

**United States Department of Justice
Office Justice Programs
National Institute of Justice
FY 2011 Paul Coverdell Forensic Science
Improvement Grant**

**Forensic 360° Digital Laser
Imaging Project**

**Forensic Evidence Division
Portland, Oregon Police Bureau**

U.S. Department of Justice, Office of Justice Programs, National Institute of Justice
FY 2011 Paul Coverdell Forensic Science Improvement Grants Program
City of Portland, Oregon Police Bureau
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Program Abstract

The Portland Police Bureau is the largest police agency in the state of Oregon. The Bureau, with over 900 sworn members and 300 non-sworn members, serves a metropolitan population of 583,776. For calendar years 2007, 2008, and 2009, the City of Portland averaged 3,417 Part 1 violent crimes per year, nearly one third of all violent crimes in the state.

Project goals

The Bureau's organizational goals include developing and encouraging employees and improving work processes. To this end the Bureau's Forensic Evidence Division (FED) has begun converting its crime scene photography from 35 mm film to digital imaging technology.

Strategies

Phase one of the conversion is to purchase digital cameras for bureau members in the field and a state of the art digital management and print ordering system. The new system is expected to halve the time it takes to make photographic evidence available to the bureau's stakeholders (police officers, detectives, District Attorneys and a variety of other agencies that rely on FED for photographic evidence). This project is made possible with the award of FY 2010 Paul Coverdell Forensic Science Improvement Grant funding.

Phase two of the conversion is possible with grant funding for the purchase of a high resolution (360-degree) panoramic digital laser imaging system with three-dimensional laser scanning and digital mapping capabilities. The system will capture major crime scenes digitally,

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take measurements of the entire scene in minute detail and create a three-dimensional walk-through of the scene as first responders found it.

Deliverables

Current processes for measuring and diagramming a scene are antiquated, unreliable and work intensive. Under current conditions it takes approximately four hours to accurately diagram and photograph a major crime scene. A court presentation takes an additional 40 to 80 hours. Projections show a decrease in processing time of approximately 60 percent by transitioning to a high resolution panoramic digital laser imaging system. Investigators will be able to accurately review major crime scenes after the fact. Criminalists will be able to review the crime scene and conduct post event forensic analysis with three-dimensional representation. Measurements may be made months, even years, after the crime was committed. Detectives and prosecutors will be able to examine the scene and have close up examinations of the evidence from almost any angle or viewpoint.

In order to achieve the Bureau's goal, the City of Portland is requesting \$172,383 in funding from the FY 2011 Paul Coverdell Forensic Science Improvement Grant Program.

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Introduction

The Portland Police Bureau is the largest police agency in the state of Oregon, serving a population of 583,776.¹ The Bureau has over 900 sworn officers and nearly 300 non-sworn staff. The Bureau's mission is to reduce crime and the fear of crime by working with all citizens to preserve life, maintain human rights, protect property and promote individual responsibility and community commitment. The organizational goals are to develop and encourage employees and to continually improve work processes.

In conjunction with these goals, the Bureau's Forensic Evidence Division (FED) remodeled their lab space in 2006 and purchased state of the art fingerprinting workstations, which included fuming hoods, down-flow workstations and vacuum chambers. With the assistance of the FY 2008 Paul Coverdell Forensic Science Improvement Grant Program the FED obtained advanced graphics computer workstations for enhancing developed latent prints, obtained much needed training for staff and achieved Crime Scene Investigator certifications for their crime scene officers (criminalists) through the International Association for Identification (IAI). The FY 2010 Paul Coverdell Forensic Science Improvement Grant Program will improve FED's work processes by purchasing a digital evidence archive system and converting all crime scene processing from 35 mm film to digital imaging technology.

Seventeen FED criminalists specialize in processing crime scenes, collecting evidence, examining evidence for latent prints and identifying latent prints. They use a variety of photographic and photo processing equipment to assist in the development, preservation and

¹ 2010 Census

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presentation of physical evidence. They provide expert testimony in courts of law regarding fingerprint identification.

The Forensic Evidence Division is also staffed with two photographic reproduction specialists. They provide vital photographic, digital imaging and audio enhancement services and training to bureau members and other local, state and national law enforcement agencies. The specialists process photographic film and prints to be used as evidence, develop and apply techniques for digital image and other media enhancement and maintain security of source materials.

