separation for acoustics and privacy. There is not enough space in the break area for all Forensic Services Lab staff to meet, so conference rooms are rented off-site at the nearby hotel.

In terms of equipment, there is a shortage of fume hoods throughout, and a need for more lab desks, bigger hoods, and additional sinks. The instrument room needs a separate zone to mitigate its inherent heat and noise.

Medical Examiner

Medical Examiner facilities do not currently exist on-site; instead, these functions are performed at the local hospital. However, regulations dictate that service can only be provided at the hospital exclusively for Lane county, leaving the surrounding region underserved. This also means that any samples from the Medical Examiner have to be transported when Forensic Services Lab testing is necessary, leading to inefficiencies in the process.

Report Writing

Evidence Tech

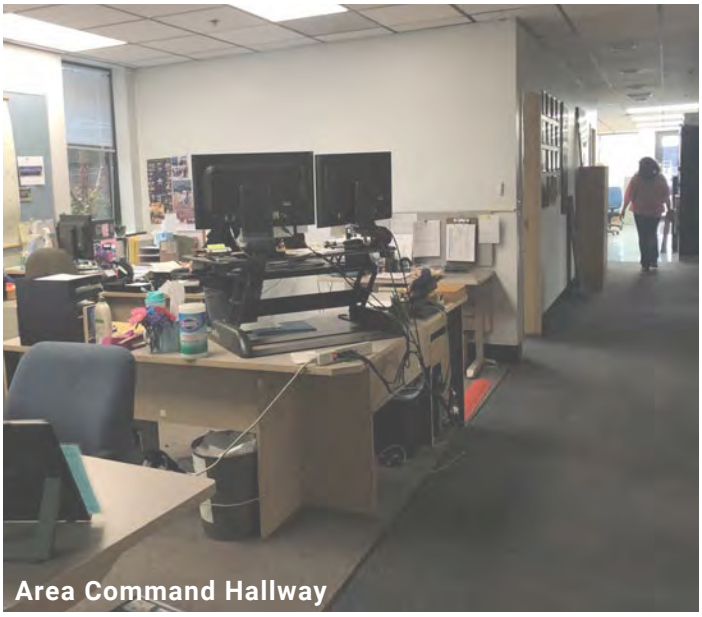
Evidence Storage - Service Building

Toxicology Lab

BUILDING ENVIRONMENT

The overall building environment has not been noticeably updated over the years. Both the HVAC system and the roof are at or nearing the end of their service life. Much of the furniture is still the original furniture, and has not been upgraded to meet current OSP standards. Carpet is installed in high traffic areas such as the main Area Command hallway and locker rooms, which is difficult to keep clean. The original acoustical ceiling tile and fluorescent lights remain. Several storage spaces and print/copy areas have been reclaimed for offices, leaving storage in less efficient locations and some offices without access to daylight.

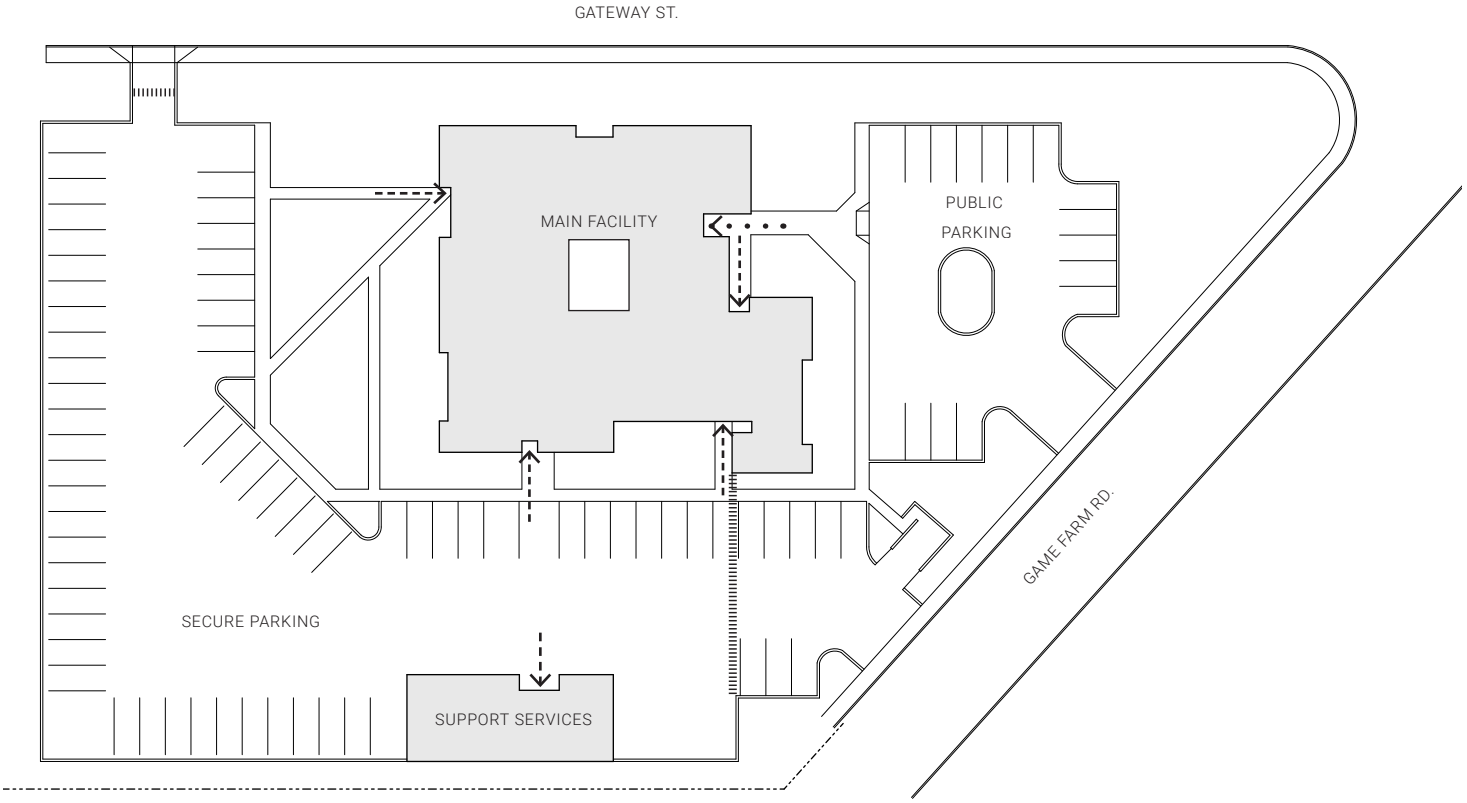
The building is designed around a central courtyard, but this space is not utilized and the pavers are not level due to tree root growth in the area. There is also a lack of access to daylight in areas that would benefit, such as the fish and wildlife office, area command break room, and report writing area. An evidence-based design approach to daylighting and workplace environments would increase employee health and wellness, in alignment with state agency wellness plan goals.



Area Command Hallway

Forensic Services Lab Hallway

SPRINGFIELD SITE PLAN



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SITE PLAN

1” = 80’-0”

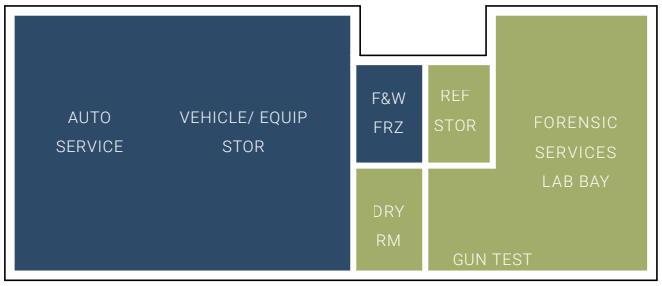
LEGEND

- ENTIRE BUILDING OUTLINE
- PROPERTY LINE
- PUBLIC
- OFFICER
- SECURITY LINE

N

MAIN FACILITY FLOOR PLAN

1/32" = 1'-0"



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SUPPORT SERVICES FLOOR PLAN

1/32” = 1’-0”

LEGEND

ENTIRE BUILDING OUTLINE

BUILDING ENTRANCE / EXIT

CENTRAL POINT

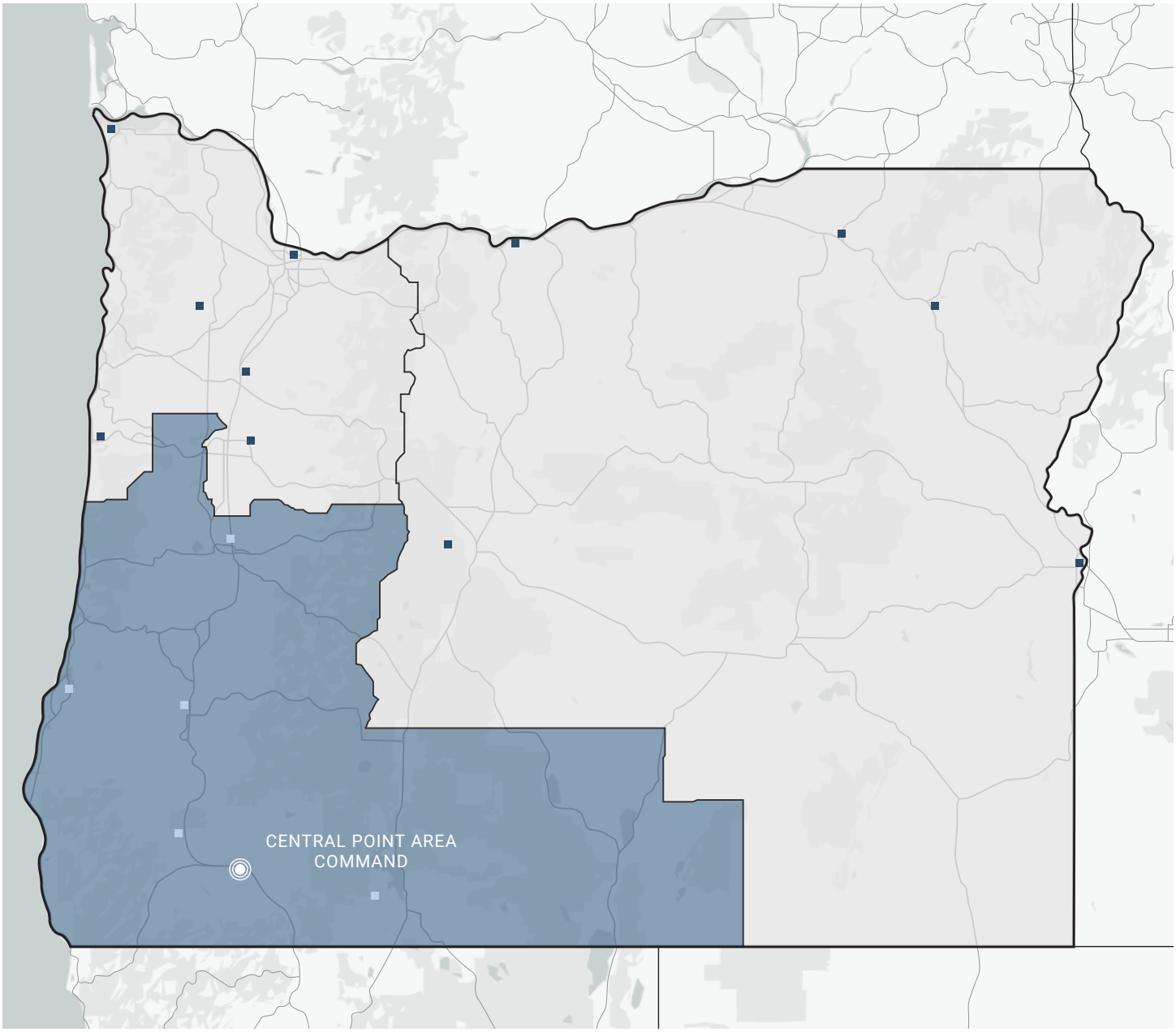
4500 ROGUE VALLEY HIGHWAY, CENTRAL POINT, OR 97502

SUMMARY

Built 23 years ago in 1997, the building has served as the Central Point Command Center and Lab for the Oregon State Police (OSP). Previously leased from the Department of Administrative Services (DAS), in 2017 the property ownership was transferred to OSP. The facility consists of a primary structure centered on the property with public access from the west parking lot and secure access from the south and east. The building, which used to be the Southwest Regional Headquarters, includes Patrol, Detectives, Fish & Wildlife, and Forensic Services Lab. OSP leases a portion of this building out for ODOT services. In the secure parking lot, the facility also includes a service building. The service building provides space for evidence storage, medical exams, auto servicing, vehicle storage, and freezers. The site is large enough for a potential expansion of the main building to the east. Operations have internally shifted around over the years, but the infrastructure of the facility itself remains in its original conditions and has not been improved in 23 years.

CENTRAL POINT

AREA COMMAND / LAB / ME / DISPATCH



FACILITY ASSESSMENT

BUILDING INFORMATION

YEAR BUILT
1997

TOTAL SQ. FT.
23,470

SEISMICALLY UPGRADED
No

RENT
OSP Owned

SECURE PARKING
Yes

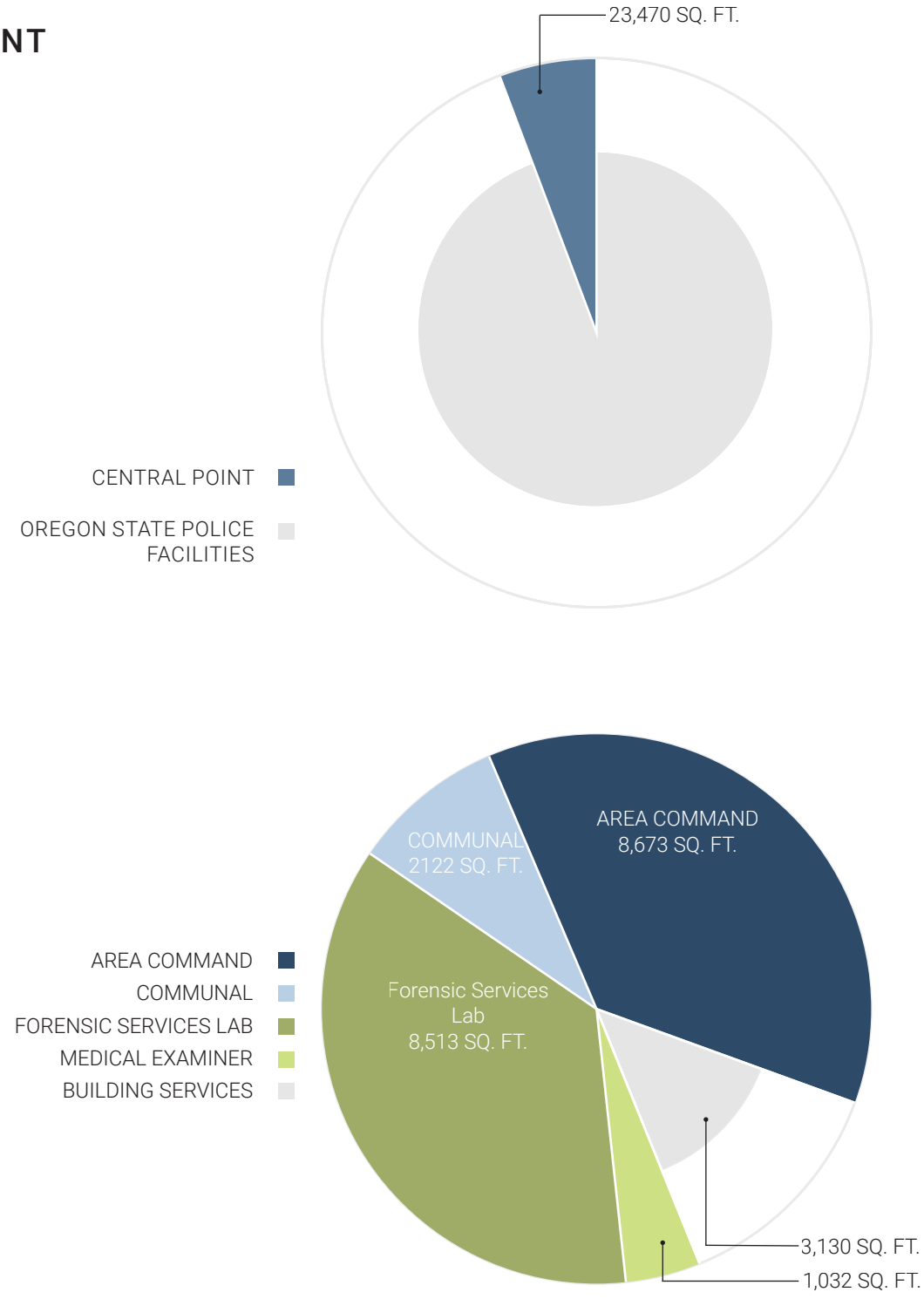
SPECIALTY DIVISIONS
Area Command
Forensic Services Lab
Medical Examiner
Dispatch

Forensic Services Lab / ME INFORMATION

REQUEST DISTRIBUTION (OCTOBER 2019)
Springfield Lab - 11%

REQUESTS BY DISCIPLINE (OCTOBER 2019)
Chemistry - 82%
Biology - 10%
Latent Prints - 7%
Firearms - 0.75%
Field Investigations - 0.37%

ME CASES (2019)
Cases - 607
Autopsy - 115
External Exam - 44



RESILIENCY

The facility includes a backup generator on site, although emergency power is only supplied to dispatch and emergency lighting. Medical Examiner, Lab, and Fish & Wildlife freezers are not on emergency power and neither are the Patrol Operations. The electrical system serving dispatch incorporates an uninterrupted power supply (UPS), but only serves dispatch. If the building experiences a power outage, OSP operations are completely shut down at the facility. The building does not have a fire sprinkler system. In the event of a fire, critical evidence could be lost and the building would likely sustain significant damage.

Through observation of the facility and analysis of the original structural plans, KPFF deduced that the building was originally built to meet the 1994 Uniform Building Code as an Occupancy Category I "Essential Facility" in seismic zone 3. However, the detailing for modern buildings to reach "Essential Facility" has increased in complexity since 1994. Based on this information, KPFF anticipates the building would react much as a modern office building would in the event of an earthquake, meaning occupants of the building would be able to safely exit the building but would not be allowed to reenter. Today's standards for essential facilities preserve full operations after the seismic event.

The site is west of Griffin Creek, a regulatory floodway as defined by FEMA. The eastern portion of the site, including an existing structure, is located within the base flood zone which is considered a Special Flood Hazard Area. A precise evaluation of the site's relationship to the floodplain was created in the form of a topographic site survey. Any future development within the flood zone has limitations and requirements for "Critical Facilities." A summary of these requirements and site diagrams is provided in KPFF's April 14, 2020 memorandum.

Emergency Generator

Emergency Generator (Exterior)

SECURITY

Reception

Main Entrance

Little has been upgraded or added to the facility in terms of security. Bollards were installed at the front of the parking lot to protect against ramming vehicles, though little else. Currently there are only two security cameras on site, both of which are original to the building. One at the front door and one at the back entry. There are no cameras surveying the perimeter, parking area, or security gate. In the event the facility is attacked or there is an active shooter on site, OSP has no ability to survey the exterior and determine the threat.

Glazing is tinted on the exterior, but the exterior wall assembly and windows don't meet level 3 ballistic requirements. The only ballistic glazing observed was at the front lobby transaction window. Access to the multipurpose room as well as the medical examiner office is directly through the public lobby. The lobby is unsecured, and this presents a potential risk to officers as well as undesired interactions with sex offenders coming to the facility to register. A second means of vehicle egress from the secure lot is provided with brick pavers in the grass on the north side of the property. However, this is not an ideal secondary response pathway if the roadway is blocked or in the event of a power outage, when the perimeter security gate becomes disabled.

OPERATIONS

Area Command

Patrol operations are spread throughout the facility. This distance between functions limits an officer's response time and reduces connected, collaborative interactions among staff. The secure parking area provides no covered parking for patrol vehicles, which is essential to keeping the vehicles primed and ready to go in all weather conditions. Furthermore, there is a lack of dedicated evidence vehicle storage.

On the interior of the building, there are limited report writing stations with evidence bag and tag sharing the same space,. This means that the evidence intake area does not have the proper ventilation it requires, and creates a distracting environment for report writing. The evidence lockers are outdated, and evidence storage also does not have proper ventilation, forcing evidence technicians to work in the administrative area instead.

Communal areas such as the former fitness room and briefing room have now been transformed into work areas to meet the growing space needs for increased numbers of OSP staff. The detectives, Fish and Wildlife, and Patrol have limited existing areas in which to accommodate any future staff. There are no temporary holding facilities, interview room toilets, or public restrooms.

