



# Courthouse Square

APRIL 2014



# Message from Marion County Board of Commissioners and Salem-Keizer Transit Board of Directors

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April 2, 2014

To Our Community Partners and Friends:

The mission and values of both Marion County and Salem-Keizer Transit have one common goal – customer service. With today’s rededication of Courthouse Square, we restore a valuable asset to our community that will enhance our ability to deliver services to the public.

The Marion County Board of Commissioners and Salem-Keizer Transit Board of Directors appreciate you joining with us to rededicate Courthouse Square. Today we celebrate the renovation of a convenient urban transit mall, reinstatement of a public service building, and reunification of county departments to better serve our residents. We reunite our employees and patrons with downtown businesses, bringing economic benefit to Salem’s downtown core. Most of all, we honor the people who helped make this happen. Without their support – and yours – this project would not have been realized.

During eighteen months of remediation we’ve been impressed and grateful for the skill and attention to detail that has gone into each design, safety, and construction element. We thank the members of the Courthouse Square Solutions Task Force for their important guidance as we worked through the decision making process. We thank Structural Preservation Systems and their subcontractors for their work to ensure this facility is safe and sound. And we thank the county and transit project team that spent more than three years ensuring that this project proceeded in the public interest.

We are so pleased you are here with us today to celebrate this achievement.

Sincerely,

## **Marion County Board of Commissioners**

Sam Brentano  
Janet Carlson  
Patti Milne

## **Salem-Keizer Transit Board of Directors**

Jerry Thompson  
Brad Coy  
Steve Evans  
John Hammill  
Marcia Kelley

Robert Krebs  
Kate Tarter

## **Past Directors:**

Ron Christopher  
Joe Green  
Pete Jossi  
Doug Rodgers

# About the Courthouse Square Remediation Project

## Owners

- Marion County
- Salem-Keizer Transit

## Office Building & Transit Mall

- One full city block
- 5 story, 163,000 sq. ft. office building
- 4 lane bus mall
- North Block area
- Hatfield Plaza
- Retail space

## County Departments

- Assessor/Tax
- Board of Commissioners
- Business Services
- Community Services
- County Clerk
- District Attorney
- Finance
- Information Technology
- Legal Counsel
- Treasury

## Transit Services

- Transit Mall
- Administrative Offices
- Customer Service Center

## History and Remediation Project Timeline

- Opened  
*September 2000*
- Transit Mall Closed  
*July 2010*
- Office Building Closed  
*September 2010*
- Task Force Convened  
*January 2011*
- Owner Evaluation, Request for Proposals, and Design-Build Contract Signed  
*September 2010 to September 2012*
- Design-Build Contract Signed  
*September 2012*
- Design Development  
*September 2012 to April 2013*
- Construction Work  
*November 2012 to January 2014*
- Interior Finishing & Final Clean Up  
*February 2014 to March 2014*
- Reopening  
*April 2014*

## Cost

- Remediation Contract – \$22.9 million  
Marion County – 70%  
Salem-Keizer Transit – 30%
- Owner Investments – \$3.7 million  
*As of December 31, 2013*

*Remediation costs and owner improvements were financed through a variety of sources including insurance and litigation proceeds, electrical revenue, grants, and loan proceeds.*



# History and Background

## **Courthouse Square Opens**

Beginning in the 1970s, Marion County commissioners expressed an interest in consolidating county services into one location, improving efficiency and resident access to county services.

In 1973 the county purchased the Senator Hotel located at the corner of Court and High Streets, directly across the street from the Marion County Courthouse. By 1997 the county had purchased the final three parcels needed for 100 percent ownership of the block.

During this time, several local studies had identified the Senator Block as an ideal location for a central transit facility. In November 1995, Salem-Keizer Transit and Marion County agreed that a public partnership was in their mutual interest and the idea for Courthouse Square was born.