NIJ Grant Successes

In 2008, the Forensic Evidence Division received a Paul Coverdell Forensic Science Improvement Grant. Grant funding accomplished three goals: Staff training and certification; equipment/software upgrades; and reduction of a backlog of unidentified latent fingerprints. Training included basic and advanced fingerprint identification techniques, court testimony training, International Association for Identification (IAI) Crime Scene Investigator certification training and Forensic Photoshop classes. The Division's criminalists were certified as IAI Crime Scene Investigators. Advanced graphic computers with Adobe Photoshop CS4 were purchased to enhance latent prints before entry into the Automated Fingerprint Identification System (AFIS). The Division reduced their backlog of previously unidentified latent prints by nearly 18 percent by enhancing and rerunning 428 of the 2,445 previously unidentified latent prints. Fifteen identifications were made from these cases, one of which was a homicide investigation. The Division continues to work on the backlog because of the availability of these computers. New latent prints will have the best possible chance of producing identifications.

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At this time, the Bureau is converting to digital photography with the assistance of the FY 2010 Paul Coverdell Forensic Science Improvement Grant. The conversion consists of purchasing digital cameras for bureau members in the field and a state of the art digital management and print ordering system. The project is in the contract finalization phase. When fully implemented, the digital management and print ordering system is expected to halve the time it takes to make photographic evidence available to the bureau's stakeholders (police officers, detectives, District Attorneys and a variety of other agencies that rely on FED for photographic evidence).

Crime Statistics

For calendar years 2007, 2008, and 2009, the City of Portland averaged 3,417 Part 1 violent crimes per year. During the same time period, the State of Oregon reported an average of 10,089 Part 1 violent crimes per year. One third of all violent crime in the state occurred in the City of Portland.²

Program Objectives

Current Operations

The Forensic Evidence Division processes major crime scenes (homicides, aggravated assaults and officer-involved shootings) in a seven stage methodology. Stage 1: Evaluate and assess needs. Stage 2: Document scene. Stage 3: Photograph and videotape entire scene. Stage 4: Select evidence. Stage 5: Photograph and videotape selected evidence with placards. Stage 6: Turn crime scene over to detectives to diagram and record location of evidence in a

² See Appendix A, *Crime in the United States; Uniform Crime Reporting Program 2007, 2008 & 2009*

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two-dimensional format using tape measures and sketch pads. Stage 7: Retake possession of crime scene in conjunction with detectives to collect evidence.

Statement of Problem

The forensic community faces challenges because of greater public awareness of forensic science with the advent of television crime shows and true crime shows. There is an increased demand for forensic evidence in police investigations. This, in turn, has significantly increased workloads for crime laboratories. The public and juries are more expectant of technology-based evidence to explain and demonstrate how a crime occurred. As a result, it has become incumbent upon law enforcement to stay current with technology.

The Bureau's process for measuring crime scenes hasn't changed since the 1950's. This is done by at least two or more investigators taking numerous measurements and notes. The documentation process may take two to 12 hours. Accuracy of the final diagram and the spatial distance and relation of the objects in the scene are open to debate due to not having a reproducible measureable image of the actual scene. After a crime scene has been diagrammed and photographed investigators begin to go through it and move items, which then make it impossible to determine original spatial relationships of evidence. Still photographs may show location but cannot provide actual measurements. Also, an item may be considered of no evidentiary value while processing only to be needed later.

Investigators spend several hours inputting the information into a computer-aided drawing (CAD) program in order to create a two-dimensional diagram of the scene. The accuracy of the diagram may be challenged in court if inaccurate measurements were taken or if measurements of certain items were not taken. There is no way to forensically verify the

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information. By their very nature the two-dimensional scene diagrams generated from manual measurements cannot adequately depict the sometimes complicated nature of the actual three-dimensional crime scenes. Most diagrams do not include z-coordinates, which show the height of an item from the ground. This may be an issue in court if the height of counters, window sills, beds or other items at the scene are called into question.

Another programmatic concern is the lengthy process of creating a video compilation walk-through of the crime scene. It takes an average of 40 to 80 hours, which includes reviewing footage and splicing shots together in a coherent format. The criminalist may go back to the scene and reshoot details after the fact to add more detail and information to the video walk-through.