Forensic Services Lab

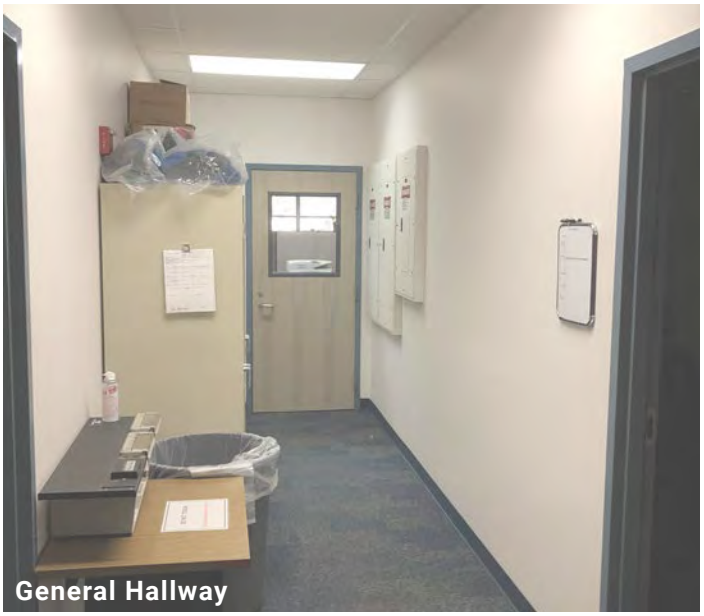
The Forensic Services Lab is facing many operational issues due to lack of space, outdated HVAC equipment and ventilation, and overlapping functions co-located in the same space rather than in separate designated areas. Due to this lack of space, the Lab Technician work areas are spread throughout the lab, either in testing areas or up front by reception, which is not effective. In addition, files and case storage are located in cluttered hallways and there is limited temporary evidence storage. All of the HVAC equipment is original to the building and the lab is encountering on-going issues with fume hood ventilation.

Lack of space and an inherently inefficient building layout means several of the laboratory testing functions are overlapping. Biological lab spaces are not separated from facility walkways by vestibules, and are located near the frequently-used exterior access door which presents an evidence contamination risk. There are not separate testing rooms for suspect and victim evidence. Lab and analysis workspaces are in the same work environment for biological and chemical tests, which should be separated.

The receiving lobby for the Forensic Services Lab is located at the back of the building. This means that any visiting evidence technicians or detectives need access to the whole Central Point facility to drop off or access evidence, presenting a security concern and disruption of functions.

Medical Examiner

The medical examination facility is in the service building. The facility lacks the proper lighting, materials, and ventilation to effectively perform autopsies. The body receiving area is in the parking lot and does not meet privacy or National Association of Medical Examiners requirements. The lack of cooler storage limits the number of autopsies that can be performed and there is no mass disaster infrastructure or ability to expand cooler storage in an emergency. The office, library, and preparation area in the service building are small and deficient. The Medical Examiner office has been moved across the site to an office in the public lobby due to space constraints. The office lacks privacy, has security risks due to its direct access off the public lobby, and is a long way from the operations area.



General Hallway

Patrol Parking

Forensic Services Lab

Officer Evidence Processing

BUILDING ENVIRONMENT

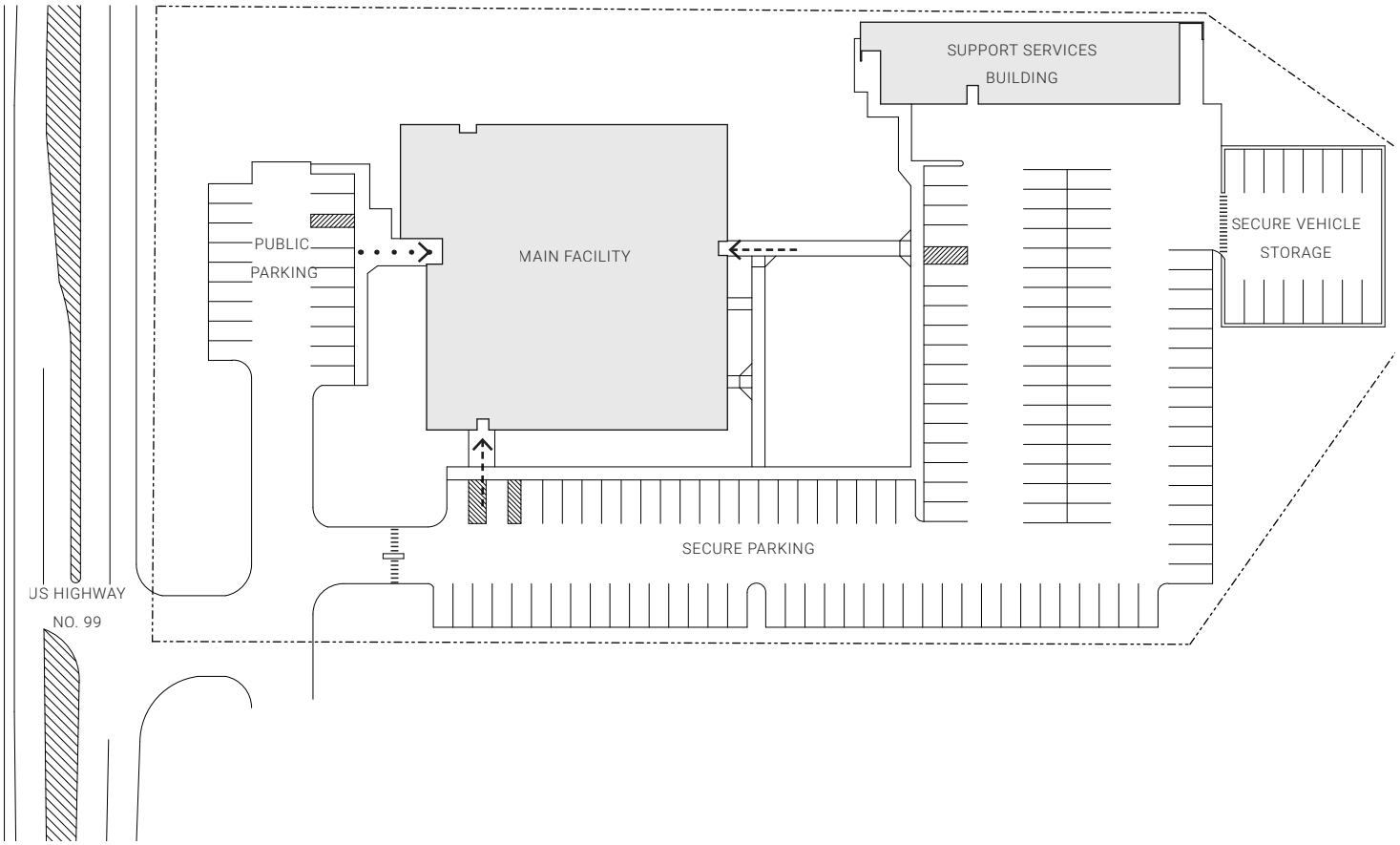
The overall building environment is outdated and has not been updated since initial construction. The majority of HVAC rooftop units have exceeded their estimated useful life and are in poor condition. Furthermore, they operate on a refrigerant with is no longer available. Therefore, full replacement of the HVAC units is recommended.

The furniture is the same furniture from when OSP moved in 23 years ago and does not meet current OSP standards. There is carpet in high traffic areas, which is hard to keep clean, and the original acoustical tile ceiling and fluorescent lights remain. Several storage rooms have been reclaimed for office and meeting spaces, meaning storage and janitorial supplies are in the hallways. There is also a lack of access to natural daylight in the report writing room, sergeants office, and fish & wildlife office. An evidence-based design approach to daylighting and workplace environments would increase employee health and wellness, in alignment with state agency wellness plan goals.

Hallway

Work Stations

CENTRAL POINT SITE PLAN



N

SITE PLAN
1" = 80'-0"

LEGEND

ENTIRE BUILDING OUTLINE

PROPERTY LINE

PUBLIC

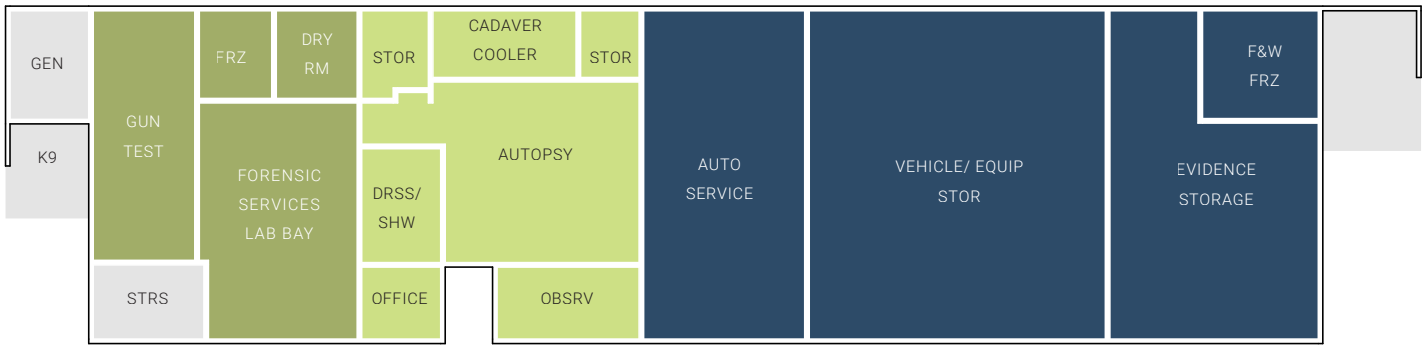
OFFICER

SECURITY LINE

N

MAIN FACILITY FLOOR PLAN

1/32" = 1'-0"



N

SUPPORT SERVICES FLOOR PLAN

1/32” = 1’-0”

LEGEND

ENTIRE BUILDING OUTLINE

BUILDING ENTRANCE / EXIT

03 DESIGN CRITERIA FOR NEW FACILITIES

OVERVIEW

In order to accomplish its vision "to provide premier public safety services", it is imperative that Oregon State Police develops design criteria for new facilities in alignment with the Department's desired long-range outcomes. These outcomes include facilities that are modern, equitably-designed, adequately-sized, safe, and resilient.

To assist in achieving these outcomes, the design team went through a three-step process of focused analysis and research. The first step involved a series of tours of prototypical facilities within the Oregon State Police facility portfolio. The team toured OSP's Central Point Office, Springfield Office, Portland Patrol Office, Portland Forensic Laboratory & Medical Examiner Office, Warrenton Patrol Office, Pendleton Patrol Office, and the Pendleton Forensic Laboratory. These building prototype tours served to help the team understand facility needs that are common to various locations, as well as any recurring challenges for existing facilities. It also added to the team's understanding of OSP operations, efficiencies in building layouts, and working relationships between different divisions.

Next, a variety of state-wide attributes and statistics were analyzed for their service impacts on Oregon State Police facilities. This helped the consultant team to look at the OSP functions as a holistic, interconnected system, while drawing out the specific characteristics of the three regions served and the unique challenges of the Central Point and Springfield areas.

Then, prototype models were developed using first-hand information gleaned from OSP staff workshops specific to Area Command, Forensic Services Lab, and Medical Examiner facilities. These prototype models present area summaries of square footages as a function of anticipated staffing numbers, and are a result of a thorough analysis of program needs specific to Oregon State Police facilities.

As a result of this process, Oregon State Police now has a road map to assist in its long-range goal of purpose-built, standardized facilities to effectively serve functional and operational needs. With these prototype recommendations in place, OSP can now take the next steps toward a well-planned portfolio that balances ownership opportunities with fiscal and political realities.

Step 1 - Prototype Tours

SUMMARY

Tours of existing, prototypical Oregon State Police buildings were a key part of understanding overlaps and separations of functions as well as differing needs between Area Command, Forensic Services Lab, and Medical Examiner facilities. The team heard first-hand from a variety of staff what is working well for them at these prototype facilities, so that these successes can inform future projects.

The Astoria Area Command at Warrenton was toured as an example of a building constructed recently (5 years ago) that efficiently provides much needed facility resources for area Patrol, Fish and Wildlife, and Criminal Investigation Divisions. It consists of a two building scheme, similar to that of Springfield and Central Point, where there is a main facility and a support services building. However, the Warrenton facility locates the two buildings in close proximity to each other and connects them via a covered breezeway for increased efficiency and usability.

The Pendleton Forensic Services Lab operates as a regional lab and serves the northeast portion of the state. It provides local agency support for crime scene investigation, biological processing, latent prints, and chemistry. It is organized well with clean zones and bio vestibules to avoid any potential contamination of evidence.

The Portland Forensic Services Lab is currently tasked with processing 45% of the state's caseload. The facility is equipped with the broadest array of forensic science services in the state, including chemistry, DNA, firearms/ tool mark analysis, the implied consent program, and trace evidence analysis. Some of these services provided by the Portland facility are not currently available at Forensic Services Labs elsewhere in the state.

The Portland Medical Examiner serves as the primary autopsy resource for the state. It has multiple autopsy stations, CT scanner, and both cooler and freezer storage. The facility also provides work space for county death investigators and an observation area for high suspicion cases.

At each of these prototype tours, the team looked for lessons learned across a broad spectrum of needs. Successful attributes of existing facilities would then be incorporated into design criteria for new facilities, and influence conceptual planning for Springfield and Central Point.

ASTORIA AREA COMMAND AT WARRENTON

2320 SE DOLPHIN AVENUE, WARRENTON, OR

The Astoria Area Command at Warrenton is one of the newest OSP buildings. The facility consists of a 5400 sf main building and a 4000 sf services building, joined by a covered breezeway. The plan is organized around trooper cubicles and a supply hub at the center, with offices, evidence, lockers, lobby, and other functions ringing the perimeter. There is a large conference room that comfortably holds 20-30 people, which can be accessed off of the lobby. Also, there is a secure interview room with an intervening hallway between it and the lobby. Natural light is provided to closed-door offices throughout by windows that are above eye level for security purposes. The shop building has three large pull-through bays. When needed, the shop also lends itself to Fish and Wildlife processing, large vehicle evidence, or defensive tactics training.


Lobby


Shop

BUILDING INFORMATION

YEAR BUILT
2015

RENT
$185,424 a Year

TOTAL SQ. FT.
9,400

SPECIALTY DIVISIONS
Area Command

PENDLETON LAB

612 AIRPORT ROAD, PENDLETON, LAB

The Pendleton Forensic Services Lab was recently built in 2018. It is in a separate building, but adjacent to the Pendleton Area Command. The front door is controlled with an intercom and remote release for security. All of the casework in the facility is lab grade, so that all surfaces can be easily decontaminated. The lab area is separated from the office and public functions by a bio vestibule, to help prevent contamination of evidence in the testing area. The facility provides ample positive pressure hoods and good ventilation. In latent prints there are separate rooms for powder testing and alternate light source testing. The vehicle exam bay is large with space for photography and tools on rolling carts. There are multiple screening rooms, allowing victim and suspect evidence to be analyzed separately.

Bio Vestibule

Drug Chemistry

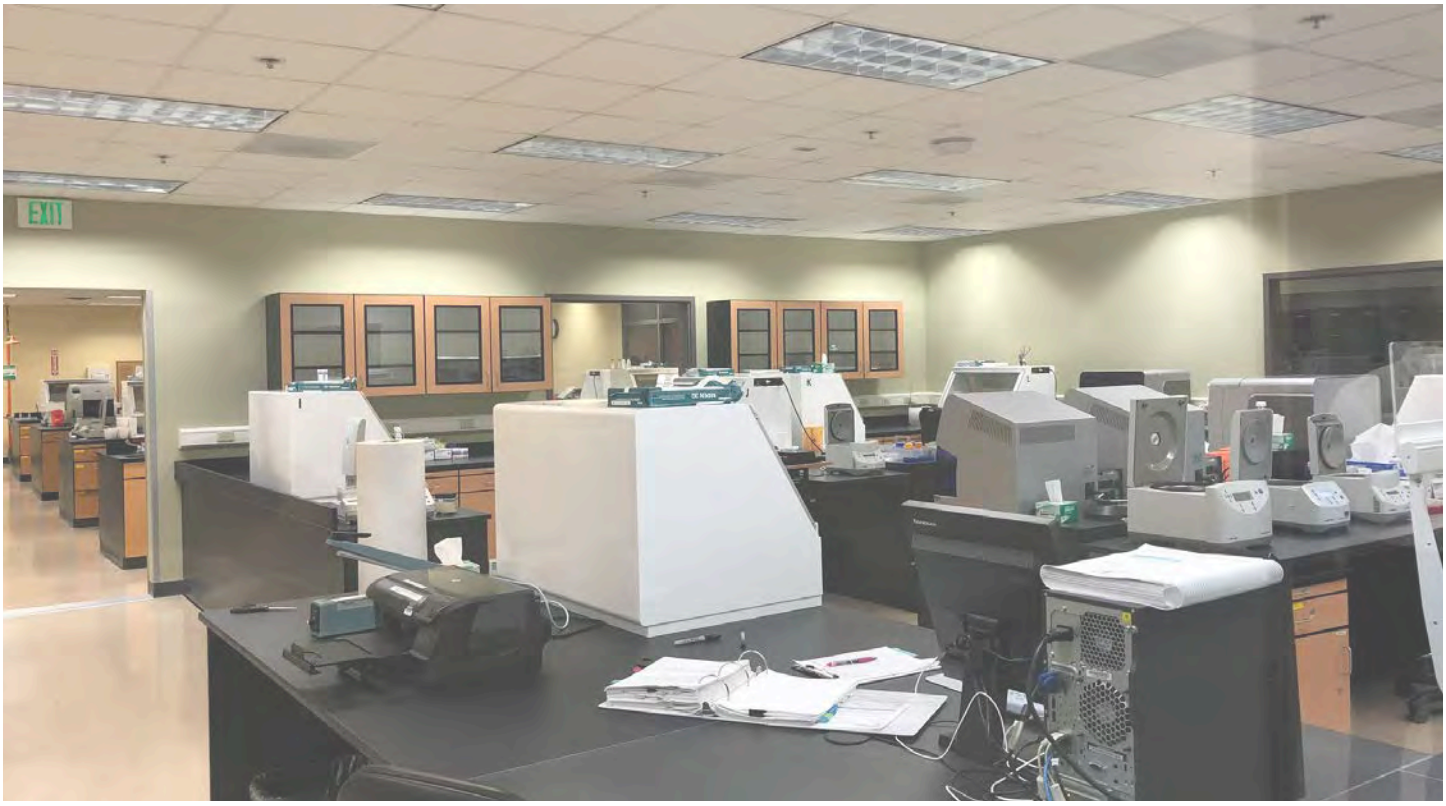
BUILDING INFORMATION

YEAR BUILT
2018-2019

TOTAL SQ. FT.
11,377

RENT
$434,100 a Year

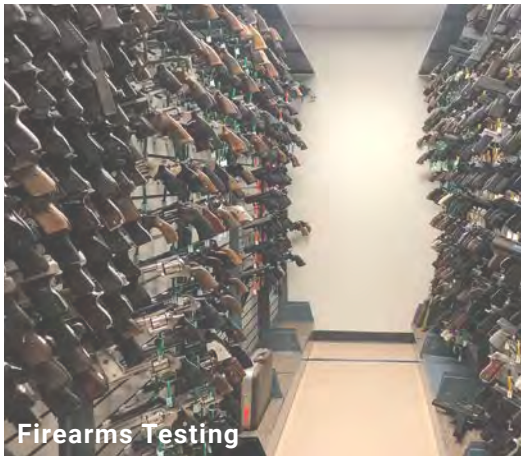
SPECIALTY DIVISIONS
Area Command
Forensic Services Lab



PORTLAND FORENSIC SERVICES LAB

13309 SE 84TH STREET, CLACKAMAS, OR

The Oregon State Police Forensic Services Lab in Portland offers the most comprehensive forensic science functions among the Oregon State Police facilities portfolio. It covers the same services as the regional locations located in Central Point and elsewhere, such as Field Investigation, Latent Print Processing, Drug Chemistry, and Biology. Beyond those it adds several specialized disciplines including DNA, firearms, trace evidence analysis, and intoxilyzer service. Labs are located strategically throughout the state in order to optimize access by law enforcement, but the Portland Lab is heavily relied upon, with a case distribution load of 45%. This increased scope of service is reflected in the increased size and the addition of specialized infrastructure in the Portland Lab.


