

## Focus

### Best Practices for Preserving Parking Assets



As many municipalities, institutions, and corporations struggle with a weak and uncertain economic climate, the idea of constructing any new buildings, including parking facilities, in the near future seems unlikely. Therefore, it is extremely important to be proactive in the regular appraisal and maintenance of existing facilities, to preserve them for as long as possible.

Parking structures are extremely valuable assets, and it is important that owners get as much benefit and return out of them as possible. To extend the service life of these facilities, as well as reduce costs, and potentially serious issues as a result of neglect, there are a number of restoration services we perform to sustain structures for many years.

TimHaa**h**s has a dedicated team of restoration specialists in place, with considerable experience performing asset management services. To help our clients preserve and maintain their parking structures, we have made it our goal to assist in evaluating assets to determine the most effective and successful strategies for maintenance. We have performed numerous successful restoration projects, with services including condition appraisals, construction documentation, construction administration services, preparation of maintenance manuals, and implementation of asset management plans.

TimHaa**h**s can serve as a resource and partner in these times to develop proactive strategies for parking asset maintenance and restoration. Our primary focus is to assist our clients in making the best management and financial decisions for their organization.

Kevin W. Carrigan, P.E., CAPP  
Director of Engineering



## Approaching Strategic Parking Asset Management in Today's Economy

Today more than ever, owners need to use creative and efficient strategies to reduce costs. While saving money is a major priority for individuals and families, this renewed emphasis on saving also rings true for most (if not all) corporations, institutions, and public entities. As a result of the recent economic crises, owners and decision makers carefully consider where funds are spent, and evaluate ways to cut costs.

One proven, effective approach to lower costs is consistent assessment and facility maintenance of structural assets, including structured parking. Parking assets should be regularly examined for any signs of structural or aesthetic concerns, and should receive immediate attention when potential issues are identified. When assessment and maintenance are a high priority, owners and facility managers can readily identify and target maintenance and repair issues. Costs associated with correcting minor issues early on are significantly lower than those issues which stem from neglect, and lead to more detrimental conditions, and potential liability.

Parking structure maintenance strategies should be implemented as early as possible after new construction. A detailed and comprehensive maintenance plan, established and properly implemented from the facility's opening, forms the first line of defense against minor and major structural problems resulting from normal "wear and tear".

The maintenance plan should include regular drain cleaning, snow removal and ice control, sweeping/cleaning of common and pedestrian areas, replacing joint sealant, and repair or reapplication of concrete sealers and waterproofing. These "minor" chores will have a significant and long-lasting impact on the quality of the facility, helping to avoid issues which can lead to premature concrete deterioration, as well as other structural, mechanical, and aesthetic issues.

While some owners and parking facility operators do not have a maintenance plan in place, it is never too late to begin to identify and manage potential problems. Having an experienced restoration engineer perform a simple walk-through appraisal

is a great start. The engineer can assess concerns associated with the facility's age, structural system, and construction quality. Plans can then be made to remedy the issues immediately and develop a comprehensive plan for management and maintenance.

Owners can preserve their significant investment in parking structures, lengthening the service life, and the overall quality of the facility. Consistent, quality maintenance is extremely important, especially during tough economic times. Proper condition appraisals and maintenance policies and procedures extend the building life-cycle, so that these important assets can continue to operate successfully for years to come.

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# 7 BENEFITS OF CONSISTENT ASSET MANAGEMENT

## 1 Visual Appeal and "Sense of Place"

Aesthetic concerns as a result of parking structure deterioration can negatively impact the facility as well as the surrounding areas.

### Philadelphia International Airport Enhancements Philadelphia, Pennsylvania



After



Before

Recent upgrades at the airport parking structures included enhancing vehicular entries and circulation routes, pedestrian-friendly features, and lobby upgrades. Pedestrian enhancement focused on multiple elevator lobbies distributed throughout these large structures.

The lobby upgrades included new finishes and materials as well as new automatic sliding doors to provide traveling patrons with a more pleasant experience. These enhancements have created a more attractive "gateway" to the airport terminals.