Program Design

The Forensic Evidence Division conducted an internal needs assessment in 2008, and determined a migration to digital imaging was warranted. The FY 2010 Paul Coverdell Forensic Science Improvement Grant allows for the first phase of the program design with digital cameras for bureau members in the field and a state of the art digital management and print ordering system. The second phase is to preserve major crime scenes and allow for full re-creation of the location and spatial relationships between the items at the scene. This will be accomplished with a high resolution (360-degree) panoramic digital laser imaging system with three-dimensional laser scanning and digital mapping capabilities. The system will take millions of highly accurate measurements in a fraction of the time of two-dimensional mapping. The result is a very detailed and interactive three-dimensional representation of crime scenes.

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Investigators will be able to accurately review major crime scenes after the fact. Criminalists will be able to review the crime scene and conduct post event forensic analysis with three-dimensional representation. Measurements may be made months, even years, after the crime was committed. Detectives and prosecutors will be able to examine the scene and have close up examinations of the evidence from almost any angle or viewpoint.

System Requirements

The ideal high resolution (360-degree) panoramic digital laser imaging system captures crime scene images in indoor and outdoor situations known as High Dynamic Range photographs. This type of photography preserves details in highlights and shadows, creating digital images with natural contrast. A high contrast scene may be photographing brightly lit outdoor scenery through a door or window or taking pictures of shaded subjects on a sunny day. Similar to our digital camera requirements, the high resolution panoramic digital laser imaging system must have broad ISO sensitivity and super low noise performance, which will offer photographic opportunities in very low light conditions.

Due to the possibility of crime scene locations being in out of the way places with no access to power sources the system must be able to operate on internal long-life batteries. The system must be protected against dust and moisture due to weather and other environmental factors and must be able to compensate for uneven terrain to level the scan appropriately. The system must have demonstrated use in a forensic science capacity and have proven court validity.

The ideal high resolution panoramic digital laser imaging system contains a laser scanner capable of taking multiple scans up to a 300-yard distance, which is essential for collecting

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accurate measurements. The system must contain a High Definition Range (HDR) camera for a digital photographic representation of the scene. The laser must be eye-safe for both the user and the public if the crime scene is in an open location. The system will allow for the creation of three-dimensional images very shortly after capture, map true color into the scan data for accurate representation and allow for after capture measurement of items within the scene in both horizontal and vertical (x-, y- and z-) coordinates. A 360-degree spherical scanner will capture an entire room including the ceiling.

The system must come with software that will stitch multiple scans from the crime scene together to create a point cloud style of presentation. Detectives will be able to verify witness testimony as to their location at the scene and what they could view from their reported vantage point. Point cloud presentation software is also utilized to create walk-through presentations for court testimony.

The software package must include forensic investigation measuring capability for all captured images and data, which allows investigators to verify crime scene measurement if challenged. It will also enable them to measure distance and spatial relationship of items not previously thought of as having evidentiary value.

The International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC) have created a standard used by testing and calibration laboratories known as ISO/IEC 17025. It is the basis for accreditation from an accreditation body and gives direction for quality assurance, quality control and competence of testing methodology. In order to consistently produce valid results the high resolution panoramic digital laser imaging system will need to comply with ISO/IEC 17025 requirements.

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Project Management

Capabilities and Competencies

The FED Technical Coordinator will be designated as the grant program manager for the grant period. The coordinator will be responsible for the day-to-day decisions regarding the grant including purchasing requirements, scheduling training sessions and lab coverage and writing the revised Standard Operating Procedures for the Division and Bureau to reflect the new technology. The current coordinator has 18 years as a non-sworn bureau member; a Bachelors of Science degree from Southern Oregon State College; 12 years as an Identification Technician and four years as an Identification Technologies Coordinator for the Forensic Evidence Division. The FED sergeant has 18 years of law enforcement experience; 10 as a sworn PPB member; and four years as a sergeant with eleven years working in and around the forensic science field. The division is under the direction of the FED Captain. The current captain has 32 years experience in law enforcement, 28 years as a sworn bureau member. The captain has a Bachelors of Science degree in Administration of Justice and has been a captain for seven years, the last three in FED.

Program Implementation

The Forensic Evidence Division identified several vendors that may fit the requirements for the project. In order to get the best possible product and be within budget and the 12-month grant period the Bureau will conduct a Request for Information (RFI) during the months prior to grant approval. This will enable the City of Portland to have a thorough understanding of the products available. The Forensic Evidence Division will have a full statement of work for inclusion in a Request for Proposal (RFP) two months after grant award if a sole source vendor is not in the best interest of the project.