Firearms Testing

Vehicle Bay

BUILDING INFORMATION

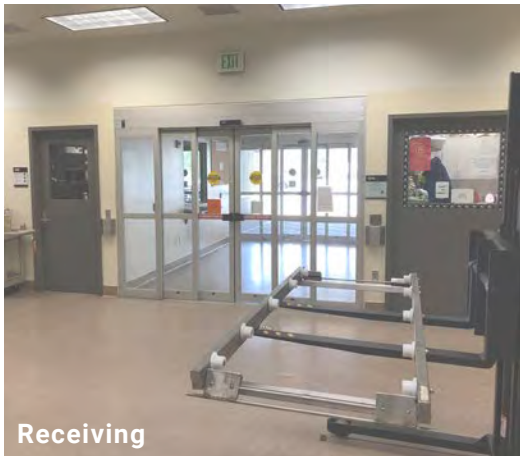
YEAR BUILT 2004	RENT $1,847,724 a Year
TOTAL SQ. FT. 51,873: Forensic Lab 14,600: Medical Exam.	SPECIALTY DIVISIONS Forensic Services Lab Medical Examiner

PORTLAND MEDICAL EXAMINER

13309 SE 84TH STREET, CLACKAMAS, OR

The Oregon State Police Medical Examiner facility located in Portland shares a building with the Portland Forensic Services Lab. Medical Examiner functions are centralized on the ground floor in the northwest portion of the building. There is a separate lobby and receiving area from those of the Forensic Services Lab, and they are accessed from the secure parking lot. Offices are located to one side of the space, with receiving, storage, and autopsy to the other, and locker rooms and equipment storage is located between. Some of the offices have direct access to daylight, but most are located toward the interior of the building.

The Portland Medical Examiner facility currently has a state-wide case distribution of 76%, compared to 12% in Springfield and 12% in Central Point. The Portland facility is already reaching capacity every 4-6 weeks, and does not have room for expansion to keep pace with future population growth.



Receiving

Admin Office

Step 2 - State Analysis

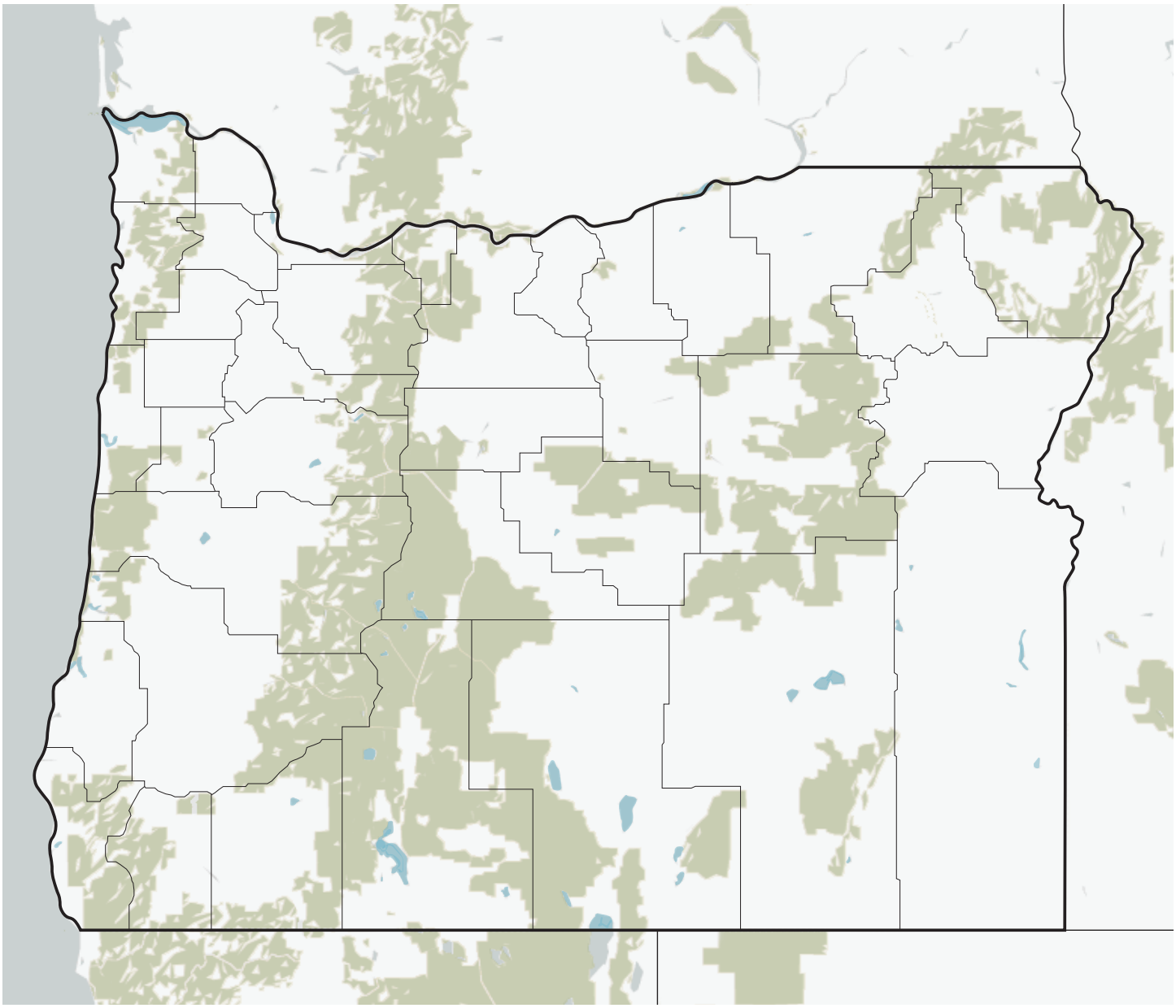
SUMMARY

The design team mapped and analyzed a variety of state-specific attributes, features, and statistics to study how they impact service demands on Oregon State Police facilities. This included major geographic features, highways, and population data as well as case load distribution, calls for service, and staff numbers per office. While OSP functions as an interconnected state-wide system, each of its three regions holds unique challenges.

In the maps that follow, there is a concentration of OSP facilities along the major interstates of I-5 and I-84. Similarly, demand for service stays relatively consistent along the I-5 corridor. This holds true for Patrol as well as for the Forensic Services Labs and Medical Examiner offices. However, not all of the OSP facilities along the I-5 corridor are currently set up to handle the demands of their region. In order to compensate, currently an outsize portion of case loads from the Southwest region are directed to Portland.

Multnomah County has seen a large amount of population growth in the recent past, but this trend is slowing. At the same time, both Central and Southwest Oregon are increasing in population more rapidly and need OSP facilities that can keep pace with increased demand. Looking at all of this data together, it becomes clear that Springfield and Central Point have the opportunity to be strategic infrastructure investments to achieve a more successful balance of service throughout the state.