Over the next few years the county and transit district worked with a local developer to plan and design the facility. Following a scaled back version of the original design, demolition of the Senator Block began in June 1997. A contract for construction of the building and adjoining transit mall was awarded at a cost of \$34 million in February 1999. The Courthouse Square office building and transit mall opened to the public in September 2000.

## **Structural Issues Emerge**

By 2002 issues with the building and transit mall started to emerge. Problems that were

initially thought to be cosmetic and repairable included buckling floor tiles in restrooms, leaking windows, and minor cracks in some walls. Visible defects were also noted in the brick paving and drainage systems on the transit mall.

Over the next eight years the county and transit district initiated seven separate engineering studies to assess noted areas of concern. Each review concluded that while repairs were necessary, the complex remained safe to occupy.

In January 2010, Marion County and Salem-Keizer Transit engaged architectural and engineering consultants to complete a comprehensive assessment of the Courthouse Square Complex to evaluate and mitigate problems.

Preliminary findings concluded that the weight of the transit drive surface highly stressed the columns in the parking garage and the office building was showing early signs of serious defects making long-term occupation inadvisable. Findings pointed to defects in design, materials, and construction. In July 2010, the transit structure was classified by the City of Salem as “imminently dangerous” and the office building as “dangerous” due to numerous structural deficiencies.

## **Relocation and Forensic Investigation**

The transit mall was closed in July 2010, followed by the office building two months later. County and transit business offices moved into

five leased buildings and the adjoining bus mall was relocated a few blocks away. After several moves, transit services settled operations outside the fenced perimeter of the Courthouse Square block.

Following relocation from the complex, the county and transit district ordered a forensic analysis as an independent “look back” of the original project planning, design, and construction process. The forensic investigator reviewed more than 60,000 documents and conducted interviews with key participants. The report concluded the engineer of record did not meet the “standard of care” and recommended a rigorous competitive process for future contracting, an independent peer review of potential future design work, and use of an Owners’ Representative to represent the owners’ interests.

## **Task Force Convened**

The 2010 structural analysis report raised a number of questions about the office building’s viability. For example, three different tests were conducted of the concrete with three different sets of results—none of which seemed logical to construction experts. Initial repair estimates by consulting engineers exceeded \$49 million. To demolish and replace the building was estimated at \$56 million. Yet \$14 million was still owed to finance the original construction. County and transit leaders sought community input “to identify and develop possible solutions for a future course of action” regarding Courthouse Square. A 30-member Courthouse



Square Solutions Task Force was appointed and comprised of transit, county, and citizen representatives with expertise in audits, engineering, construction, finance, business, real estate, downtown and community perspectives. Task Force members met ten times during 2011. A Technical Subcommittee studied potential remediation solutions while an Ideas Subcommittee explored possible alternative uses for the site. Members also served on the proposal evaluation committee.

The Technical Subcommittee researched and presented information on innovative technologies demonstrating remediation as a viable solution.

### **Remediation Recommended**

The task force recommended remediation of the building and transit mall to the joint boards. A cost benefit analysis report was completed by a certified general real estate appraiser. The report identified the site as one of the best blocks in downtown Salem and ideally suited for continued use as a transit mall and office building due the centralized, easily accessible location.

County and transit district officials identified a number of criteria for consideration as they discussed the future of the complex. Potential solutions were evaluated based on financial feasibility; highest and best use of the site; the cost benefit analysis report; and future needs of the county, transit district, and community. Primary considerations for the two boards included public and employee confidence in the



future safety of the complex and solutions that would provide a service life of 50+ years.

In order to keep the public apprised of the decision making process and provide residents with the opportunity to ask questions and provide feedback, county commissioners and transit board members discussed or presented information about Courthouse Square at 103 separate meetings between July 2010 and April 2012.

By November 2011, Marion County and Salem-Keizer Transit issued a Request for Proposals for remediation of the complex. It contained comprehensive requirements for potential proposers that included extensive engineering and construction experience, with verified expertise in post-tensioned construction.