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The fourth month of the project will see the RFP close and vendor selection begin. The contract process will be conducted during the fifth and sixth months of the grant. By the end of the seventh month, equipment purchase and training will be scheduled. The grant program manager will update the Bureau and Division Standard Operating Procedures (SOPs) criteria for using the new system. During the remaining months of the grant the usage requirements will be flexible so the staff may obtain adequate experience and familiarity with the high resolution panoramic digital laser imaging system.

Training

Division training for the high resolution panoramic digital laser imaging system will be law enforcement forensic specific and provided by the selected vendor. The FED personnel expense for the training will be covered by existing General Fund dollars from the Bureau's budget.

Expected Results

Impact/Outcomes and Evaluation

The high resolution panoramic digital laser imaging system will increase FED's timeliness in diagramming measurements and crime scene photography. Under current conditions it takes approximately four hours to accurately diagram and photograph a major crime scene. The process of creating a court presentation takes an additional 40 to 80 hours. Projections show a decrease in processing time of approximately 60 percent by transitioning to a high resolution panoramic digital laser imaging system. Output of critical photographic evidence may be accomplished within minutes of data capture.

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A FED representative spoke with law enforcement agencies that use high resolution panoramic digital laser imaging systems similar to their desired system. The Cincinnati Police Department, the Albuquerque Police Department and the Washington, D.C. Police Department use the systems to primarily capture homicides and officer-involved shooting crime scenes. They all reported excellent time savings for recreating crime scenes and video walk-throughs are no longer needed due to the point cloud systems capabilities. Their work is done more efficiently and in a timelier manner with a larger amount of captured data.

The FED will provide a higher standard of service to their stakeholders with the laser scanning equipment's accurate measurements as they will have the ability to review and measure items as if the scene were still intact.

Plan for Collecting Data for Performance Measures

The grant program manager will work with criminalists in order to assess the improvement to quality and timeliness of forensic services. The following will be measured:

1. Time savings to create a three-dimensional walk-through of a crime scene. This data will be compared to the time it currently takes to create a two-dimensional walk-through.
2. Train eight investigators in the use of the system. Training attendance forms will be completed for all training associated to the grant and kept on file both in the grant file and the Training Division of the Bureau.
3. The FED project manager will generate two semi-annual progress reports that demonstrate the Performance Measures. The City of Portland's Office of Management and Finance will complete the online Quarterly Financial Status Reports on behalf of the Bureau. All performance measure data and grant-related documents will be kept for a

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minimum of three years after the close of the grant period and be available for review as required by the Office of Justice Programs 2009 Financial Guide.

Sustainability

There are on-going costs for the ideal high resolution panoramic digital laser imaging system's maintenance, which runs between ten and twenty percent of the original system price. The Bureau is prepared to meet those costs to ensure the system is properly maintained and meets calibration and quality assurance standards. Additional costs are associated to maintaining training accreditation for new criminalists. The Bureau is also prepared to maintain the level of training required to maintain competency on the system.

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APPENDIX A**Part 1 Violent Crimes in the State of Oregon and City of Portland by Year**

Part 1 Violent Crimes in Oregon by Year

2007

Oregon estimated population 3,747,455

Murder	Forcible Rape	Robbery	Aggravated Assault	Total Part 1 Violent Crimes
73	1,255	2,862	6,587	10,777

2008

Oregon estimated population 3,790,060

Murder	Forcible Rape	Robbery	Aggravated Assault	Total Part 1 Violent Crimes
82	1,156	2,641	5,868	9,747

2009

Oregon estimated population 3,825,657

Murder	Forcible Rape	Robbery	Aggravated Assault	Total Part 1 Violent Crimes
85	1,168	2,461	6,030	9,744

Part 1 Violent Crimes in Portland by Year

2007

Portland estimated population 538,133

Murder	Forcible Rape	Robbery	Aggravated Assault	Total Part 1 Violent Crimes
22	280	1,289	2,110	3,701

2008

Portland estimated population 553,023

Murder	Forcible Rape	Robbery	Aggravated Assault	Total Part 1 Violent Crimes
26	250	1,132	2,037	3,445

2009

Portland estimated population 560,908

Murder	Forcible Rape	Robbery	Aggravated Assault	Total Part 1 Violent Crimes
19	252	1037	1797	3,105