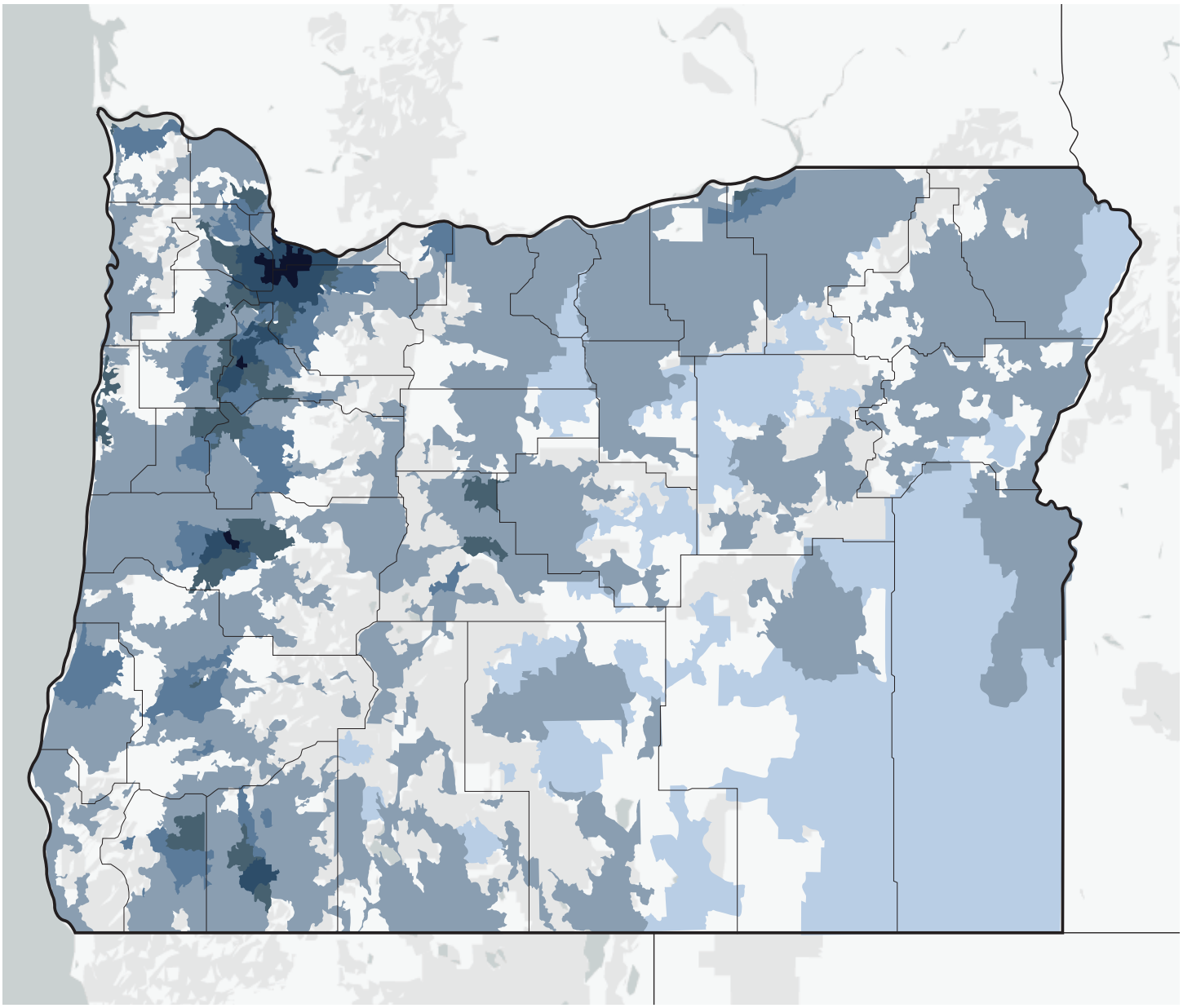
GEOGRAPHY



KEY

- Parks and Forests
- Water

POPULATION



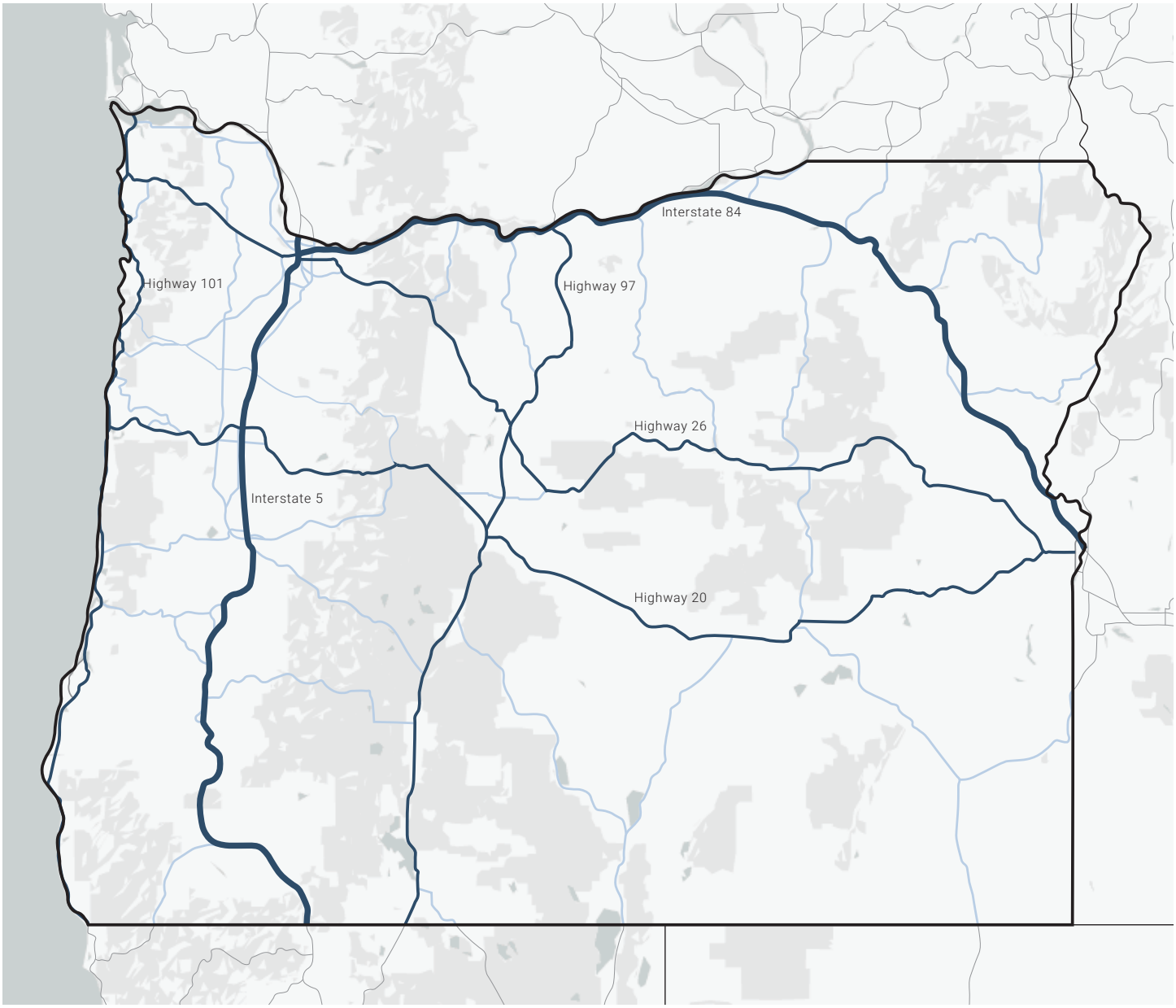
KEY

Person per Square Mile

- < 1
- 1 - 101
- 101 - 210
- 210 - 601
- 601 - 3299
- > 3299

Population Data gathered from OHSU study in 2018

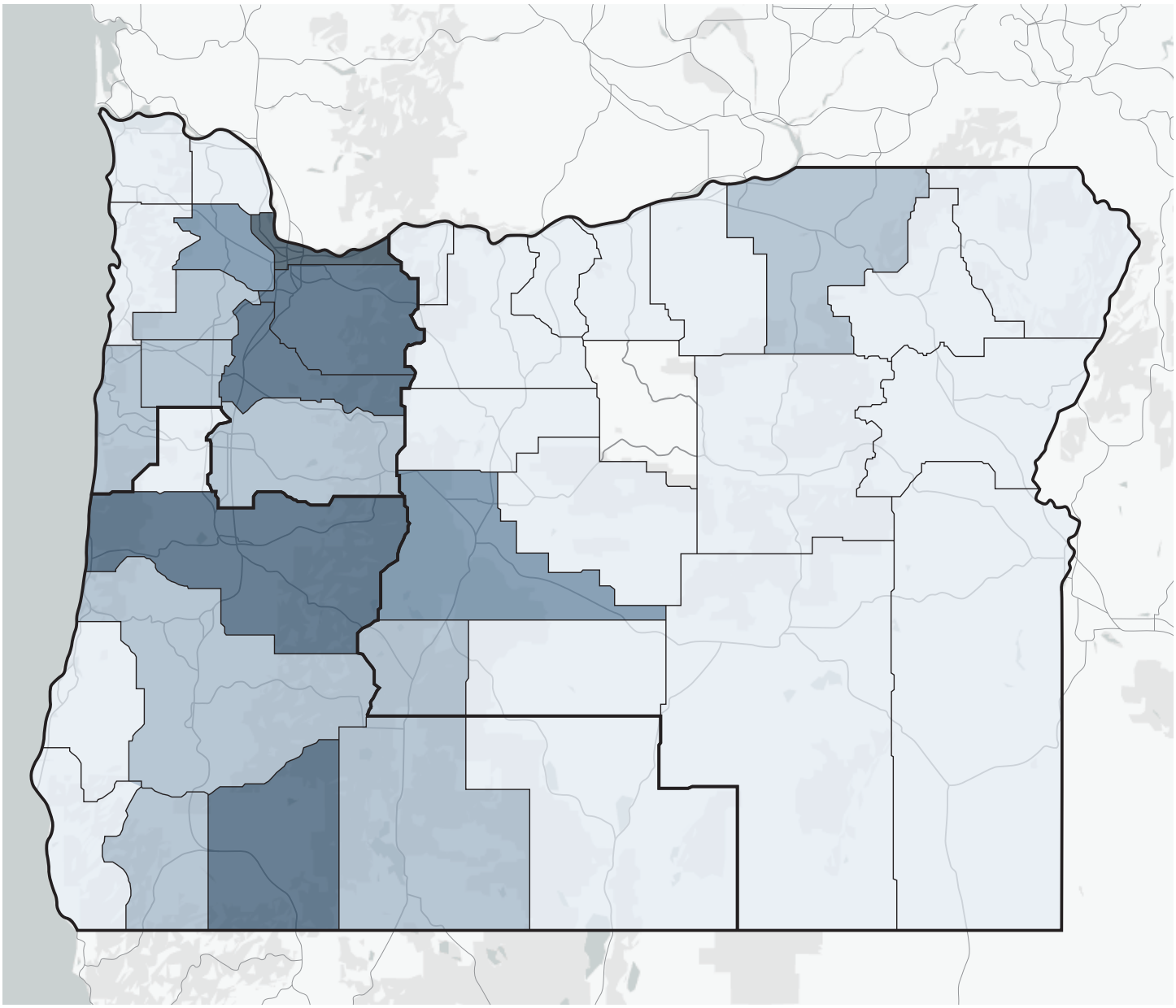
MAJOR HIGHWAYS



KEY

- State Border
- Major Interstate
- Major Highway
- Minor Highway

FATAL CRASHES

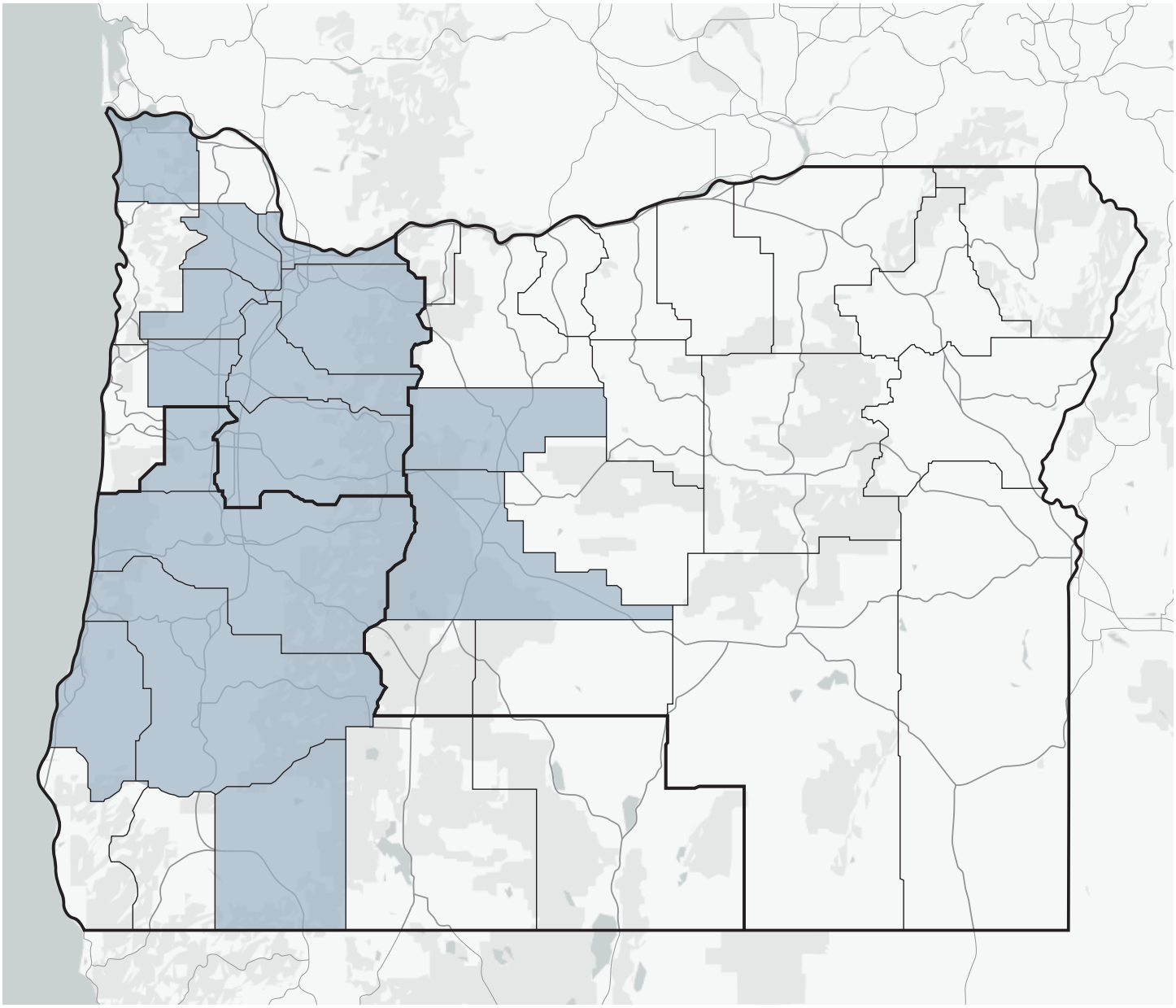


KEY

- 0
- 1-10
- 11-20
- 21-30
- 31-40
- 51-60

Carsh Data from 2016

24 HOUR PATROL

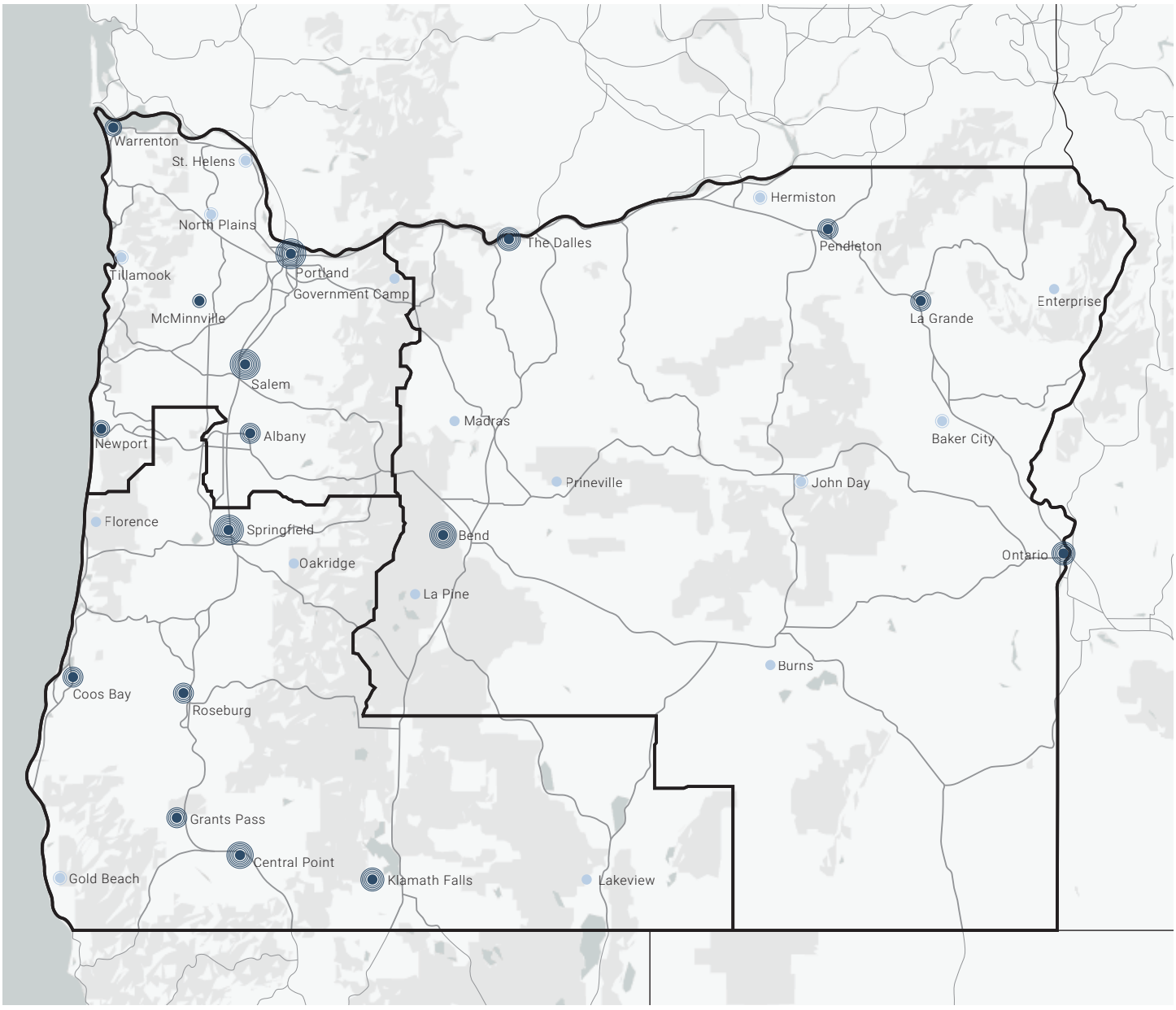


KEY

24 Hour Patrol

24 Hour Patrol Data from 2020

OSP FACILITIES



KEY

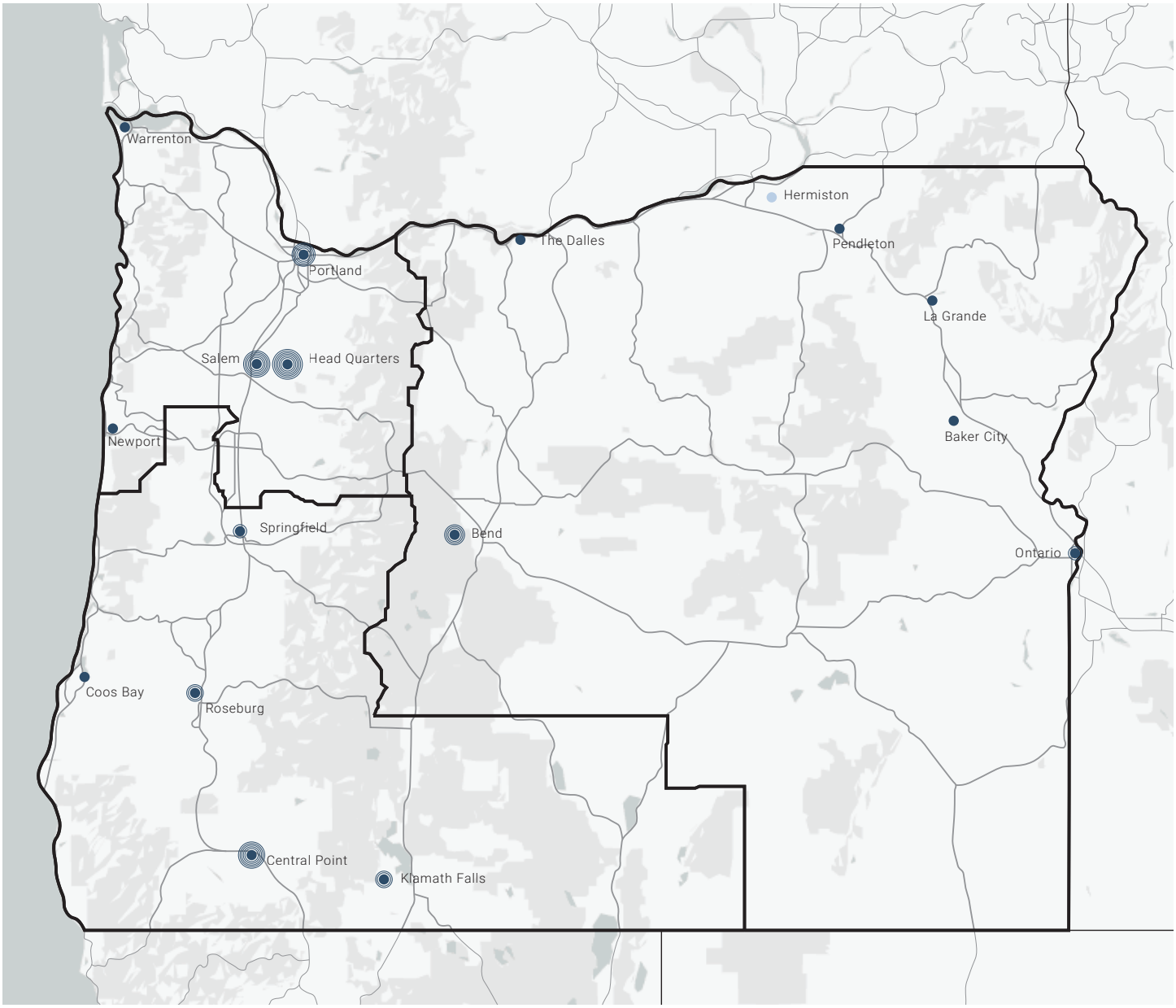
- Area Command
- Worksite

Authorized Strength per Officer

- 0 -5
- 6 - 10
- 11 - 15
- 16 - 20
- 21 - 25
- 26 - 30
- 31 - 35

Facility Data from 2020

MAJOR CRIMES



KEY

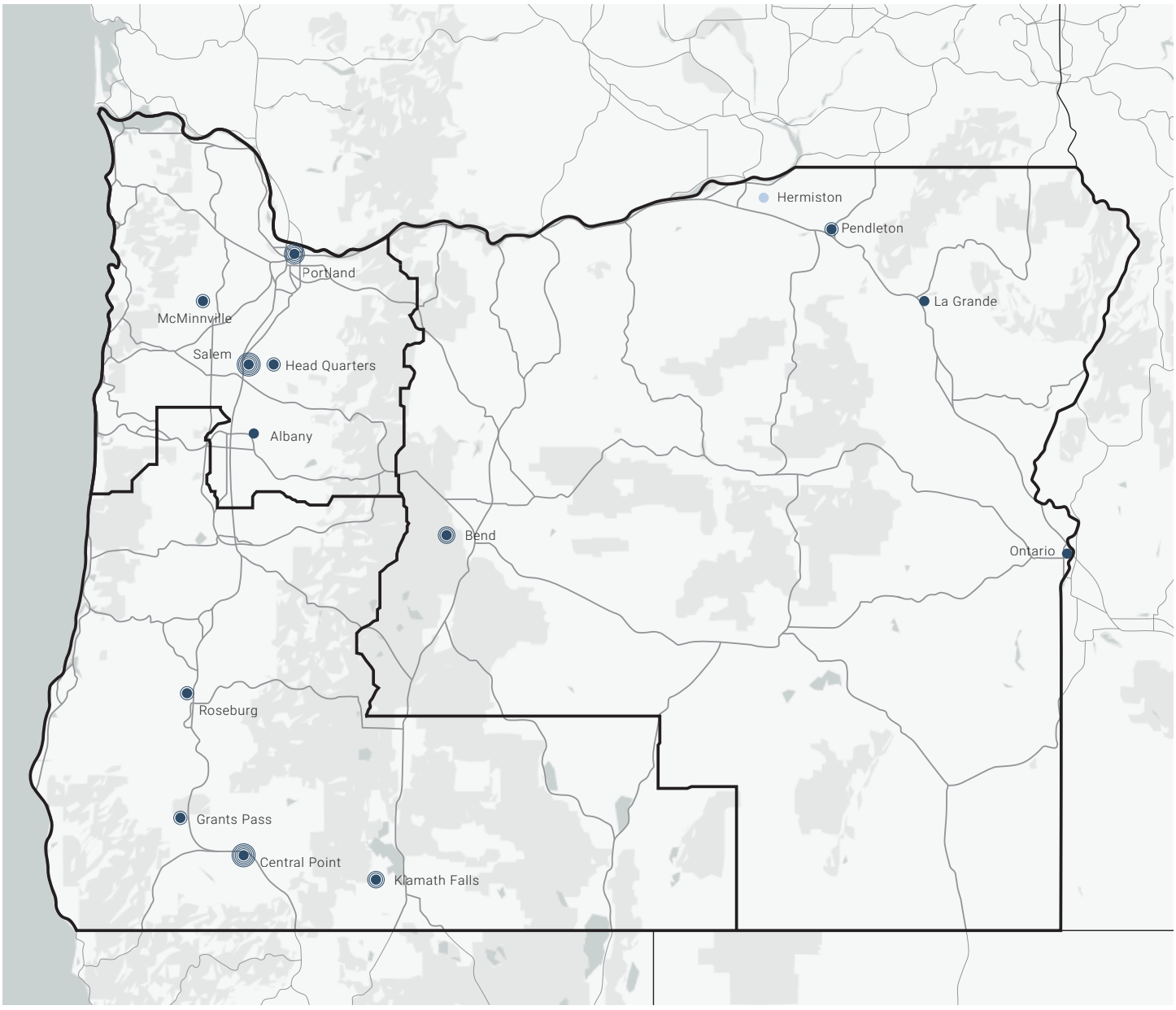
- Area Command
- Worksite

Authorized Strength per Detective

- 1 - 2
- 3 - 4
- 5 - 6
- 7 - 8
- 9 - 10
- 11 - 12
- 13 - 14

Major Crimes Data from April 2020

DRUG TASK FORCE



KEY

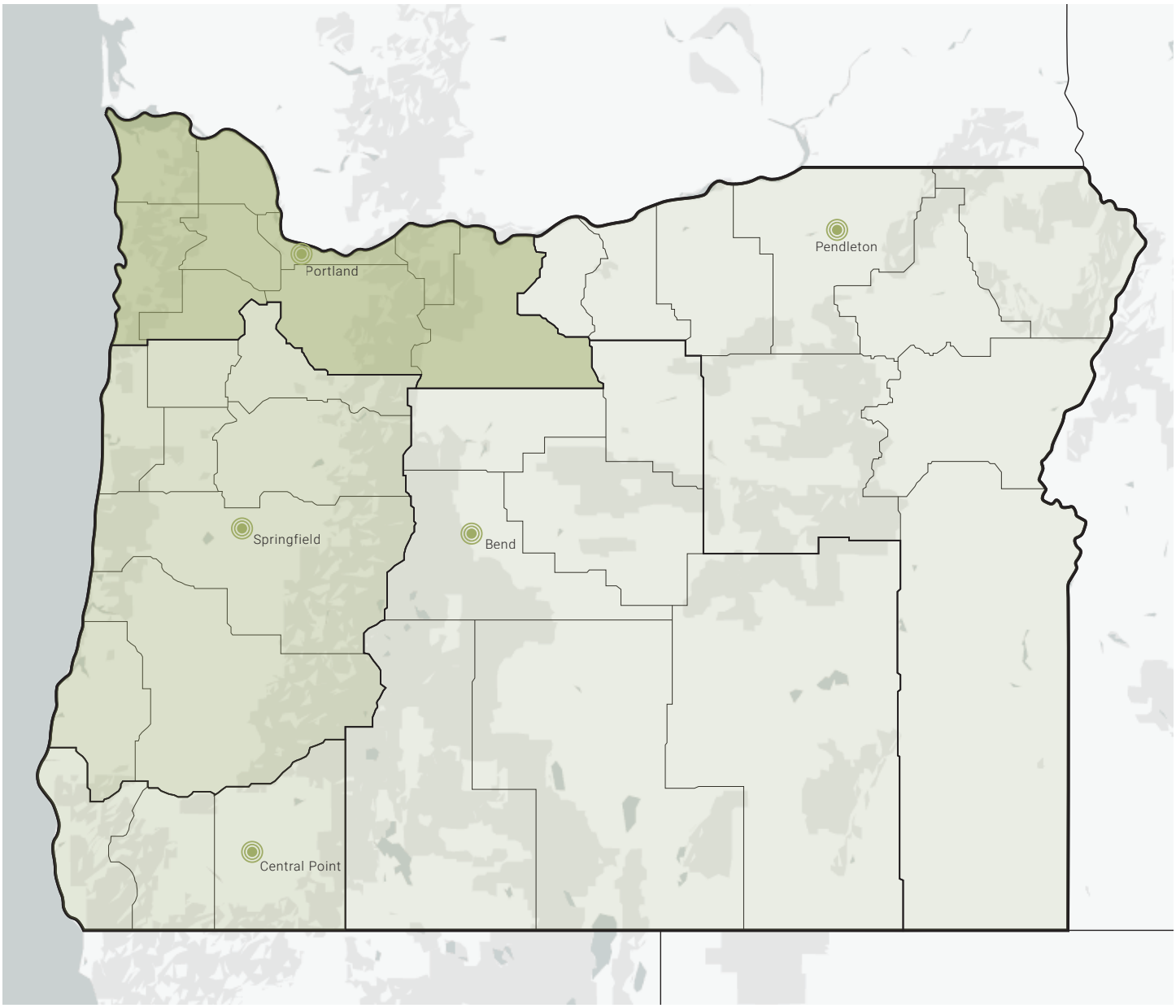
- Area Command
- Worksite

Authorized Strength

- 1
- 2
- 3
- 4
- 5

Drug Task Force Data from April 2020

OSP FORENSIC SERVICES LABS AND DISTRIBUTION



KEY Case Distribution

45% Portland Lab
Biology Processing
Chemistry
DNA
Field Investigations
Firearms / Tool Mark Analysis
Implied Consent Program
Toxicology
Latent Print Analysis
Trace Evidence Analysis

21% Springfield Lab
Biology Processing
Chemistry
Field Investigations
Firearms Processing
Latent Print Analysis
Toxicology
Trace Evidence Analysis

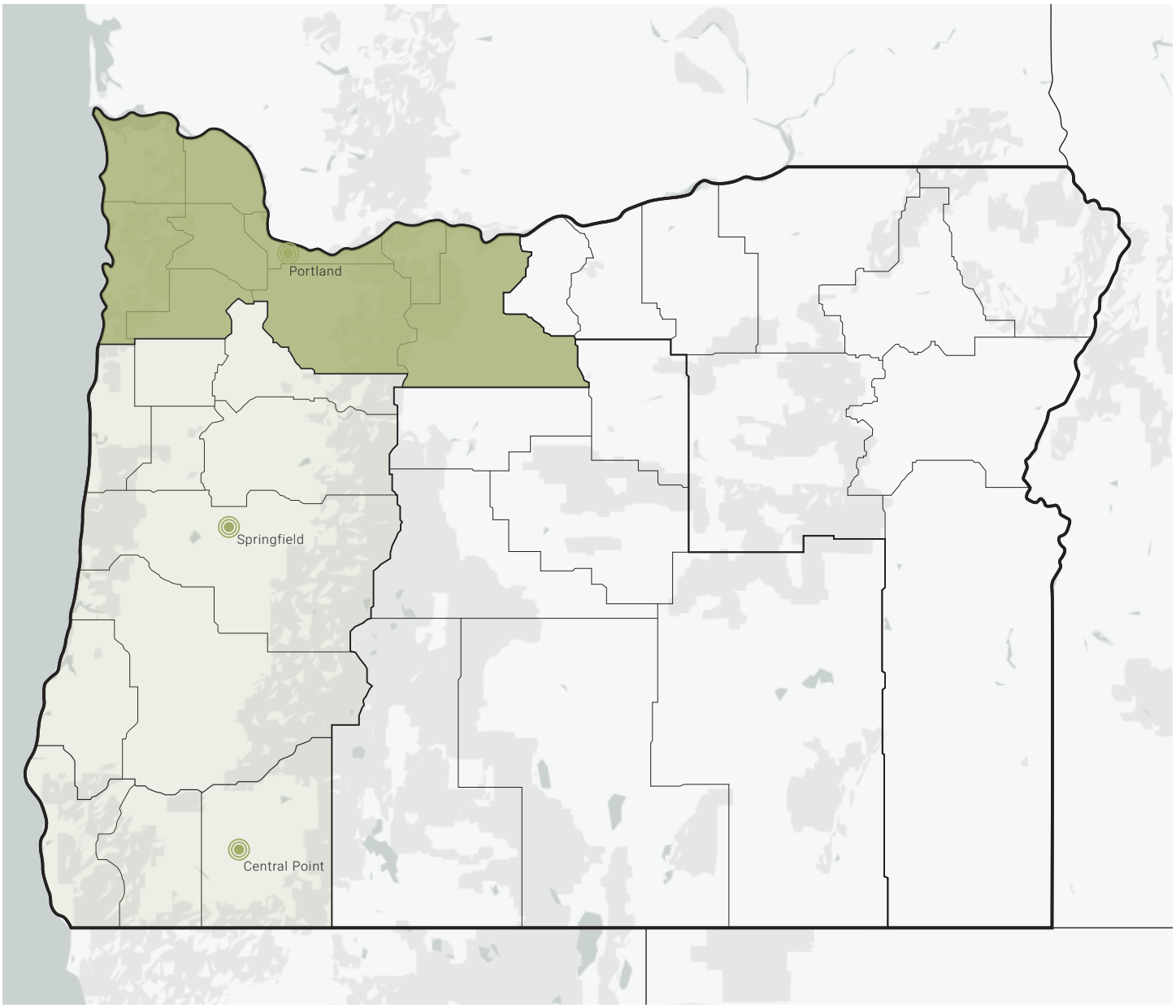
11% Central Point Lab
Biology Processing
Chemistry
Field Investigations
Firearms Processing
Latent Print Analysis
Serial Number Restoration