### **Moving Forward**

A joint evaluation committee recommended Structural Preservation Systems, LLC as the

design-build firm to complete remediation and the Marion County Board of Commissioners and Salem-Keizer Transit Board of Directors voted unanimously to repair the complex on April 30, 2012. The county and transit district finalized a \$22.9 million contract with design development and construction beginning Fall 2012. Revenues covering original project costs included \$11.3 million in litigation and insurance proceeds, \$5.7 million in electrical revenue, \$3.4 million in state grants, and a \$2.5 million loan.

Throughout the process, the Marion County Board of Commissioners and Salem-Keizer Transit Board of Directors remained committed to a final outcome that delivered a structurally sound office building and transit mall for employees and the public benefiting the community at large.



# Office Building and Transit Mall Remediation

Remediation encompassed repairs essential to the complex's structural integrity, seismic upgrades, refreshed interior finishes, and passenger waiting areas on the transit mall. Many structural repairs occurred in the underground parking garage and within the building's interior walls and are no longer visible. With repairs complete, the exterior and interior of the building look much the same. A reinforced concrete slab with an epoxy coating replaces the former sand and paver drive surface of the transit mall.

After eighteen months of construction, the Courthouse Square office building and transit mall are ready to reopen to the public. The project has proceeded on schedule and within budget. The transit mall and customer service center will open on Monday, April 7, 2014, with a phased return of county and transit business offices throughout the spring.



## Remediation Efforts

To complete repairs, STRUCTURAL used a combination of construction techniques. A significant portion of the project involved structural upgrades to columns throughout the complex. Remediated columns required concrete enlargement for increased axial capacity and column capitals at the slab for increased punching shear resistance.

Carbon fiber reinforced polymer, or FRP, was used to strengthen specific slabs and columns. FRP is commonly used when retrofitting existing structures to increase strength and seismic resistance. The material is lightweight, does not corrode, and is 10x stronger than steel. Building envelope repairs included masonry, curtain wall, flashing, and select window replacement at locations throughout the building.

The paver system on the transit mall was replaced with a reinforced structural concrete overlay and finished with an epoxy drive surface. Numerous columns and foundations

below the bus mall were enlarged and/or FRP was installed to provide the needed structural strengthening.

## Serviceability

Serviceability repairs within the office building included localized slab grinding and the application of a self-leveling compound to reduce floor unevenness. The perimeter concrete walls at the basement level were chemically injected to prevent water intrusion into the parking garage.

The county and transit district reused furnishings and other fixed surfaces throughout the building as much as possible. While the interior will be refreshed with new paint, carpet and wallpaper, you will notice reused and repurposed counters, doors, interior windows, and cabinets. Original terrazzo floors and lighting fixtures also remain.

Environmentally friendly and sustainable products were selected for interior finishes. Carpets include 45% recycled content with non-PVC tile backing. Low-VOC (volatile organic





compound) paint and wallpaper adhesive were also used throughout the office building.

### Quality Assurance

Delivery of a structurally safe complex with sound engineering and 50 year service life was a primary focus of the owners. CASE Forensics was hired as the owners' representative, ensuring a rigorous quality assurance program as the project proceeded. The owners' representative, an engineering and technical expert, was responsible for ensuring the best interests of the owners were met as the project progressed.

Throughout the project, a series of four inspections occurred as repairs were completed. Repairs moved forward only when each inspector was satisfied with the quality of completed work.

### Safety First

Maintaining a safe work environment is a large part of STRUCTURAL's company culture. Contractors, subcontractors and on site

vendors participated in daily safety meetings. All visitors were required to attend a safety orientation, as well as wear full protective equipment. Salem area subcontractors and the City of Salem Building and Safety Division were actively involved in safety planning and provided expertise on local safety codes and requirements.

STRUCTURAL partnered with the City of Salem Fire Department's Technical Rescue Team for hands-on high angle rescue training during the project. This was a unique training opportunity for area first responders and familiarized the construction crew with the fire department's needs and procedures in the event of a real rescue situation.

### Owner Investments

The county and transit district invested in additional interior and exterior improvements to ensure the complex was equipped for a lengthy service life.