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APPENDIX B

List of Current and Past NIJ Awards

NIJ FY10 Coverdell Forensic Science Improvement Grant Program; #2010-CD-BX-0083

NIJ FY10 Solving Cold Cases with DNA; #2010-DN-BX-K040

NIJ FY08 Solving Cold Cases with DNA; #2008-DN-BX-K414

NIJ FY08 Coverdell Forensic Science Improvement Grant Program; #2008-CD-BX-0077

APPENDIX C

FY 2011 Coverdell Forensic Science Improvement Grants Program

Attachment: External Investigations

The "Certification as to External Investigations" that is submitted on behalf of the applicant agency as part of this application certifies that—

A government entity exists and an appropriate process is in place to conduct independent external investigations into allegations of serious negligence or misconduct substantially affecting the integrity of the forensic results committed by employees or contractors of any forensic laboratory system, medical examiner's office, coroner's office, law enforcement storage facility, or medical facility in the state that will receive a portion of the grant amount.

Prior to receiving funds, the applicant agency (that is, the agency applying directing to the National Institute of Justice) must provide—for each forensic laboratory system, medical examiner's office, coroner's office, law enforcement storage facility, or medical facility that will receive a portion of the grant amount—the name of the "government entity" (or entities) that forms the basis for the certification. Please use the template below to provide this information. (Applicants may adapt this template if necessary, but should ensure that the adapted document provides all required information.)

IMPORTANT NOTE: If necessary for accuracy, list more than one entity with respect to each intended recipient of a portion of the grant amount. For example, if no single entity has an appropriate process in place with respect to allegations of serious negligence as well as serious misconduct, it will be necessary to list more than one entity. Similarly, if no single entity has an appropriate process in place with respect to allegations concerning contractors as well as employees, it will be necessary to list more than one entity.

Additional guidance regarding the "Certification as to External Investigations" appears in the "Eligibility" section of the program announcement for the FY 2011 Coverdell program.

Name of Applicant Agency (including Name of State or Unit of Local Government):

City of Portland, Oregon Police Bureau

Date: 5/11/11

Name of any forensic laboratory system, medical examiner's office, coroner's office, law enforcement storage facility, or medical facility that will receive a portion of the grant amount

Existing government entity (entities) with an appropriate process in place to conduct independent external investigations

1. PPB Forensic Evidence Division

PPB Internal Affairs Division

2. _____

City of Portland Independent Police Review Board

APPENDIX C, Continued

FY 2011 External Investigations Attachment (continued)

Name of Applicant Agency: City of Portland, Oregon Police Bureau

3. _____ Multnomah County District
Attorney's Office

4. _____ State of Oregon Department of
Justice

5. _____

6. _____

7. _____

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Budget Detail

A. Personnel: Not applicable

B. Fringe Benefits: Not applicable

C. Travel: Not applicable

D. Equipment: **\$106,525.00**

<u>Item</u>	<u>Computation</u>	<u>Cost</u>
Laser scanning system	\$102,375.00 x 1 each	\$102,375.00
Shipping	550.00 x 1 each	550.00
Forensic Data Collector	3,600.00 x 1 each	3,600.00

E. Supplies: **\$33,338.00**

<u>Item</u>	<u>Computation</u>	<u>Cost</u>
Survey software	\$8,400.00 x 2 each	\$16,800.00
Publisher software	5,665.00 x 1 each	5,665.00
Distance meter	799.00 x 1 each	799.00
Target package	4,705.00 x 1 each	4,705.00
Tripod and leveling stands	1,569.00 x 1 each	1,569.00
Battery charger and adaptors	670.00 x 1 each	670.00
Power supply and cables	655.00 x 1 each	655.00
External lithium-ion battery	950.00 x 1 each	950.00
Charging stations	1,525.00 x 1 each	1,525.00

F. Construction: Not applicable

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G. Consultants/Contracts: **\$32,520.00**

<u>Contract Fees:</u>	<u>Computation</u>	<u>Cost</u>
System Training Contract	\$2,940.00 x 8 each	\$23,520.00
Scanning System Maintenance and Support Contract during the grant period	5,000.00 x 1 each	5,000.00
Survey software Maintenance and Support Contract during the grant period	4,000.00 x 1 each	4,000.00

H. Other Costs: Not applicable

I. Indirect Costs: Not applicable

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Budget Summary

<u>Budget Category</u>	<u>Amount</u>	<u>Amount Available</u>
A. Personnel Costs:	- 0-	-
B. Fringe Benefits:	- 0-	-
C. Travel:	- 0-	-
D. Equipment:	\$106,525	-
E. Supplies:	33,338	-
F. Construction:	- 0-	-
G. Consultants/Contracts:	32,520	-
H. Other Costs:	- 0-	-
I. Indirect Costs:	- 0-	-
Total Project Costs:	\$172,383	-
Federal Request:	\$172,383	-
Non-Federal Amount:	- 0 -	-

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Budget Narrative

Section A: Personnel (\$0) There are no personnel costs associated with this grant request.