4% Bend lab
Biology Processing
Chemistry
Field Investigations
Latent Print Analysis

4% Pendleton Lab
Biology Processing
Chemistry
Field Investigations
Firearms Processing
Latent Print Analysis

Forensic Servics Data from 2019

OSP MEDICAL EXAMINER AND DISTRIBUTION

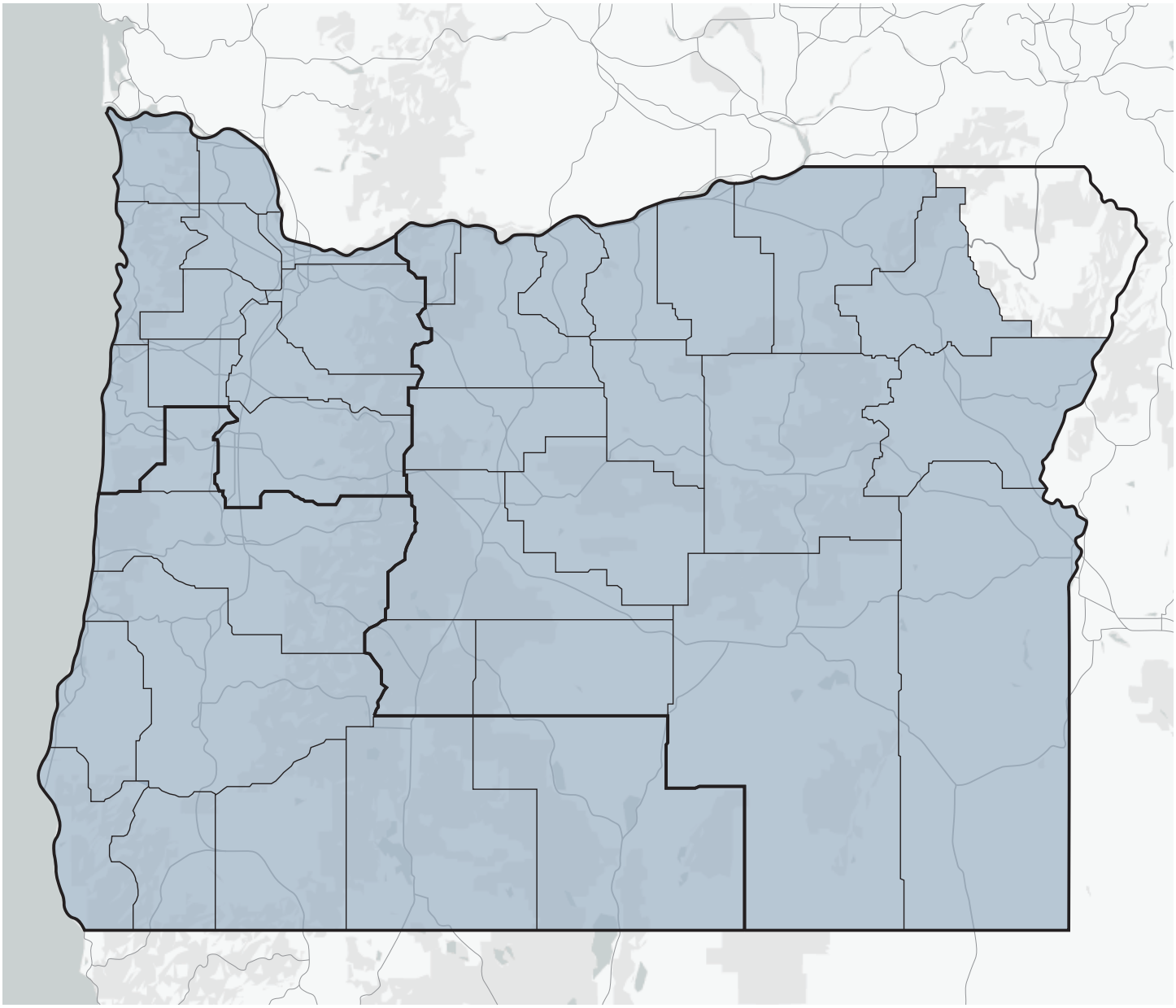


KEY Case Distribution

- 76% Portland Lab
- 12% Springfield Lab
- 12% Central Point Lab

Medical Examiner Data from 2019

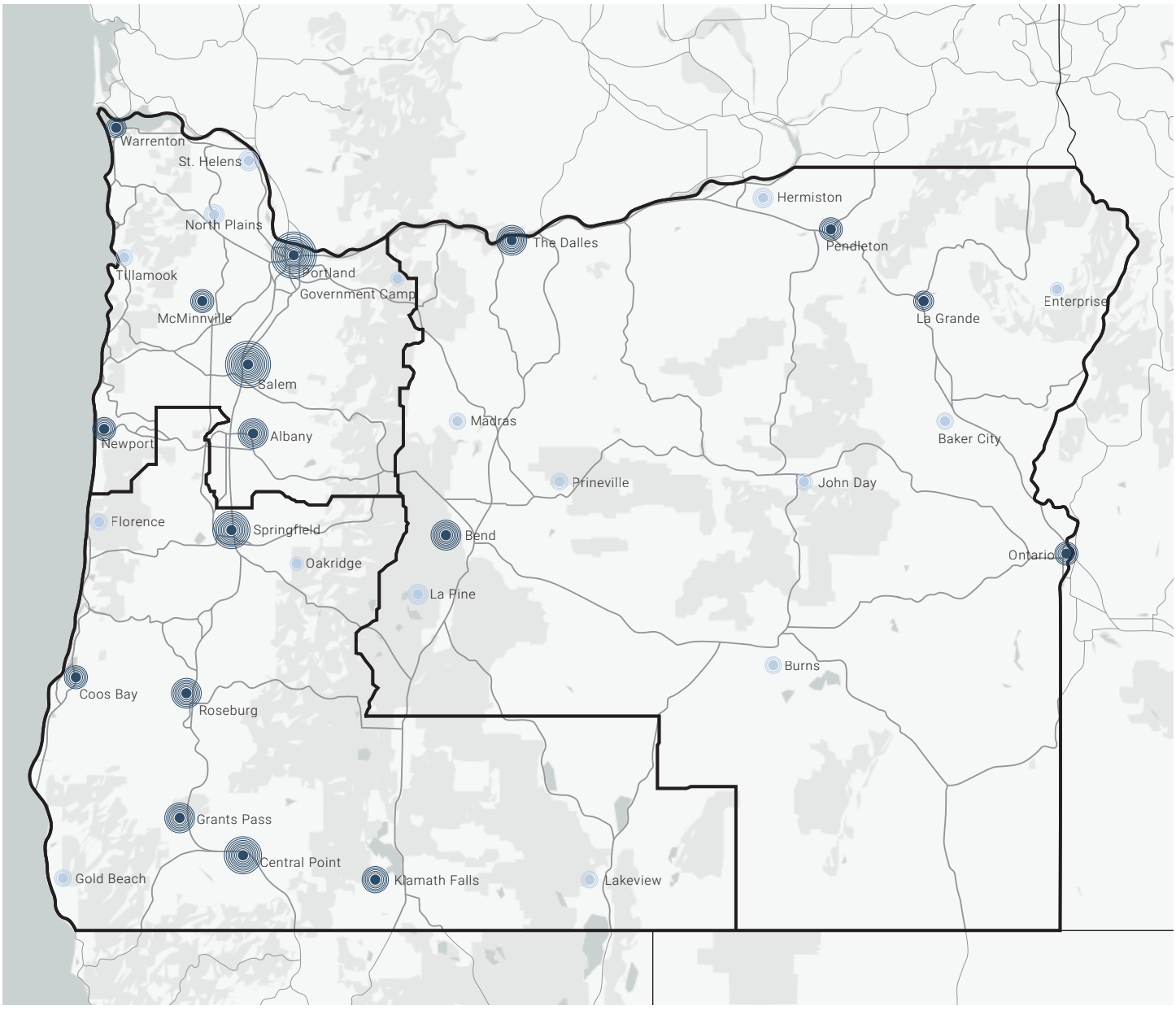
24 HOUR PATROL - 2030



KEY

24 Hour Patrol

OSP FACILITIES - 2030



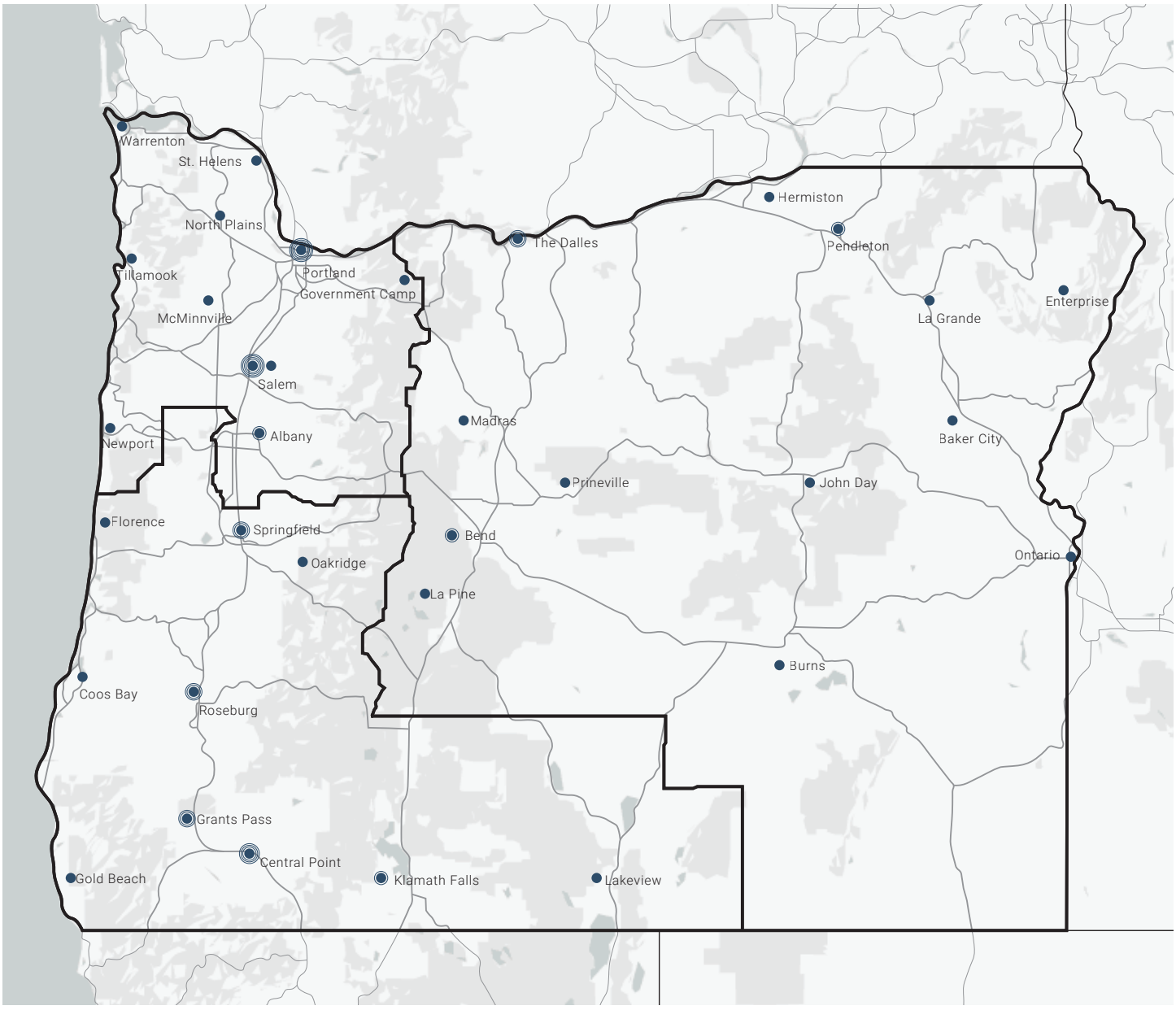
KEY

- Area Command
- Worksite

Authorized Strength per Officer

- 0 -5
- 6 - 10
- 11 - 15
- 16 - 20
- 21 - 25
- 26 - 30
- 31 - 35
- 36 - 40
- 41 - 45
- 46 - 50
- 51 - 55

ASSIGNED CALLS FOR SERVICE



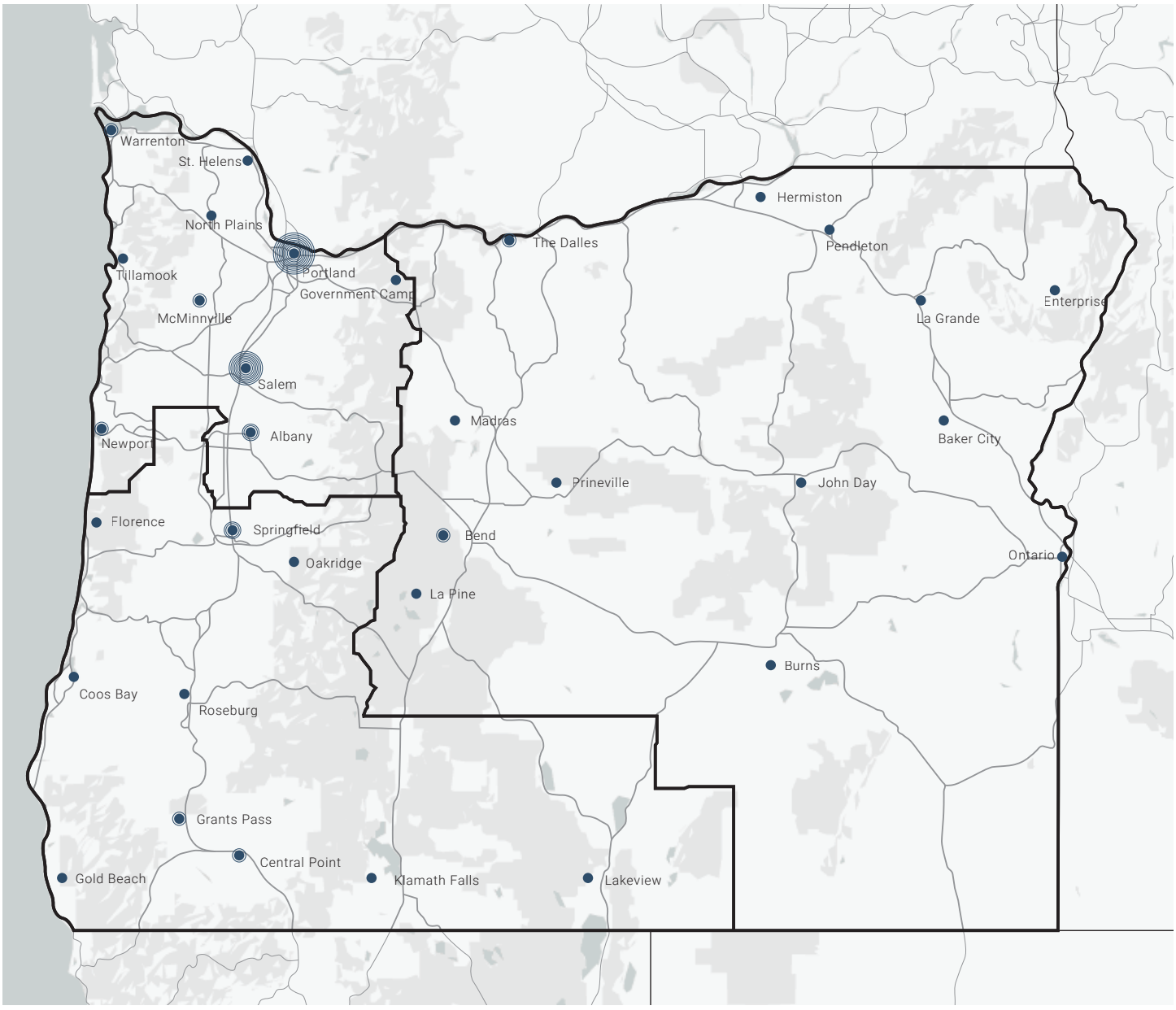
KEY

Percent of Assigned Calls for Service

- 0 -2
- 3 - 4
- 5 - 6
- 7 - 8
- 9 - 10

Calls for Service Data from 2019

UNANSWERED CALLS



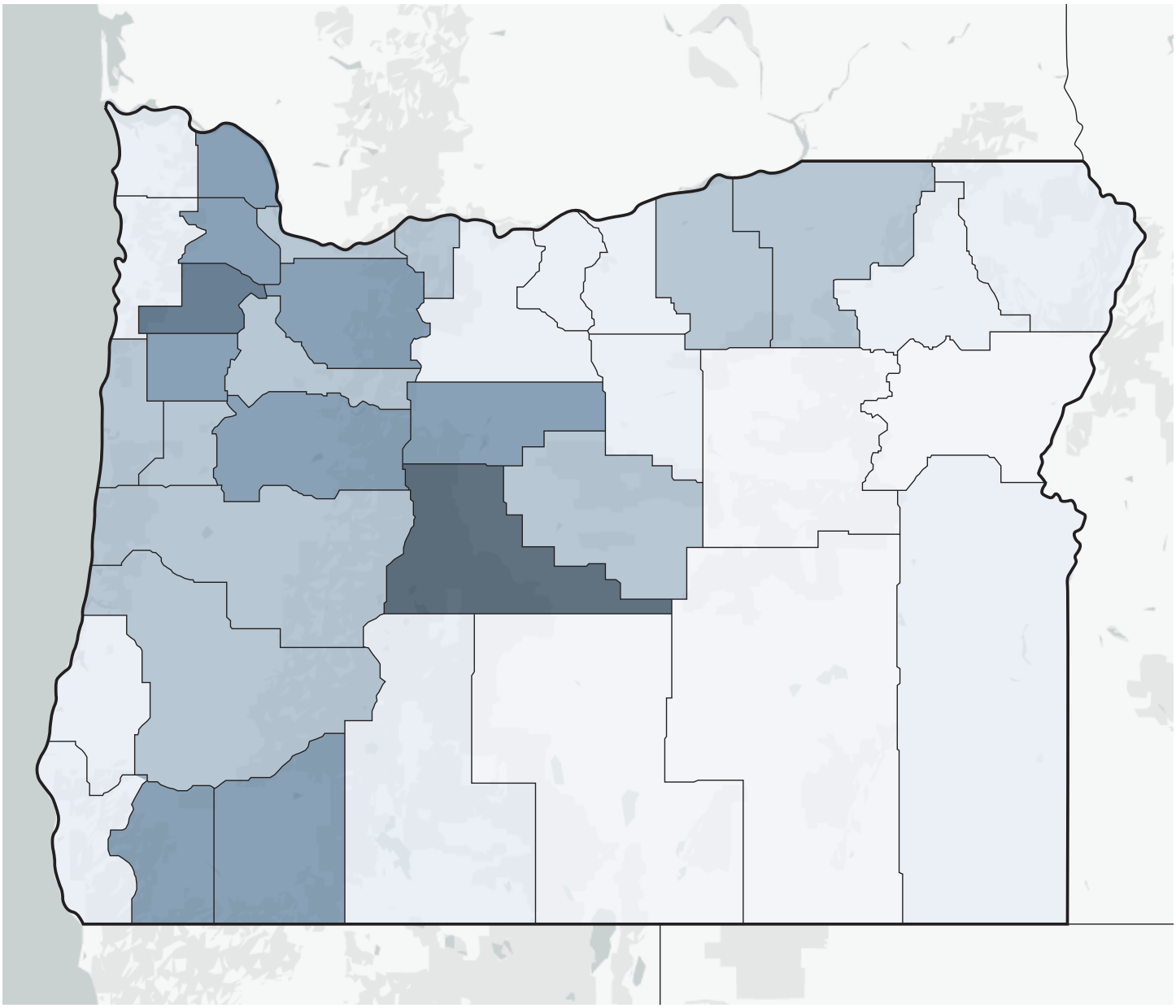
KEY

Percent of Unanswered Calls

- 0 - 2
- 3 - 4
- 5 - 6
- 7 - 8
- 9 - 10
- 11 - 12
- 13 - 14
- 15 - 16
- 17 - 18
- 19 - 20