Examples of owner investments and improvements include security and technology

upgrades; exterior lighting; heating and cooling system upgrades; and painting of exterior awnings and bridges. An upgraded passenger information system was also installed on the transit mall's center island and in the customer service area. Tenant improvements included reconfiguration of office spaces to accommodate departments moving into Courthouse Square.

### Cooperation and Collaboration

Courthouse Square has been described as a model project and STRUCTURAL has praised the level of cooperation and collaboration with local contractors and vendors all focused on delivering a successful project. Project Manager Dave Clark highlighted the team's success and work culture at STRUCTURAL's annual corporate meeting in Baltimore, Maryland, citing it as one of their best collaborative projects both nationally and internationally.



# Courthouse Square Project Team

Through a rigorous competitive process, Structural Preservation Systems, LLC was selected as the design-build firm to complete remediation of the Courthouse Square complex.

STRUCTURAL is recognized as one of the largest structural and architectural repair and strengthening contractors in the United States with over 15,000 successful national and international projects.

In addition to numerous projects of similar scope and complexity as Courthouse Square,

STRUCTURAL's notable projects include the Guggenheim Museum; Union Station, Washington D.C.; La Guardia Airport, and the U.S. Supreme Court building.

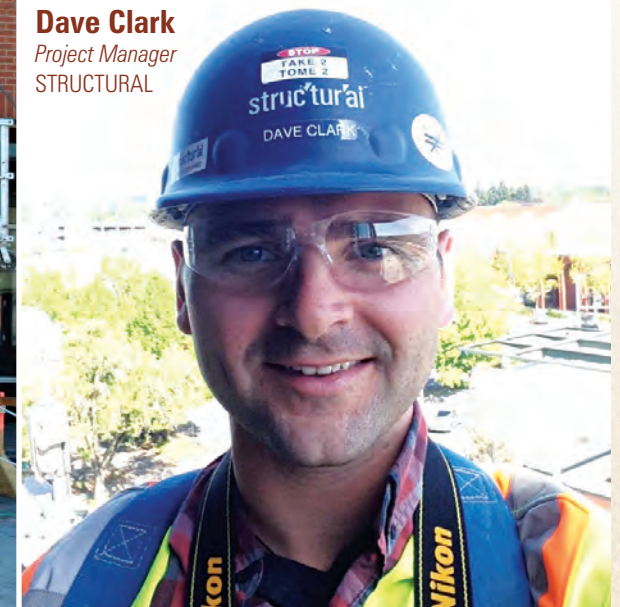
Courthouse Square Principal Engineer Randall Poston, PhD, PE, SE, was featured as "The Corrector" in the September 2013 issue of Structural Engineer Magazine. Dr. Poston is a principal with WDP & Associates, a nationally recognized engineering firm specializing in structural and architectural engineering.

Local subcontractors include Dalke Construction, Inc., Carlson Veit Architects, P.C., MSC Engineers, Inc. (formerly BMGP Engineers), and Environmental and Engineering Services (EESI).

Over the course of the project a peak of 80-100 construction workers were at the downtown site completing repairs.