Section B: Fringe Benefits (\$0) There are no Fringe Benefits costs associated with this grant request.

Section C: Travel (\$0) There are no travel costs associated with this grant request.

Section D: Equipment (\$106,525) This expense will allow for the purchase and shipping of the High Dynamic Range (HDR) photographic three-dimensional laser scanning system and computer hardware to upgrade the division's technological capacity and functionality. The HDR spherical camera with three-dimensional laser scanner is an eye-safe measurement tool, which contains a high-accuracy laser scanner capable of measuring thousands of discrete point measurements per second. Each point within 50 meters of the scanner will be accurate to 6 millimeters (quarter inch) or better. The scanner's range is up to 300-yards depending on the reflectivity of the environment. The device captures a 360-degree x 270-degree photograph and measurement of the scene.

The Equipment expense also includes the purchase of a Forensic Data Collector viewing station so that data generated by the three-dimensional laser scanning system may be viewed in the field and shared with investigators and prosecutors in a timely manner.

Section E: Supplies (\$33,338) This expense allows for the purchase of software and items that assist with the HDR scanning system. Survey software will be loaded on the Forensic Data Collector and Forensic Evidence Division (FED) desktop computers to assist with after scan measuring and viewing of the data. The software is also used to extract measurements of the

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scene, move through the scene to see various witness viewpoints, stitch together multiple scans for a consistent viewing of the scene from various angles and to download the data sets to various Computer-Aided Design (CAD) software to create floor plan diagrams.

Publisher software will be used to create panoramic viewing of the spherical HDR photographs. The panoramic photograph is then available for crime scene investigators, prosecutors and others to review the scene as it was originally found.

The distance meter, target package, tripod and leveling stands, battery chargers, power supplies and cables are additional equipment needed to support the HDR scanning system. A crime scene may be at any type of location (indoor, outdoor or both). An extensive scene may have various types of terrain that require different types of equipment to get an accurate scan. A complex scene may require multiple scans and take several hours. Additional power supplies are necessary.

Section F: Construction (\$0) There are no construction costs associated with this grant request.

Section G: Consultants/Contracts (\$33,070) This expense allows for the training and technical support of the high resolution panoramic digital laser imaging system. System training is based on training crime scene staff in two four-day sessions and will be provided by the selected vendor. The training will include a forensic survey class to familiarize FED criminalists with the system and an advanced class after six months.

Maintenance and technical support of the scanning system must be kept current to ensure proper yearly calibration and accuracy of the scanner. Software must be supported to ensure no errors in the efficiency of produced results, diagrams or other generated data. This budget

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expense will allow for maintenance and support of the new system and software during the grant period.

Section H: Other Costs (\$0) There are no Other costs associated with this grant request.

Section I: Indirect Costs (\$0) There are no Indirect Costs associated with this grant request.

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**FY 2011 Coverdell Forensic Science Improvement
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Certification as to Plan for Forensic Science Laboratories—
Application from a **Unit of Local Government**

On behalf of the applicant agency named below, I certify the following to the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice:

This unit of local government has developed a plan for forensic science laboratories under a program intended to improve the quality and timeliness of forensic science or medical examiner services provided by the laboratories operated by the applicant unit of local government and any other government-operated laboratories within the State that will receive a portion of the grant amount.

I acknowledge that a false statement in this certification or in the grant application that it supports may be subject to criminal prosecution, including under 18 U.S.C. § 1001 and 42 U.S.C. § 3795a. I also acknowledge that Office of Justice Programs grants, including certifications provided in connection with such grants, are subject to review by the Office of Justice Programs and/or by the Department of Justice's Office of the Inspector General.

I have authority to make this certification on behalf of the applicant agency (that is, the agency applying directly to the National Institute of Justice).