Unanswered Calls Data from 2019

POPULATION INCREASE



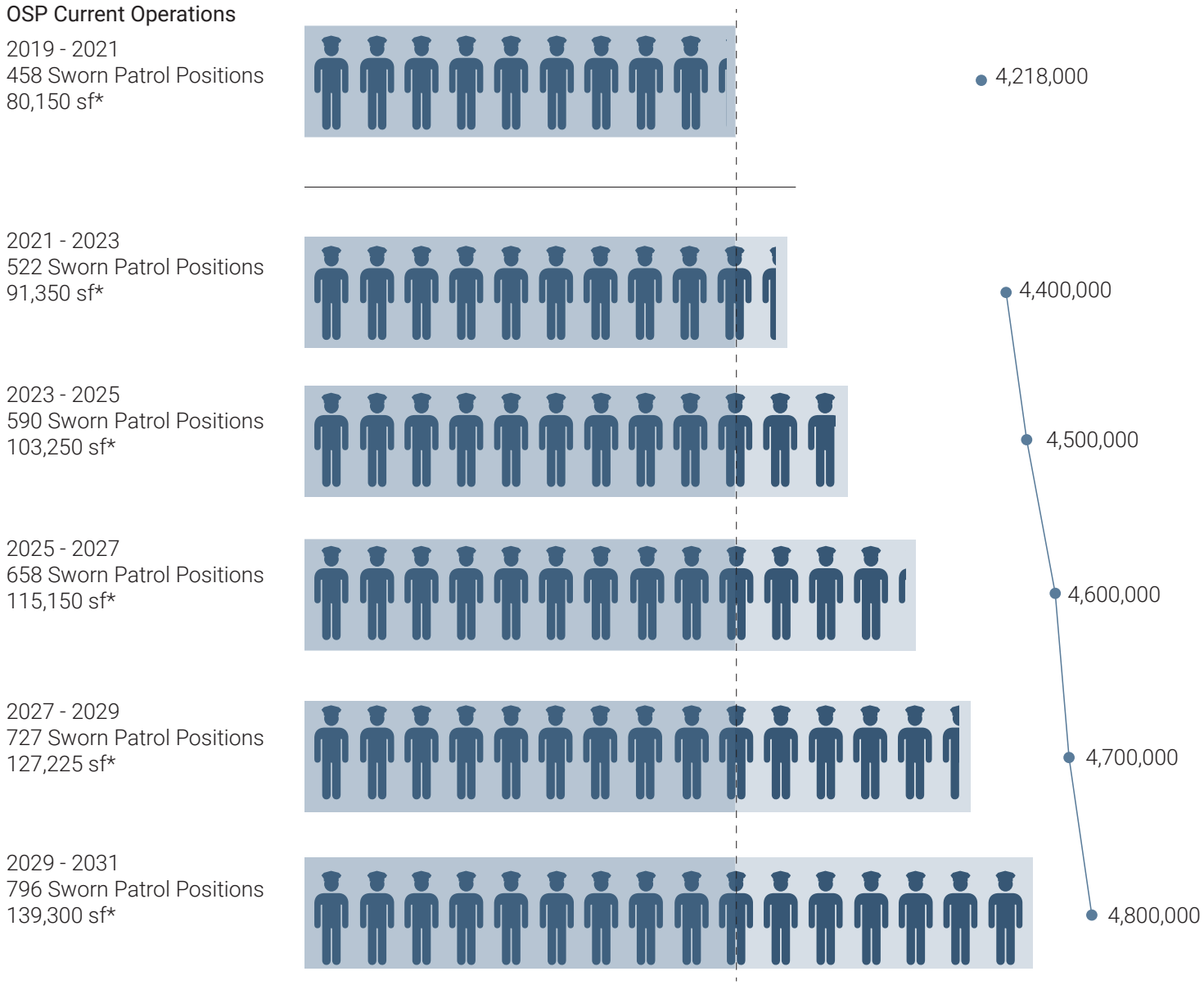
KEY

Percent Increase

- 90 - 100
- 100 - 110
- 110 - 120
- 120 - 130
- 130 -140
- 160 - 170

Major Crimes Data from 2000 - 2016

PATROL SERVICES DIVISION SWORN STAFFING AND FACILITY PROJECTIONS - 10 YEAR PLAN



KEY

- 50 OSP Sworn Staff
- OSP Current Facility Capacity
- Recommended Facility Size
- Projected Oregon Population

Oregon State Police staffing is anticipated to increase in proportion to Oregon's population growth in order to establish a more effective ratio between the number of staff and the civilian population. For example, SB1545 (2020) which ultimately did not pass during the 2020 legislative session proposed increasing the number of Patrol troopers from 8 sworn per 100,000 population to 15 sworn per 100,000 population. OSP facilities need to expand to accommodate this increase in staff numbers, or will even more quickly outgrow their already undersized facilities.

*Square footage calculated using 175 per staff metric for only sworn staff. Does not include vehicles and specialty support spaces.

Step 3 - Prototypes

SUMMARY

The following section shares prototype models for future Oregon State Police projects, using the Springfield Area Command and Lab and the Central Point Command Center and Lab as case studies. The prototypes represent target square footages related to program needs and anticipated staffing numbers.

The prototypes were developed by looking at OSP facilities as state-wide system, while keeping in mind that each location and facility type has its own specific challenges and opportunities. During the initial information-gathering phase, comprehensive staff questionnaires were filled out by patrol operations staff from the Southwest region, as well as Medical Examiner and Forensic staff from across the state. After that, a series of virtual workshops was held online to identify needs specific to Area Command, Forensic Services Lab, and Medical Examiner facilities. The consultant team detailed recent trends specific to each facility type, and OSP staff from across the state were able to share their first-hand experiences with the team.

A number of key findings emerged from the prototype workshops regarding improvements that can be made state-wide. For example, Forensic Services Lab and Medical Examiner case loads could be more efficiently distributed across the state by re-working regional capacity. While Central Point shares many similarities with Pendleton and Bend as a regional model, the Springfield facilities are uniquely positioned to become an enhanced center of OSP services. Furthermore, the facility life of the Portland Forensic Services Lab can be extended by moving several functions to Springfield. Doing so would allow the Portland lab to grow its Biology and DNA processing capacity at the current facility. This is reflected in the increased square footage alloted to Forensic Services Lab and Medical Examiner functions in the Springfield model prototypes.

COMMAND PROTOTYPE MODEL: SPRINGFIELD

The design team facilitated multiple workshops with OSP staff to generate a scalable prototype model for Area Command facilities. The facility attributes and needs were documented in a series of program categories. These are shown in the table below, from 1.00 Public Spaces - 8.00 Evidence / Bag & Tag.

Example Functions in each Program Category

1.00	Public: Lobby, registrants vestibule, interview room, public restroom
2.00	Trooper / F & W / Investigations: Report writing area, offices
3.00	Training / Meeting & Support: Meeting rooms, break room, lockers, trooper equipment storage
4.00	Impairment Processing: Processing space, toilet
5.00	Emergency Communications: Manager and supervisor offices, dispatch work-stations, server room
6.00	Building Support: Mechanical room(s), sprinkler room(s)
7.00	Support Building: Auto repair functions, Fish & Wildlife vehicles, evidence vehicle exam bay
8.00	Evidence / Bag & Tag: Evidence processing room, evidence technician office, evidence storage

With increased staff comes an increased need for space. Some areas have square footage directly tied to the projected number of particular staff positions, for example, the offices for detectives or report writing stations for troopers. Other areas, such as the break room or toilet facilities, have square footage based on the total number of all staff. Still other spaces are factored in using a standard size that is not related to staffing but is instead based on program needs: an interview room, 50-person meeting room, or public lobby.

The prototype was then customized to the unique program needs and staffing projections for Springfield. With these specific needs entered into the spreadsheet, the design team was able to calculate the required building square footage to meet OSP's operational requirements.

All of these categories, 1.00-8.00, are added together as applicable to determine the net square footage of the Main Facility (8,890 sf) and the Support Building (5,565 sf). Beyond this number, a factor needs to be added to account for building circulation, thickness of walls, mechanical shafts, and the like. With that grossing factor added for the Main Facility and Support Building, we reach a total gross square footage of 17,176 sf for the Area Command facilities. It should be noted that the gross square footage of the facility does not include the surrounding area of the site. The site requirements for each facility are calculated as part of the conceptual planning section.

The next layer of information that is provided by this model is the gross square feet of area per staff member. This factor provides a useful check in ensuring that a facility is the appropriate size for the number of staff needed. The Main Building, which houses all of the office functions, has 180 gross sf of area per staff number. This is on track to meet the aggregate space standard of 175 usable square feet per head count put forth in Department of Administrative Services state-wide policy.

		Number of Staff				
		Current Staffing	Move-in Staff	20-Year Staffing Estimate	20-Year Area Estimate	
Springfield	**Year**	**2020**	**2023**	**2043**	**2043**	*Remarks*

Area Summary: Oregon State Police Command Center

Springfield

Springfield	**Staff / Section**			
	2020	**2023**	**2043**	**2043**
1.00 Public Spaces	0	0	0	530
2.00 Trooper / F & W / Investigations Office Area	42	42	58	2,522
3.00 Training / Meeting & Support Spaces	0	0	0	4,975
4.00 Impairment Processing	0	0	0	343
5.00 Not Used	0	0	0	0
6.00 Building Support	0	0	0	610
7.00 Support Building	1	1	1	
8.00 Evidence / Bag & Tag	1	1	1	
Total OSP Troopers, F&W and Non-lab Staff	**44**	**44**	**60**	
Net Square Footage of Main Facility:				**8,980**
Total Main Building Gross SF (Single Story)	Grossing Factor	20%		1,796
TOTAL GROSS SQUARE FOOTAGE OF SINGLE STORY MAIN BUILDING:				**10,776**
Gross Square Feet of Area of Main Building Per Staff:				**180**

Support Building	
7.00 Support Building	4,217
8.00 Evidence / Bag & Tag	1,348
Net Square Footage of Main Facility:	**5,565**
Total Main Building Gross SF (Single Story) Grossing Factor 15%	835
TOTAL GROSS SQUARE FOOTAGE OF SINGLE STORY SUPPORT BUILDING:	**6,400**
TOTAL GROSS SQUARE FOOTAGE OF FACILITIES:	**17,176**

COMMAND PROTOTYPE MODEL: CENTRAL POINT

The prototype model for the Central Point Command Center utilizes the process outlined for Springfield on the previous page, but is adapted to the unique program needs and staffing projections for Central Point.

For the Central Point model, an additional program category was added (5.00) in order to provide space for the Emergency Communications/ Dispatch function that is located at this facility.

The program category square footages total a net square footage of 13,739 square feet for the Main Facility and 7,323 sf for the Support Building. With a grossing factor added for building circulation, mechanical shafts, etc, we reach a total gross square footage of 24,908 sf for the Central Point Command facilities.

Central Point	Year	Number of Staff: Current Staffing 2020	Number of Staff: Move-in Staff 2023	Number of Staff: 20-Year Staffing Estimate 2043	20-Year Area Estimate 2043	Remarks

Area Summary: Oregon State Police Command Center

Central Point

Central Point	Staff / Section 2020	2023	2043	2043
1.00 Public Spaces	0	0	0	530
2.00 Trooper / F & W / Investigations Office Area	49	49	70	3,728
3.00 Training / Meeting & Support Spaces	0	0	0	5,320
4.00 Impairment Processing	0	0	0	343
5.00 Emergency Communications / Dispatch	39	39	45	3,208
6.00 Building Support	0	0	0	610
7.00 Support Building	1	1	1	
8.00 Evidence / Bag & Tag	2	2	2	
Total OSP Troopers, F&W and Non-lab Staff	**91**	**91**	**118**	
Net Square Footage of Main Facility:				**13,739**
Total Main Building Gross SF (Single Story)	Grossing Factor	20%		2,748
TOTAL GROSS SQUARE FOOTAGE OF SINGLE STORY MAIN BUILDING:				**16,486**
Gross Square Feet of Area of Main Building Per Staff:				**140**

Support Building	
7.00 Support Building	5,913
8.00 Evidence / Bag & Tag	1,410
Net Square Footage of Main Facility:	**7,323**
Total Main Building Gross SF (Single Story)	Grossing Factor 15% 1,098
TOTAL GROSS SQUARE FOOTAGE OF SINGLE STORY SUPPORT BUILDING:	**8,422**
TOTAL GROSS SQUARE FOOTAGE OF FACILITIES:	**24,908**

FORENSIC SERVICES PROTOTYPE MODEL

This scaleable prototype model for the Oregon State Police Forensic Laboratory System takes into account the many unique attributes and features of this highly specialized building type. In the prototype model the spaces are broken into the series of program categories shown in the table at right, from 1.00 Lab Administration - 8.00 Toxicology, as applicable to each facility. For each program category, staffing projections were used as a factor to size the spaces in a way that accommodates projected growth.

While some categories in the model have square footage directly tied to the projected number of particular staff positions, other areas have square footage based on the total number of all staff. Still other spaces are factored in using a standard size that is not related to staffing but is instead based on program needs. Each of these calculations is based on insights gleaned in the workshops and facility surveys as well as in-depth knowledge of this building type and data from similar projects.

A key outcome of the prototype workshops was the determination that the Springfield Area Command and Lab is uniquely positioned to become an enhanced center of OSP services in its region. To achieve this, staffing in Springfield would see a significant increase over the next 20 years, while OSP facilities in Central Point, Bend, and Pendleton could remain relatively the same size in terms of staffing.

The prototype models reflect this increased staff and service capacity for Springfield to make these targeted state-wide improvements possible. Taking all information together, the models recommend a total gross square footage of 48,016 square feet for the Springfield Forensic Services Laboratory and 9,649 sf for the Central Point lab.

Staffing Forecast
(Other OSP Forensic Services Labs)

Pendleton	Current	2043
1.00 Lab Administration	1	1
2.00 Lab Support/Employee Facilities	0	0
3.00 Evidence Control	1	1
4.00 Biology	1	2
5.00 Chemistry	1	4
6.00 Latent Print Processing	2	2
Total Lab Staff for Facility	**6**	**10**

Bend	Current	2043
1.00 Lab Administration	2	3
2.00 Lab Support/Employee Facilities	0	0
3.00 Evidence Control	1	1
4.00 Biology	2	2
5.00 Chemistry	2	5
6.00 Latent Print Processing	3	2
Total Lab Staff for Facility	**10**	**13**

Portland	Current	2043
1.00 Lab Administration	3	10
2.00 Lab Support/Employee Facilities	0	0
3.00 Evidence Control	5	6
4.00 Biology	32	45
5.00 Chemistry	9	10
6.00 Latent Print Processing	9	5
7.00 Toxicology	19	19
8.00 Trace Evidence	4	4
9.00 Firearms	7	7
Total Lab Staff for Facility	**88**	**106**

Space Name	Year	Number of Staff: Current Staffing	Number of Staff: Move-In Staff	Number of Staff: 20-Year Staffing Estimate	20-Year Area Estimate	Remarks:
		2020	2023	2043	2043	

Area Summary: Oregon State Police Forensic Laboratory System — *Springfield*

Base Laboratory Design/Blood Alcohol/LP Comparison

Springfield	Staff / Section 2020	2023	2043	2043
1.00 Lab Administration	1	5	5	1,415
2.00 Lab Support/Employee Facilities	0	0	0	5,369
3.00 Evidence Control	2	3	4	3,304
4.00 Biology	2	2	2	1,040
5.01 Chemistry/Blood Alcohol	7	9	9	6,768
6.01 Latent Print Process/Comparison	7	15	15	5,415
7.00 Toxicology	5	24	24	13,624
Total Lab Staff for Facility:	**24**	**58**	**59**	
Net Square Footage of Facility:				**36,935**
Grossing Factor 30%				11,081
TOTAL GROSS SQUARE FOOTAGE OF FACILITY :				**48,016**
Gross Square Feet of Area per Lab Staff:				814

Area Summary: Oregon State Police Forensic Laboratory System — *Central Point*

Base Laboratory Design

Central Point	Staff / Section 2020	2023	2043	2043
1.00 Lab Administration	1	1	1	283
2.00 Lab Support/Employee Facilities	0	0	0	1,001
3.00 Evidence Control	1	1	1	616
4.00 Biology	1	2	2	1,040
5.00 Chemistry	4	5	5	3,760
6.00 Latent Print Processing	4	2	2	722
Total Lab Staff for Facility:	**11**	**11**	**11**	
Net Square Footage of Facility:				**7,422**
Grossing Factor 30%				2,227
TOTAL GROSS SQUARE FOOTAGE OF FACILITY :				**9,649**
Gross Square Feet of Area per Lab Staff:				877

MEDICAL EXAMINER PROTOTYPE MODEL

Similar to the Forensic Services Laboratory scaleable prototype, this model for the Oregon State Police Medical Examiner System takes into account the many unique demands of the program and the information gleaned through staff surveys and workshops.

A major takeaway from the existing facility tours, staff surveys, and prototype workshops was the need to significantly increase medical examiner capacity state-wide. Right now, 76% of the medical exam case load is directed to Portland, with the remaining cases evenly split between Springfield and Central Point. However, the Portland facility reaches capacity every 4-6 weeks, and more rural areas in the state remain drastically underserved.

The National Association of Medical Examiners recommended Oregon should perform 3,259 autopsies per year based on population. Due to lack of facilities, Oregon performed only 846 in 2017, 728 in 2018, and 759 in 2019. This has many repercussions state-wide; for example, it is worth noting that autopsies are an important public health surveillance tool. Investment in OSP Medical Examiner facilities will allow for continued progress toward national standards and more equitable service distribution across the state.

The size of a Medical Examiner facility is driven by the number of autopsies desired and number of certified pathologists to perform them. The prototype models reflect the increased staff and service capacity that is needed in order to make these key improvements to state wide services possible. Springfield's central location along I-5 allows OSP to strategically invest in medical examiner services to both maximize the existing facility life in Portland as well as right size Central Point to fit on the existing site OSP owns.

The spaces are broken into the series of categories shown in the table at right, from 1.00 Public Entry - 4.00 Sally Port/ Storage. For each program category, staffing projections were used as a factor to size the spaces in a way that accommodates projected growth. The program category totals are added up to determine the net square footage for each laboratory. Beyond these numbers, a factor needs to be added for building circulation, thickness of walls, mechanical shafts, and the like. Taking all of this information together, the models recommend a total gross square footage of 22,309 square feet for the Springfield Medical Examiner and 12,413 sf for the Central Point Medical Examiner.

Staffing Forecast
(Other OSP Medical Examiner Locations)

Portland	Current	2043
1.00 Public Entry	0	0
2.00 Administrative Offices	13	33
3.00 Autopsy Complex	0	0
4.00 Sally Port / Storage	0	0
Total Lab Staff for Facility	**13**	**33**

Area Summary: Oregon State Police Medical Examiner System — *Springfield*

Springfield	Staff / Section 2020	2023	2043	2043
1.00 Public Entry				918
2.00 Administrative Offices	1	3	18	4,181
3.00 Autopsy Complex				7,529
4.00 Sally Port/Storage				4,534
Total Lab Staff for Facility:	**1**	**3**	**18**	
Net Square Footage of Facility:				**17,161**
Grossing Factor 30%				5,148
TOTAL GROSS SQUARE FOOTAGE OF FACILITY :				**22,309**
Gross Square Feet of Area per Lab Staff:				1,239

Area Summary: Oregon State Police Medical Examiner System — *Central Point*

Central Point	Staff / Section 2020	2023	2043	2043
1.00 Public Entry				918
2.00 Administrative Offices	2	2	5	2,187
3.00 Autopsy Complex				4,563
4.00 Sally Port/Storage				1,881
Total Lab Staff for Facility:	**2**	**2**	**5**	
Net Square Footage of Facility:				**9,549**
Grossing Factor 30%				2,865
TOTAL GROSS SQUARE FOOTAGE OF FACILITY :				**12,413**
Gross Square Feet of Area per Lab Staff:				2,483

04 CONCEPTUAL PLANNING & COST

OVERVIEW

The next step is to propose a conceptual development plan and cost with design criteria for new facilities established using prototypes customized to the unique program needs and staffing projections for both Springfield and Central Point. Both locations have a strong case to be made for making improvements as soon as is viable.

Why Springfield

Investing in the Springfield facilities now would have many benefits and make a positive impact for decades to come. Area Command functions would directly benefit from significant improvements to the cramped spaces and lack of security that staff currently face. On top of this, the increased capacity proposed for Springfield Forensic Services and Medical Examiner functions would take the disproportionate case load burden off of the Portland facility.

This investment would also be a major improvement to Oregon State Police department resiliency. In the event of an earthquake or other infrastructure collapse in Portland, the whole state would not have to rely so heavily on one OSP facility. With its central location on I-5, population in central Oregon rapidly growing, and proximity to the University of Oregon for forensic science recruitment and training, Springfield is the clear choice for an enhanced center of OSP services in the region. The facility lease with ODOT expires in 2023, so now is the time to plan next steps.

Why Central Point

In order to provide effective public safety services into the future, investment in the Central Point facility also needs to happen now. The Central Point facility is currently the only location owned, and not leased, by OSP. However, the infrastructure of the facility itself remains in its original conditions and has not been improved in 23 years. This is resulting in significant deficiencies in terms of resiliency, security, operations, and building environment, as evidenced in the existing facilities portion of this report.