After



Before

### Union Station Parking Garage Restoration Washington, DC

The parking structure at the Historic Union Station was in need of an upgrade due to its age, and to accommodate an ambitious expansion which was functionally dependent upon the existing structure.

Restoration services on the structure included adding supplemental drainage to prevent water ponding, repair or replacement of all failed expansion joints, and the application of migrating corrosion inhibitors and 100% silane sealers.

## 5 Extended Life Cycle

Regular appraisal of parking assets and implementation of recommended improvements will help maintain their quality, while extending their life cycle.

## 6 Structural Integrity

Parking structures are built to endure various types of loading and movement, as well as harsh weather extremes. Without proper maintenance, the structure will experience detrimental consequences, and the strength of the garage may be compromised.

Parking structures are unique facilities, designed to withstand harsh conditions including weather extremes, water infiltration, thermal expansion and contraction, vehicular traffic, and depending on the region, de-icing salts and snow plows.

A parking structure that is not properly maintained will experience detrimental consequences including structural deficiencies, premature concrete deterioration, and even safety hazards.

## 7 Reduced Liability

Lack of maintenance or deferred restoration needs can lead to increased exposure to potential liability. It is extremely important for these issues to be addressed as soon as possible once they are discovered.

### Systematic Asset Management Process



## 4 Reduced Long-Term Costs

The costs of identifying and correcting potential problems upon first notice will be significantly lower than the costs of ignoring these "minor" issues, resulting in larger and more serious deficiencies in the future.



### Florida International University Restoration Services Miami, Florida

A condition appraisal of the Blue and Gold parking garages at FIU found a number of issues including column and beam cracks, concrete spalling, as well as failed sealant at control joints.

As a result of the University's proactive approach to maintenance, the program resolved multiple conditions to enhance the perception of the facility and reduce long-term costs.



## 2 Increased Revenue

A parking structure that is perceived to be structurally sound and visually attractive will provide patrons with a higher level of comfort than a competing garage, which may lead to increased user preference and higher revenue. In addition, performing a lighting audit to assess the quality and energy efficiency of the lighting throughout the garage will also help to increase annual savings.

## 3 Enhanced Safety

Issues such as inadequate lighting, concrete deterioration, and tripping hazards should be prevented to maintain patron safety and comfort throughout the facility.

## Focus on Miami

### Mark Santos, P.E. to Manage Miami Office



TimHaahs is pleased to announce Mark Santos' promotion to Vice President of our Miami Office. Since 2007, Mark has served as Corporate Director of Operations. Mark's experience with TimHaahs includes complex parking and mixed-use projects, from studies and planning through design and restoration. Mark will continue to serve as Director of Operations nationwide.

## Focus on Atlanta

### Brian Miller, P.E., S.E. Joins TimHaahs as Senior Project Manager for Atlanta Office



TimHaahs is proud to announce that Brian Miller has joined our Atlanta office as a Senior Project Manager. Brian has experience managing and coordinating the design and construction efforts for both cast-in-place and precast parking structures. He has also performed feasibility studies, shared-use analyses, and supply and demand studies for numerous parking projects.

## Speaking Out

Mike Martindill

Parking Association of Georgia Conference  
"Public/Private Partnerships"

Timothy H. Haahs, P.E., AIA  
SMPS Regional Conference  
"Leadership & Management – Striking an Effective Balance"

World Parking Symposium International Conference  
"Making the Right Real Estate Decision – Thinking Beyond Parking"

Middle East Parking Symposium  
"Making the Right Real Estate Decision: Embracing Mixed-Use Development with Parking in Mind"

Todd J. Helmer, P.E.  
Pennsylvania Parking Association Conference  
"Parking Integration for Downtown Districts and Main Streets"

Jim Zullo, CAPP, LEED AP  
University of Rochester Meeting of the Minds  
"Campus Master Planning with Parking in Mind"