Signature of Certifying Official

Sam Adams

Printed Name of Certifying Official

Mayor

Title of Certifying Official

City of Portland, Oregon

Name of Applicant Agency
(Including Name of Unit of Local Government)

Date

City of Portland, Oregon Police Bureau
Additional Attachments
Application Attachment 3

184569

U.S. DEPARTMENT OF JUSTICE
OFFICE OF JUSTICE PROGRAMS
NATIONAL INSTITUTE OF JUSTICE

**FY 2011 Coverdell Forensic Science Improvement
Grants Program**

Certification as to Generally Accepted Laboratory
Practices and Procedures

On behalf of the applicant agency named below, I certify the following to the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice:

Any forensic science laboratory system, medical examiner's office, or coroner's office in the State, including any laboratory operated by a unit of local government within the State, that will receive any portion of the grant amount uses generally accepted laboratory practices and procedures, established by accrediting organizations or appropriate certifying bodies.

I acknowledge that a false statement in this certification or in the grant application that it supports may be subject to criminal prosecution, including under 18 U.S.C. § 1001 and 42 U.S.C. § 3795a. I also acknowledge that Office of Justice Programs grants, including certifications provided in connection with such grants, are subject to review by the Office of Justice Programs and/or by the Department of Justice's Office of the Inspector General.

I have authority to make this certification on behalf of the applicant agency (that is, the agency applying directly to the National Institute of Justice).

Signature of Certifying Official

Sam Adams

Printed Name of Certifying Official

Mayor

Title of Certifying Official

City of Portland, Oregon

Name of Applicant Agency

(Including Name of State or Unit of Local Government)

Date

04:00

184569

City of Portland, Oregon Police Bureau
Additional Attachments
Application Attachment 3

U.S. DEPARTMENT OF JUSTICE
OFFICE OF JUSTICE PROGRAMS
NATIONAL INSTITUTE OF JUSTICE

**FY 2011 Coverdell Forensic Science Improvement
Grants Program**

Certification as to Use of Funds for New Facilities

On behalf of the applicant agency named below, I certify the following to the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice:

The amount of the grant (if any) used for the costs of any new facility or facilities to be constructed as part of a program to improve the quality and timeliness of forensic science and medical examiner services will not exceed the limitations set forth at 42 U.S.C. § 3797m(c) and summarized in the FY 2011 Coverdell Forensic Science Improvement Grants Program Announcement.

I acknowledge that a false statement in this certification or in the grant application that it supports may be subject to criminal prosecution, including under 18 U.S.C. § 1001 and 42 U.S.C. § 3795a. I also acknowledge that Office of Justice Programs grants, including certifications provided in connection with such grants, are subject to review by the Office of Justice Programs and/or by the Department of Justice's Office of the Inspector General.

I have authority to make this certification on behalf of the applicant agency (that is, the agency applying directly to the National Institute of Justice).

Signature of Certifying Official

Sam Adams

Printed Name of Certifying Official

Mayor

Title of Certifying Official

City of Portland, Oregon

Name of Applicant Agency
(Including Name of State or Unit of Local Government)

Date

City of Portland, Oregon Police Bureau
 Additional Attachments
 Application Attachment 3
 U.S. DEPARTMENT OF JUSTICE
 OFFICE OF JUSTICE PROGRAMS
 NATIONAL INSTITUTE OF JUSTICE

**FY 2011 Coverdell Forensic Science Improvement
 Grants Program**

Certification as to External Investigations

On behalf of the applicant agency named below, I certify the following to the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice:

A government entity exists and an appropriate process is in place to conduct independent external investigations into allegations of serious negligence or misconduct substantially affecting the integrity of the forensic results committed by employees or contractors of any forensic laboratory system, medical examiner's office, coroner's office, law enforcement storage facility, or medical facility in the State that will receive a portion of the grant amount.

I personally read and reviewed the section entitled "Eligibility" in the Fiscal Year 2011 program announcement for the Coverdell Forensic Science Improvement Grants Program. I acknowledge that a false statement in this certification or in the grant application that it supports may be subject to criminal prosecution, including under 18 U.S.C. § 1001 and 42 U.S.C. § 3795a. I also acknowledge that Office of Justice Programs grants, including certifications provided in connection with such grants, are subject to review by the Office of Justice Programs and/or by the Department of Justice's Office of the Inspector General.

I have authority to make this certification on behalf of the applicant agency (that is, the agency applying directly to the National Institute of Justice).

 Signature of Certifying Official

Sam Adams

 Printed Name of Certifying Official

Mayor

 Title of Certifying Official

City of Portland, Oregon

 Name of Applicant Agency
 (Including Name of State or Unit of Local Government)

 Date