The area surrounding Central Point has experienced a large population growth over recent years. This increased demand has caused the availability of OSP services, particularly of the Medical Examiner, to fall significantly behind. Travel distance is a key factor in the ability to provide these services, with rural areas being the most under-served. Central Point is well-positioned to expand its service region further into Southern and Central Oregon if its Medical Examiner facility can increase service capacity.

COST SUMMARY

The following pricing summary is a Rough Order of Magnitude (ROM) cost estimate. Since the project is not designed, the cost estimating comes from market research applied to the square footage of the program.

Direct Construction Costs

Pricing starts with the Direct Construction Cost, also known as Hard Costs. This includes cost per square foot values for the direct material and labor costs associated with each facility type. A percentage is then applied to these ROM values to factor in contingency and contractor markups. The resulting construction budget represents the total amount incurred by the general contractor to construct the facility.

ROM Values

The Project Team used comparable projects to generate a baseline number for each facility type that will be part of Springfield and Central Point projects. This includes Area Command, Warehouse, Dispatch, Crime Lab, and Medical Examiner operations. Both FFA and MWL have design and constructed over 20 comparable facilities both locally and nationally to draw data from. This data was provided to the cost estimating consultant, RLB, as part of the cost estimating process. RLB added this information to their construction data base, escalated each project accordingly to a 2020 budget, and then tailored each value to regional factors specific to Springfield and Central Point. The average from these projects allowed the team to have a fair and realistic cost to apply to the building square footage. The resulting ROM values are comparable to other facilities being built in the region.

Comparable Facility ROM Costs

Hard Costs	Springfield	Central Point
Area Command	$ 347.00 sf	$ 354.00 sf
Warehouse	$ 285.00 sf	$ 291.00 sf
Dispatch	-	$ 362.00 sf
Forensic Services Lab	$ 395.00 sf	$ 404.00 sf
Medical Examiner	$ 475.00 sf	$ 485.00 sf
Developed Site Area	$ 55.00 sf	$ 62.00 sf

Contingency

In this early stage, since nothing is drawn or detailed, an estimating contingency percentage is also applied to the direct construction cost. We recommend this starts at 15% for new construction and 20% for remodels in the ROM cost phase and then as the design develops, the percent contingency held will reduce.

Contractor Markups

The general contractor then applies a markup to cover the contractor's overhead and profit, bonding and insurance, and general conditions. The contractor markups also include the 1.5% for green technology (ORS 279C and OAR 330-135-0010) and 1% for art (ORS 276.080). The industry average is 19.5%.

Soft Costs

Soft costs are a percentage that gets applied to the hard cost total. This percentage will include all of the other factors that go into a project including: Architectural and Engineering design fees, geotechnical reports, site surveys, and special inspections, building permits and System Development Charges (SDC), furniture and A&V systems, etc. Land acquisition and temporary operational requirements are not factored into either hard costs or soft costs and will need to be estimated separately by the OSP.

Escalation

Through market research and the current trends in construction escalation, the Project Team estimated a base number of the Total Proposed Project Budget, the hard costs and soft costs totaled together. This number is based on the current 2020 market. The Portland area has recently had one of the highest year-over-year rate increases in the comparative cost of construction, it is typically recommend to apply a 7% compounding factor to the 2020 construction budget. It is still uncertain how COVID-19 will impact the economic conditions but considering the recent developments we have lowered this escalation to 3.5% in 2021, 4.5% in 2022, and 4.0% in 2023. Each year construction is held off, the total number will escalate.

CONCEPTUAL PLAN & COST: SPRINGFIELD AREA COMMAND

The Springfield Facility estimated cost chart to the right takes the square footage areas from the Springfield Area Command prototype model and extrapolates a proposed project budget ROM cost. The estimated cost chart for the Springfield Forensic Services Lab and Medical Examiner facility is broken out as a separate project on the next spread.

Financial Logic

Cost savings can be achieved by developing the Springfield Area Command facilities on a separate site from Forensic Services and Medical Examiner facilities, for a couple of reasons. For example, Area Command functions necessitate a location very close to I-5, which comes with a cost premium. Additionally, the Area Command components are the only program areas that are required to be developed to essential facility standards. These enhanced requirements add significant resiliency, but also add necessary cost. By separating the Area Command site from Forensic Services and Medical Examiner functions, each element is built to the level that makes sense in terms of design and budget.

Facility Size

The current building in Springfield has 13,548 sf total, across all disciplines. The prototype model identified the need for 17,176 sf, just for Area Command functions. This is an increase in built area of more than 20% from the current building, on top of expanded site development needs.

Site

The proposed development strategy is to locate the Area Command facility on a site that is close to I-5 and built to essential facility standards. The existing site in Springfield does not meet current needs, much less provide space for future growth. By locating the Springfield Area Command on a new site, it can be purpose-built and accomplish OSP's goals of maximizing agency productivity, employee satisfaction, and public perception for years to come.

Springfield Facility Size Data

Area Command Site	
Area Command	10,776 sf
Warehouse	6,400 sf
Total Building	**17,176 sf**
Developed Site	30,980 sf
Total Site	**87,120 sf (2 acres)**

Springfield Area Command Estimated Cost

Direct Construction Cost			
Area Command			
Area Command (10,776 sf)		$ 347 / sf	$ 3,739,272
Warehouse (6,400 sf)		$ 285 / sf	$ 1,824,000
Site (30,980 sf)		$ 55 / sf	$ 1,703,900
		Sub-Total:	**$ 7,267,172**
Estimated Contingency	15%		$ 1,090,076
Contractor Mark-Ups	19.5%		$ 1,629,663
Proposed Construction Budget	**2020**		**$ 9,986,911**
Soft Costs			
Project Soft Costs	30%		$ 2,996,073
Proposed Project Budget	2020		$ 12,982,984
	2021	(3.5%)	$ 13,437,388
	2022	(4.5%)	$ 14,042,071
	2023	**(4.0%)**	**$ 14,603,754**
	2024	(4.0%)	$ 15,187,904
	2025	(4.0%)	$ 15,795,420

CONCEPTUAL PLAN & COST: SPRINGFIELD FORENSIC LAB & M.E.

The Springfield Facility Estimated Cost chart to the right takes the square footage areas from the prototype models for the Springfield Forensic Services Laboratory and Medical Examiner facilities and extrapolates a proposed project budget ROM cost.

Financial Logic

In addition to all of the state-wide improvements to OSP services previously mentioned, developing the Springfield facilities as proposed makes financial sense in that it will be the minimum investment for the most gain over the long term. With this model the Forensic Services facilities in Pendleton, Bend, Central Point, and Portland could remain their current sizes but OSP would still be able to increase services and accommodate future expansion, keeping pace with population increases. Investing in built-to-suit new facilities in Springfield is less expensive than remodeling all OSP Forensic Labs to handle the projected growth. Indeed, it would still allow for forensic service expansion in Portland by shifting certain services and training functions to Springfield. In turn, this strategy generates the most utility out of the Portland Medical Examiner and Forensic Services facility before a remodel becomes an absolute necessity.

Facility Size

By combining forensic lab and medical examiner services under one roof, OSP can make use of efficiencies in programming to consolidate certain space needs. Even still, the recommended square footages from the prototype model illustrate a need for an increase in size of nearly six times that of the current facility in order to provide the service levels and staffing targets established for Springfield. This underscores the urgent need for growth in order to bring OSP facilities up to recommended standards.

Site

It would best suit the needs and duties of the Oregon State Police to have Forensic Services and Medical Examiner facilities co-located on a shared site. The location of this OSP facility provides an opportunity for the Forensic Services and Medical Examiner to be close to the University of Oregon. Springfield is poised to become the primary OSP training area for the state, and these disciplines would benefit from recruitment and education partnerships.

Springfield Facility Size Data

Forensic Services Lab + Medical Examiner Site	
Forensic Services Lab	48,016 sf
Medical Examiner	20,625 sf*
Total Building	**68,641 sf**
Developed Site	76,830 sf
Total Site	**217,800 sf (5 acres)**

*Square footage does not include county death investigators. See 6/2/2020 FFA memo for square footage assigned to county death investigators and future scalability.

Springfield Forensic Services Lab & Medical Examiner Estimated Cost

Direct Construction Cost			
Forensic Science Lab & Medical Examiner			
Forensic Services Lab (48,016 sf)		$ 395 / sf	$ 18,966,320
Medical Examiner (20,625 sf)		$ 475 / sf	$ 9,796,875
Site (76,830 sf)		$ 55 / sf	$ 4,225,650
		Sub-Total:	**$ 32,988,845**
Estimated Contingency	15%		$ 4,948,327
Contractor Mark-Ups	19.5%		$ 7,397,748
Proposed Construction Budget	**2020**		**$ 45,334,920**
Soft Costs			
Project Soft Costs	30%		$ 13,600,476
Proposed Project Budget	2020		$ 58,935,396
	2021	(3.5%)	$ 60,998,135
	2022	(4.5%)	$ 63,743,051
	2023	**(4.0%)**	**$ 66,292,773**
	2024	(4.0%)	$ 68,944,483
	2025	(4.0%)	$ 71,702,263

CONCEPTUAL PLAN & COST: CENTRAL POINT

The Central Point Facility Estimated Cost chart to the right takes the square footage areas from the prototype models for the Springfield Area Command, Forensic Laboratory, and Medical Examiner facilities and extrapolates a proposed project budget ROM cost.

Financial Logic

At this point, the significant deficiencies in the current building point to a new building being a potential development strategy. With numerous roof leaks, no LED lighting, non-essential structure, and an extensive list of deferred maintenance, the building has not been improved in 23 years. Facility improvements should be made now, so that deferred maintenance does not continue to add up into a more costly expense later.

With the Central Point facility, Oregon State Police already owns the land via a 2017 transfer from DAS and debt service on the property has a pay-off date in 2021. Therefore, the goal would be to utilize the existing site in order to make the best use of this investment.

Facility Size

The prototype models for Central Point show that a significant increase of square footage is needed beyond the area provided currently. At the existing Central Point facility, the Medical Examiner functions provided are only a small fraction of what is needed. Furthermore, the extent of deficiencies with the Crime Lab points towards a complete re-design of this area being the most effective strategy. The current facility is 23,470 sf, and the proposed facility would double the current size.

Site

The proposed building and site requirements will fit on the current Central Point property. Since Area Command functions need to be built to essential facility standards but the other uses do not, if that section of the building could be portioned off it could result in cost savings. More exploration is needed to determine how a variety of proposed options could fit on the existing site and utilize areas of the existing building. Each option has its own pros and cons.

The site is located within a base flood zone which is considered a Special Flood Hazard Area. Any future development in this zone is subject to limitations and requirements for “Critical Facilities”. Beyond that, operational needs for each program component will affect its position on the site.

Central Point Facility Size Data

Area Command & Dispatch	16,486 sf
Warehouse	8,422 sf
Forensic Services Lab	9,649 sf
Medical Examiner	11,626 sf*
Total Building	**46,183 sf**
Developed Site	58,257 sf
Total Site	**151, 441 sf (3.5 Acres)**

*Square footage does not include county death investigators. See 6/2/2020 FFA memo for square footage assigned to county death investigators and future scalability.

Central Point Facility Estimated Cost

Direct Construction Cost			
Area Command (13,278 sf)		$ 354 / sf	$ 4,700,412
Warehouse (8,422 sf)		$ 291 / sf	$ 2,450,802
Dispatch (3,208 sf)		$ 362 / sf	$ 1,161,296
Forensic Services Lab (9,649 sf)		$ 404 / sf	$ 3,898,196
Medical Examiner (11,626 sf)		$ 485 / sf	$ 5,638,610
Site (58,257 sf)		$ 62 / sf	$ 3,611,934
Demolition (23,470 sf)		$ 16 / sf	$ 375,520
		Sub-Total:	$ 21,836,770
Estimated Contingency	15%		$ 3,275,516
Contractor Mark-Ups	19.5%		$ 4,896,896
Proposed Construction Budget	2020		$ 30,009,181
Soft Costs			
Project Soft Costs	30%		$ 9,002,754
Proposed Project Budget	2020		$ 39,011,936
	2021	(3.5%)	$ 40,377,353
	2022	(4.5%)	$ 42,194,334
	2023	(4.0%)	$ 43,882,108
	2024	(4.0%)	$ 45,637,391
	2025	(4.0%)	$ 47,462,887

CONCEPTUAL PLAN & COST: CENTRAL POINT - ALTERNATE

An alternate scheme proposed for the Central Point facility would remodel the existing buildings and add additional square footage in phases, as shown in the diagrams to the right. Cost savings are achieved by utilizing as much existing infrastructure as possible. This alternate scheme also meets the prototype size recommendations for the facility.

Financial Logic

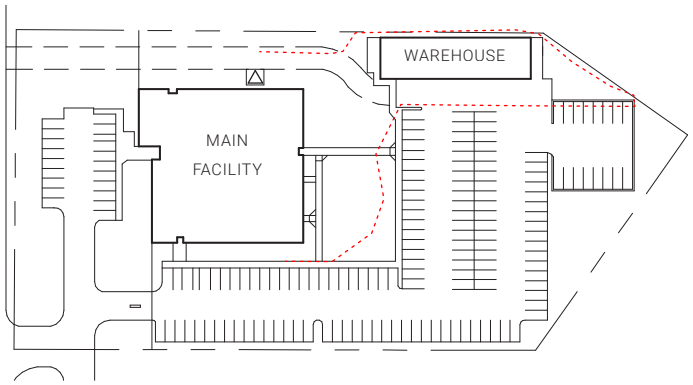
The estimated cost chart on the next page has been adjusted to include renovation costs. The costs per square foot of these categories reflect the anticipated scope of replacing vs. renovating existing building infrastructure. For example, much of the existing structure and electrical system can be utilized, but new HVAC and LED lighting would need to be added.

Facility Size

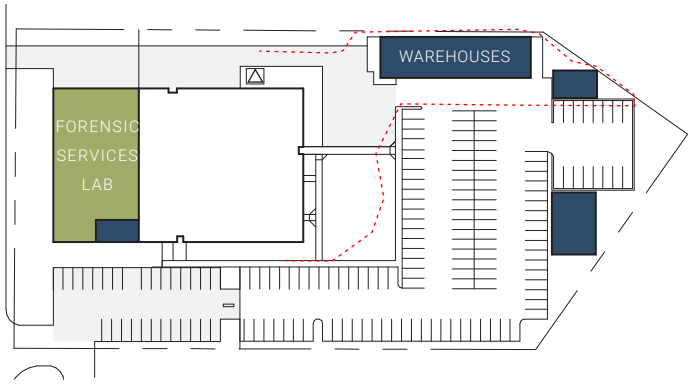
A significant increase of square footage is needed beyond the current building. As shown in the diagrams to the right, it is possible to fit this additional square footage on the existing site. Construction would be carried out in phases in order to minimize disruption to existing facility operations.

Site

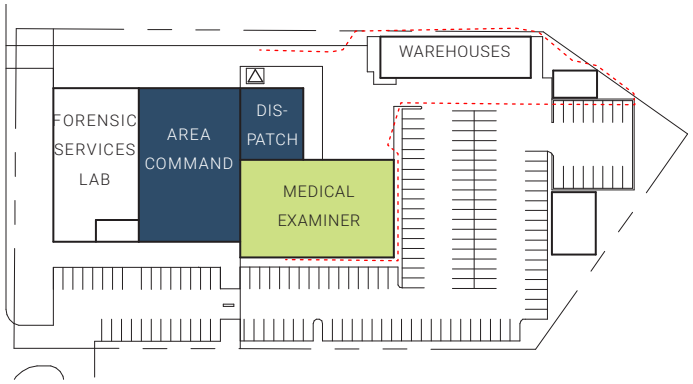
The site is located within a base flood zone which is considered a Special Flood Hazard Area. Any future development in this zone is subject to limitations and requirements for "Critical Facilities". As shown in the option to the right, all building functions except for a small portion of warehouse functions can be sited outside of the Flood Hazard Area. Some sitework will be needed in order for the new design to be functional, including the relocation of public parking and the addition of a service drive.



EXISTING: Main Facility & Support Building



PHASE 1: Remodel & add support warehouses; add Forensic Lab, new lobby, associated sitework



PHASE 2: Remodel Area Command and Dispatch; add Medical Examiner

Central Point Facility Estimated Cost - Alternate

Direct Construction Cost				
Remodel	Area Command (12,498 sf)		$ 221 / sf	$ 2,762,058
	Warehouse (5,144 sf)		$ 187 / sf	$ 961,928
	Dispatch (3,208 sf)		$ 226 / sf	$ 725,008
	Medical Examiner (4,248 sf)		$ 302 / sf	$ 1,282,896
	Sitework (31,602 sf)		$ 12 / sf	$ 379,224
New	Area Command (780 sf)		$ 354 / sf	$ 276,120
	Warehouse A (2,278 sf)		$ 291 / sf	$ 662,898
	Warehouse B (1,000 sf)		$ 291 / sf	$ 291,000
	Forensic Services Lab (9,649 sf)		$ 404 / sf	$ 3,898,196
	Medical Examiner (7,378 sf)		$ 485 / sf	$ 3,578,330
	Sitework (26,655 sf)		$ 62 / sf	$ 1,652,610
			Sub-Total:	$ 16,470,268
	Estimated Contingency (see note)	18%		$ 2,964,648
	Contractor Mark-Ups	19.50%		$ 3,789,808
	Proposed Construction Budget	2020		$ 23,224,724
Soft Costs				
	Project Soft Costs	30%		$ 6,967,417
	Proposed Project Budget	2020		$ 30,192,142
		2021	(3.5%)	$ 31,248,867
		2022	**(4.5%)**	**$ 32,655,066**
		2023	(4.0%)	$ 33,961,269
		2024	(4.0%)	$ 35,319,719
		2025	(4.0%)	$ 36,732,508

05 FACILITY WORK
PACKAGING PLAN

OVERVIEW

To assist the Oregon State Police in identifying operations and maintenance requirements for the proposed construction and/or remodel of the Central Point and Springfield facilities, a high-level analysis was conducted. This analysis outlines the requirements for owning, maintaining, and operating the facilities proposed in Springfield and Central Point as well as recommendations for enhancing OSP's internal Facilities Management function to oversee these new facilities.

Facility management (FM) is "the practice of coordinating the physical workplace with the people and work of the organization. It integrates the principles of business administration, architecture, and the behavioral and engineering sciences."[1] It is an integral component of building ownership and is essential to ensure the appropriate stewardship of public assets. Now that OSP has the ability to own its own facilities, the development of a strategic and comprehensive approach to FM is key to ensuring OSP's facilities are resilient, safe, functional, and efficient. There are distinct roles and responsibilities an FM strategy should include to appropriately preserve the agency's facility-related assets, optimize facility performance, and reduce costs over the life of the facility. These responsibilities include:

Strategy and Planning:
- Strategic Planning
- Space Planning
- Capital Planning
- Cost Analysis

Asset Management:
- Asset Inventory
- Condition Assessments
- Criticality Assessments
- Preventative Maintenance Schedules

Customer Service:
- Furniture assembly/management
- Office tasks (hanging pictures, etc.)
- Office moves and set-up
- Meeting room management

Building Maintenance and Operations:
- Preventative maintenance
- Repairs/replacements
- Deferred maintenance
- Custodial service
- Grounds management
- Energy management
- Security

Project Management:
- Project planning
- Construction management
- Procurement
- Vendor management
- Lease negotiation

[1] Institute of Facilities Management (IFMA)

INDUSTRY BENCHMARKS AND BEST PRACTICES

For the purposes of this analysis, industry benchmarks and best practices were used to identify the specific funding requirements and staffing considerations necessary to provide industry-recommended building maintenance and operations. Additional considerations were identified through conversations with Oregon State Police (OSP) staff during a work session on April 22, 2020.

Recommendations from the Phase One facilities planning efforts were used to perform a high-level analysis of the operations and maintenance requirements for the proposed facility alternatives in Springfield and Central Point. The industry benchmarks utilized include general recommendations for maintenance and repair funding based on a facility's current replacement value as well as operations and maintenance expenditures based on per square foot costs from Coldwell Banker Richard Ellis (CBRE)'s CostLab.

For the purposes of establishing recommended levels of funding for maintenance and repair, the generally accepted minimum level of funding is between 2-4% of a facility's current replacement value.[2] This best practice covers the costs of ongoing preventative maintenance, unscheduled repairs, and asset replacements. Senate Bill 1067 (2017) requires Agencies to include an amount for deferred maintenance, which is at least 2% of the current replacement value of state owned buildings and infrastructure.