**Dave Clark**  
Project Manager  
STRUCTURAL





## Owners' Executive Team

### Marion County

John Lattimer, *Chief Administrative Officer*

Jan Fritz, *Deputy County Administrative Officer*

Peggy Mitchell, *Contracts Compliance Manager*

Bruce Armstrong, *Senior Assistant Legal Counsel*

Barb Young, *Government Relations Manager*

### Salem-Keizer Transit

Allan Pollock, *General Manager*

Gregg Snyder, *Capital Projects Manager*

## Owners' Representative

### CASE Forensics

Ken Oliphant, *Senior Structural Engineer*

Mark Liebman, *Senior Forensic Investigator*

Alec Liebman, *Forensic Investigator*

## Design-Build Team

### Structural Preservation Systems, LLC

Scott Greenhaus, *Executive Vice President*

Keith Eberhardt, *Branch Manager*

Dave Clark, *Project Manager*

Jamie Ram, *Project Engineer*

Brandon Keezer, *Project Design Manager*

Roman Prus, *Superintendent*

Mark Turner, *Superintendent*

Bill Meinert, *Safety Facilitator*

### Whitlock Dalrymple Poston & Associates, P.C.

Randy Poston, *Principal, Engineer of Record for Transit Mall and North Block*

Eric Peterson, *Principal*

James Parker, *Engineer of Record for Office Building*

Michael Ahern, *Senior Engineer*

### Dalke Construction Company, Inc.

Rich Arendt, *Project Manager*

Corey Hancock, *Superintendent*

### Carlson Veit Architects PC

Craig Carlson, *Architect of Record*

Michael Junge, *Project Architect*

### Environmental & Engineering Services, Inc. (EESI)

Alan Wright, Ph.D., P.E.

Laurel Wong, P.E.

### MSC Engineers, Inc.

William Pease, S.E.

Cameron Swearengin, S.E.

## Major Sub-Contractors

Caslin, Inc.

Davidson's Masonry, Inc.

Northside Electric

Pioneer Waterproofing Company, Inc.

## CONSTRUCTION FACTS

- Over 40 local contractors
- Over 100 construction workers during project peak
- Over 125 shear caps installed
- Over 250 columns enlarged
- Over 275 columns wrapped in FRP
- Over 2,000 yards of concrete poured
- Over 25,000 holes drilled for rebar
- Over 60,000 sq. ft. of carbon fiber installed
- Over 150,000 sq. ft. of Class A office space renovated
- Over 300,000 lbs. of steel used





## Subcontractors and Contributors

### Subcontractors

Bainbridge Design

Cascade Sound & Stage Lighting Inc.

City of Salem

CJ Hansen Company, Inc.

Dallas Glass & Window

David Evans and Associates, Inc.

EC Specialties, LLC

Empire Painting, Inc.

Falls Insulation

F&W Fence Co., Inc.

Fire Systems West, Inc.

Golder & Associates

GPR Data, Inc.

H&L Corporation Steel Erectors

Industrial Concrete, LLC

Jammies Environmental, Inc.

Neudorfer Engineers, Inc.

North American Terazzo

Northwest Geotech, Inc.

Northwest Scaffold Service, Inc.

Oregon Cascade Plumbing & Heating, Inc.

Overhead Door

Ralph's Concrete Pumping, Inc.

Safway Services, LLC

Salem Wood Products, Inc.

Santiam Steel

Service Point

Snyder Roofing & Sheet Metal, Inc.

Thomas Kay Flooring & Interiors

Trane Oregon

Wise Steps, Inc.

### Ken Oliphant

*Owners' Representative*  
CASE Forensics



### Rich Arendt

*Project Manager*  
Dalke Construction







## Courthouse Square Solutions Task Force and Project Staff

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### **Courthouse Square Solutions Task Force**

Marion County Board of Commissioners

Salem-Keizer Transit Board of Directors

Chuck Bennett

Sheronne Blasi

Burton Bogart

Michael Brooks

Robert Brownell

Casey Campbell

Peter Dassow

Richard Duncan

Bill Holmstrom

Geoffrey James

Kevin Joyce

Gary Keys

Jim Lewis

Charles McCullough

Barry McNall

Eric Meurer

Gene Pfeiffer

Robert Royer

Randy Saunders

Alan Scott

John Stensland

James Van Liew

Jerry Walling

William Zoerner

### **County-Transit Project Staff and Work Group**

Lorna Adkins

Bruce Armstrong

Gordean Ash

Sadie Carney

Lynne Coburn

Jan Fritz

Mina Hanssen

Cindy Johnson

Jolene Kelley

John Lattimer

Peggy Mitchell

Hitesh Parekh

Ken Pearson

Allan Pollock

Gregg Snyder

Larry Tilford

Dan Wilson

Barb Young





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### **Salem-Keizer Transit**

555 Court Street NE, Salem, OR

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