To quantify the estimated expenditures for building operations and maintenance and repair, CBRE's CostLab was used to provide benchmark information.[3] CostLab compiles data for facilities of varying types to develop cost models that break down annualized average expenditures into a per-square-foot cost for different types of buildings. Cost models for relevant building types from CBRE's CostLab are summarized in Table 1. These costs are based on an extensive collection of industry averages, adjusted by region and include average costs per square foot (sf) for:

Maintenance and repair:
- Preventative maintenance (PM)
- Unscheduled maintenance
- Repair and replacement of building systems and equipment

Operations:
- Custodial service
- Grounds and associated road maintenance
- Pest control
- Refuse management
- Security
- Telecommunications and utilities, etc.

Recapitalization of assets related to:
- Changes in use or function
- Modernization
- Code compliance, etc.

The estimated expenditures from CostLab represent average levels of maintenance and operations based on industry data for each building type. These models assume levels of expenditures based on the building systems typical of each building type and are useful for benchmarking facility performance and developing estimates for operations and maintenance expenditures for different types of facilities. For example, the expected costs for operating and maintaining a laboratory are expected to be greater than those of a general office building due to the number, type, and cost of specialized systems, the increased utility costs, and other factors.

[2] National Research Council. 1996. Budgeting for Facilities Maintenance and Repair Activities: Report Number 131. Washington, DC: The National Academies Press. https://doi.org/10.17226/9226

[3] CBRE CostLab Data Library, 2020

Table 1: Benchmark Operations and Maintenance Costs per Square Foot

Building Type	Maintenance & Repair			Operations	Recapitalization	Total
	Preventative Maintenance (PM)	Unscheduled Maintenance	Repair/ Replacement			
Office Building	$ 1.13	$ 1.40	$ 2.61	$ 7.04	$ 3.70	**$ 14.74**
Laboratory	$ 2.30	$ 2.67	$ 8.96	$ 11.61	$ 4.77	**$ 30.31**
Warehouse, Temp. Controlled	$ 0.87	$ 0.99	$ 2.59	$ 3.46	$ 1.72	**$ 9.63**
Call Center	$ 1.32	$ 1.61	$ 2.84	$ 10.47	$ 2.43	**$ 18.67**

LEASE VS BUY CONSIDERATIONS

The costs required to maintain and operate a building exist regardless of whether a facility is leased or owned. In a lease model, the costs required to maintain and operate the building are built into the rental rates. As a building owner, OSP will need to dedicate these funds towards specific maintenance and operations activities.

For illustration, the Oregon Department of Administrative Services' (DAS) uniform rental rates for general office space leased throughout the state are compared with the estimated annual maintenance and operations expenditures from CostLab's general office cost model in Table 2. DAS's rates for the 2019-2021 biennium are $1.55 per sf monthly or $18.60 per sf annually for basic office space.[4] Furthermore, the DAS uniform rent rate in 2021-23 will be $1.90 per sf monthly, or $22.80 per sf annually.

The lease vs. buy cost analysis is complicated and specific to the facility under consideration. A detailed lifecycle cost analysis and cost/benefit discussion is required to understand all cost factors (opportunity costs, market value, purchase price, interest, inflation, depreciation, financing strategy, necessary improvements, service levels, etc.) included in the lease vs. buy decision. However, in general, when compared with the benchmark costs from CBRE for office space ($14.74/sf), the uniform rental rate ($18.60/sf) accounts for a similar level of funding for maintenance and operations activities with additional charges for costs such as administrative overhead and debt service not included in the CostLab cost model.

The charges for facilities leased through other entities vary widely based on major factors such as market costs, availability, size, facility type (lab vs. office, etc.), and tenant improvements. For example, the leased rates for OSP's current facilities range anywhere from below the uniform rental rate to between $20.00/sf and $30.00/sf annually for larger facilities. Two leased facilities have annual rates greater than $40.00/sf. The level and quality of services received in different lease scenarios will vary greatly as well.

Understanding that the costs to operate and maintain OSP's facilities at the appropriate levels are being spent regardless of a lease or buy scenario, there are other important factors that should inform OSP's decision for facilities in Central Point and Springfield. These factors specifically have to do with OSP's need for purpose-built facilities that are preserved over time and enhance the Agency's ability to deliver service. In terms of Facilities Management, the benefits of OSP owning facilities include:

- The ability to ensure that appropriate levels of maintenance are occurring (something that is difficult to influence in a lease model),
- Shift to a proactive facilities maintenance and repair model,
- Flexibility and control over decisions to invest in facility repairs and upgrades that preserve assets and maximize value,
- Long-term accountability for the lifecycle costs/performance of the building,
- Ability to mitigate and control facility-related operational risks (for example, choosing to invest in back-up or redundant systems to ensure essential operations continue during emergency events, etc.)

[4] From the 2019-2021 Pricelist for DAS Enterprise Asset Management Services

Table 2: Comparison of Lease Rate vs. Estimated O&M Expenditures for General Office Space

	"Lease" Uniform Rental Rate: $18.60/sf	"Own" Estimated O&M Expenditures: $14.74/sf
Costs Included	• Building maintenance • Custodial service • Utilities • Security • Recycling • Landscaping • Administrative overhead • Debt service • Recapitalization	• Building maintenance • Repairs and replacements • Custodial service • Utilities • Security • Recycling • Landscaping • Recapitalization
Costs Not Included	• Lessee personnel costs for lease management • Specialized operations and maintenance needs (including 24/7 operations) • Tenant improvements	• Debt service for upfront capital investment • Personnel costs for Agency Facilities Management administration

Note: In an "own" scenario, the costs for debt service and overhead still exist but they aren't captured by CostLab's industry benchmarks for O&M costs/sf. Since debt service can vary widely based on specific financing details, which are unknown to us at this point, we haven't tried to include those costs in the "own" column.

OPERATIONS AND MAINTENANCE FUNDING

Dedicated funding in addition to a strategic and data driven approach to facilities management is key to OSP preserving its facility-related assets and maximizing the value of those assets over the duration of their expected life. Under-investing in facilities maintenance can lead to a backlog of deferred maintenance, aging facilities, loss of service or function, and increased costs over the life of the building. As an example of how deferred maintenance adds up, the deferred mainenance for Central Point will be $1.9 million (including project overhead) by the end of 2023, as indicated by Facility Condition Assessments (FCAs) completed by Faithful + Gould in March 2020. The following sections outline the recommended funding levels for the proposed programs in more detail.

Existing Central Point Facility

OSP currently owns the Central Point facility, consisting of an approximately 25,000 sf office and 6,000 sf shop space. The estimated annual expenditures for these existing facilities were determined based on CostLab data for preventative maintenance, unscheduled maintenance, and operations as well as the estimated capital investments needed over the next 10 years based on Facility Condition Assessments completed by Faithful + Gould in March 2020.

The expected annual expenditures for the office space include $28,000 for preventative maintenance, $35,000 unscheduled maintenance, and $175,000 for operations (Figure 1) in addition to the recommended capital expenditures by year for repairs and replacement from the March 2020 FCA.

The same information is presented for the existing shop space in Figure 2. Expected annual expenditures include $7,000 for preventative maintenance, $7,800 for unscheduled maintenance, $46,000 for operations, and the projected capital expenditures by year from the March 2020 FCA.

Proposed Central Point Facility

Utilizing information prepared as part of the facilities planning process for Central Point, the proposed program includes the construction of a purpose-built building on the site of the current Central Point facility. The recommended program includes:

- 13,278 sf Area Command
- 8,422 sf Warehouse
- 3,208 sf Dispatch
- 9,649 sf Forensic Service Lab
- 11,626 sf Medical Examiner

The annual average expenditures for the Central Point facility estimated based on CostLab data includes approximately $77,300 for preventative maintenance; $91,000 for unscheduled maintenance; $263,300 for repair and replacement of assets; and, $412,300 for building operations. The annual average expenditures are shown in Figure 3 next to the expenditures for the existing Central Point facility.

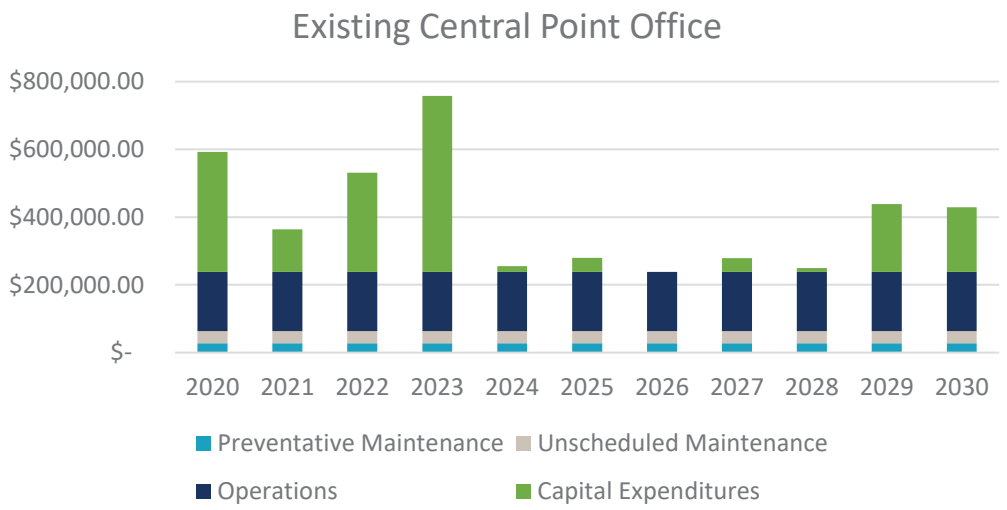
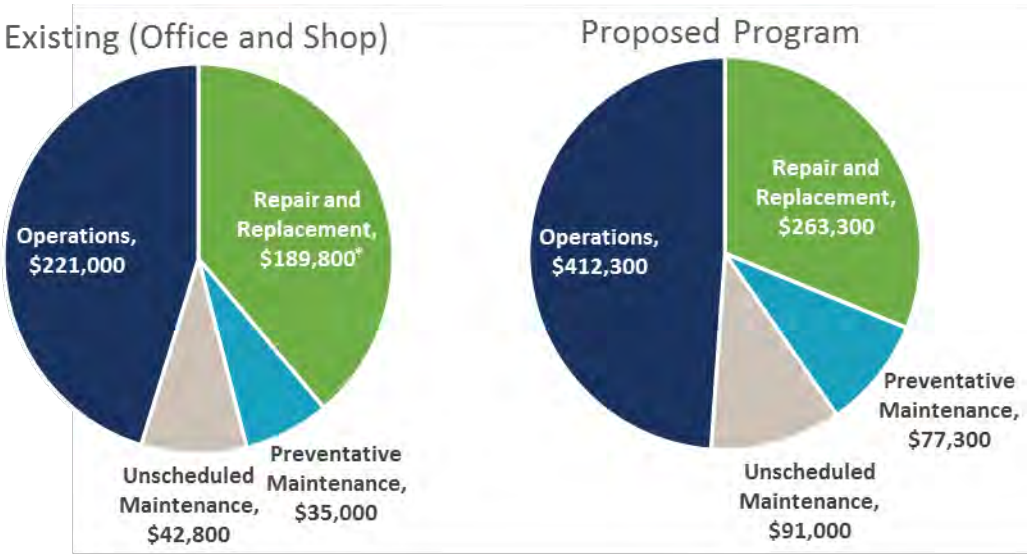


Figure 1: Annual Estimated O&M Expenditures for Existing Central Point Office

Figure 2: Estimated Annual O&M Expenditures for Existing Central Point Shop



*Annual Average from 2020 FCA Reports

Figure 3: Estimated Annual Central Point O&M Expenditures

Proposed Springfield Facility

The current OSP facilities in Springfield are leased, therefore, only the operations and maintenance requirements for the proposed program were estimated. The proposed Springfield program includes recommendations for two separate facilities:

Area Command Site, including:

- 10,776 sf Area Command
- 6,400 sf Warehouse

Forensic Services Lab + Medical Examiner Site, including:

- 48,016 sf Forensic Services Lab
- 20,625 sf Medical Examiner

The annual average expenditures estimated for the Springfield Area Command Site includes $18,200 for preventative maintenance; $22,200 for unscheduled maintenance; $43,700 for repair and replacement of assets; and, $94,000 for building operations (Figure 4).

The annual average expenditures estimated for the Springfield Forensic Services Lab + Medical Examiner Site include approximately $166,700 for preventative maintenance; $194,800 for unscheduled maintenance; $603,400 for repair and replacement of assets; and, $744,700 for building operations (Figure 5).

Budgeting Recommendations:

OSP should specifically budget in line with industry recommendations and estimated operations and maintenance expenditures for the proposed Central Point and Springfield facilities. Assuming the newly constructed facilities include warranties for major equipment and systems, the expected maintenance and repair requirements for this initial warranty period will begin lower than the projected annualized average expenditures and rise over time as OSP takes responsibility for repairs and replacements. Operations costs will remain relatively consistent over time.

For the initial warranty period, it is recommended that OSP begin by budgeting the minimum level of resources for maintenance and repair based on general guidelines of 2% current replacement value per year. Dedicating maintenance and repair funding in line with this level will cover costs for ongoing preventative maintenance and provide dedicated funding for unscheduled maintenance tasks outside of warranty coverage. Operations costs for these new facilities should be budgeted at the estimated annual average level described above. The budgeting recommendations below do not include costs associated with the additional staff time recommended in the following section.

After the initial warranty period, OSP should aim to budget maintenance and repair between the recommended levels of 2-4% replacement value to cover the estimated expenditures for preventative maintenance, unscheduled maintenance, and ongoing repairs and replacements. Capital costs for repair and replacement should be determined based on ongoing monitoring of asset condition/ performance and based on a rolling five-year capital plan informed by maintenance history, expected end of service life, and equipment repair/ replacement costs.

Specific decisions during project design will have a significant impact on the lifecycle costs of maintaining and operating both facilities. These recommendations are for budgetary purposes and should be refined once the design for each facility is revisited.

[5] Current Replacement Value (CRV) based on 2020 direct construction cost estimates

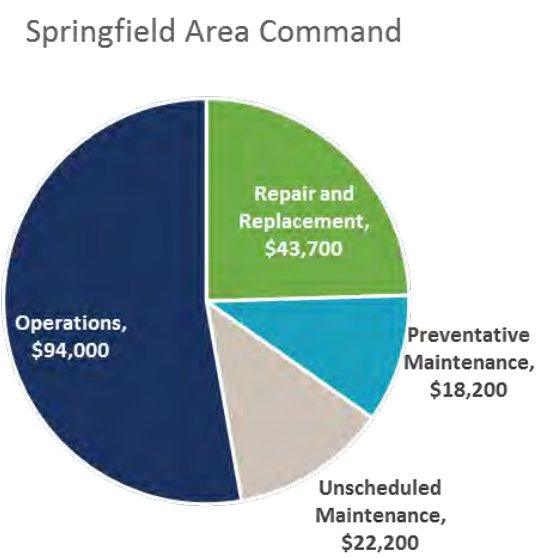


Figure 4: Estimated Annual Springfield Area Command O&M Expenditures

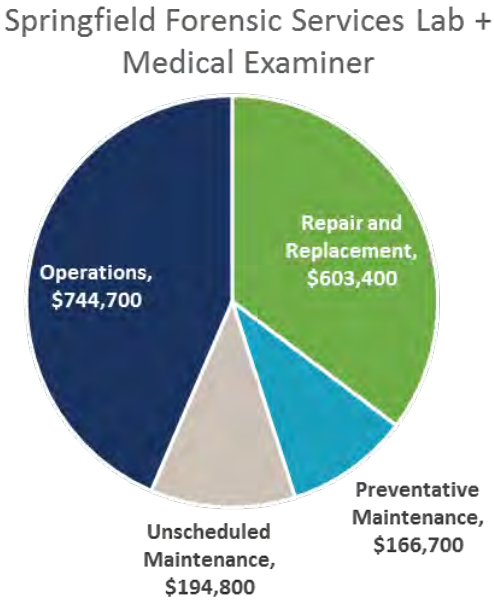


Figure 5: Estimated Annual Springfield Forensic Services Lab + Medical Examiner O&M Expenditures

Proposed Central Point Facility:	Initial Annual Budget	Long-Term Funding
Operations	$412,300	TBD based on data from initial period
Maintenance, including: • Preventative Maintenance • Unscheduled Maintenance	$364,600[5]	Costs based on facility-specific maintenance schedules, historic data and in line with annualized expenditure estimates from CostLab
Repair and Replacement		Develop specific 5-year capital expenditures plan to account for repair/replacement

Proposed Springfield Area Command:	Initial Annual Budget	Long-Term Funding
Operations	$94,000	TBD based on data from initial period
Maintenance, including: • Preventative Maintenance • Unscheduled Maintenance	$111,250[5]	Costs based on facility-specific maintenance schedules, historic data and in line with annualized expenditure estimates from CostLab
Repair and Replacement		Develop specific 5-year capital expenditures plan to account for repair/replacement

Proposed Springfield Forensic Services Lab + Medical Examiner:	Initial Annual Budget	Long-Term Funding
Operations	$744,700	TBD based on data from initial period
Maintenance, including: • Preventative Maintenance • Unscheduled Maintenance	$591,250[5]	Costs based on facility-specific maintenance schedules, historic data and in line with annualized expenditure estimates from CostLab
Repair and Replacement		Develop specific 5-year capital expenditures plan to account for repair/replacement

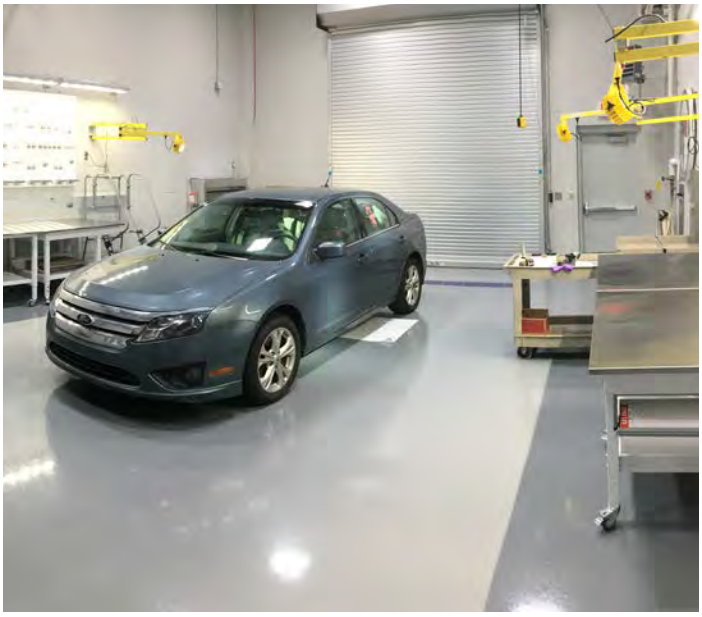
FACILITY MANAGEMENT STAFFING

As building owners, OSP needs a strategy to provide all necessary services related to best practice FM. The current Facilities Department within OSP consists of 1.3 full-time equivalent (FTE) staff. These staff currently provide facility-related coordination for all the agency's leased facilities and one owned facility. They respond to facility-related issues and coordinate response between OSP, landlords, and vendors. These individuals are located in Salem and rely on staff in buildings around the state to coordinate specific activities within their facilities.

Staffing Recommendations:
The addition of three owned facilities will require additional staff capacity from OSP's Facilities Department to provide the necessary level of O&M coordination. As the responsible party for these facilities, OSP's Facilities Department will need to manage and coordinate, at minimum, the following tasks:

- Warranty period coordination
- Development of comprehensive operations and maintenance schedules for all three new facilities
- Coordinate routine facility inspections and formal FCAs
- Procure and manage service contracts for vendors
- Track and manage operations and maintenance expenditures
- Project management for minor projects
- Customer request intake

To accommodate these tasks, it is recommended that OSP add an additional 0.5 FTE to the Facilities Department.



Long-Term Considerations:

If OSP determines to continue a trend towards building and managing purpose-built facilities around the state, there are several considerations that should be evaluated to develop a comprehensive approach to providing cost efficient and effective Facilities Management across the state. These factors include:

- The addition of additional Facilities personnel,
- Development of a tailored service delivery model for providing appropriate levels of operations and maintenance service across the state,
- Reorganization/restructuring of the Facilities Department to expand in-house capabilities/ capacities in alignment with the service delivery model
- Implementation of a Computerized Maintenance Management System (CMMS) to track and manage critical facilities-related data
- Development of a formal agency asset management strategy

It is recommended that the formal agency asset management strategy includes policies and procedures, a complete inventory of facility-related assets, a formal condition assessment program, a criticality assessment, risk-based decisions regarding maintenance strategy and service levels, and capital expenditure projections. All of these considerations will work to ensure that OSP's facilities are resilient, safe, functional, and efficient for years to come.

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