New York State Parking Association  
"The Economics of Parking"

Rachel E. Yoka, LEED AP, CPSM  
SMPS Philadelphia Marketing Essentials Program  
"LEED Accreditation for Marketers"

## Industry Articles

University Master Planning - Creating People Places  
PARKING Magazine – Mike Martindill  
September 2008

What's So Important about Parking Structure Maintenance?  
The Parking Professional – Kevin Carrigan, P.E., CAPP  
November/December 2008

Parking as a Catalyst for Revitalization  
Urban Land – Timothy H. Haahs, P.E., AIA  
November/December 2008

Improving Connections: A Look at the Challenges Faced Throughout the Development of the Norristown Transportation Center Parking Structure  
The Parking Professional – Noli Alarcon, P.E.  
April 2009

Structured Parking for Transit Oriented Development  
Urban Land – Timothy H. Haahs, P.E., AIA & James Zullo, CAPP, LEED AP  
April 2009

Renewing the Mission  
SMPS Marketer – Rachel E. Yoka, LEED AP, CPSM  
June 2009

Payment in Lieu of Parking... A Growing Trend for Economic Development  
Parking Magazine – Chris Walls, CPP  
September 2009

York Hospital's New Parking Structure - Creative Solutions to Complex Design & Construction Issues  
Parking Magazine – Noli Alarcon, P.E. & Bob Heidelbaugh, AIA  
September 2009

Planning & Design: Considerations for VA Parking Facilities  
The Parking Professional - Noli Alarcon, P.E. & Megan Leinart, LEED AP  
September 2009

## News & Press

### Miami Marlins Ballpark Designs

TimHaahs was recently awarded a significant project for the Miami Marlins' new ballpark in Miami, Florida. TimHaahs will work with prime architect, Leo A. Daly to provide full parking functional design and all structural engineering services for four parking structures totaling approximately 4,800 spaces and 60,000 square feet of retail space.

### TimHaahs' Parking Seminar Series - How to Finance a Parking Structure in Current Economic Times



The Philadelphia office hosted a Parking Seminar on October 21, 2009. The seminar featured presentations on public/private partnership initiatives and how to creatively use financing for parking and mixed-use.

### TimHaahs Prepares Long-Term Maintenance Program for the University of Georgia

For the University of Georgia, TimHaahs developed a maintenance program for their existing eight parking decks and two new decks (designed by TimHaahs). The ongoing maintenance program will serve as an Asset Protection Plan to extend the useful life of the structures.

### IPI Board of Directors

The International Parking Institute (IPI) recently elected Timothy Haahs to his fourth term serving on the Board of Directors. IPI also elected Jim Zullo to serve on the Board of Advisors.



### TimHaahs Staff Achieve LEED AP

The firm recognizes the need to incorporate sustainable design principles into our projects. The firm would like to congratulate the following new LEED APs: Boik Jo, Andy Choe, Victor Caban-Diaz, Marion Parker, Laura Sanburn, Ed Rahme, Jim Zullo, Sue Kim, Seung Lee, Rachel Yoka, Megan Leinart, and Vicky Gagliano.

### SMPS Philadelphia Board of Directors Election

Adrienne Fessler has served the past two consecutive Program Years and was re-elected for the upcoming year to serve as the Website Chair.

### USGBC South Florida Chapter, Miami Executive Board

Victor Caban-Diaz, LEED AP was recently elected to the USGBC's South Florida Chapter, Miami Branch Executive Board. The members of the USGBC's South Florida Chapter selected Victor to serve on the Executive Board as Secretary.

## Project Awards

International Parking Institute Award of Merit  
Philadelphia International Airport Enhancement,  
Philadelphia, PA

New Jersey Business & Industry Association  
New Good Neighbor Awards  
The Plum Street Parking Structure, New Brunswick, NJ

Tampa Bay Design Awards (AIA Tampa Bay Chapter)  
The Channelside Parking Garage Expansion, Tampa, FL

## Selected Current Projects

### Connecticut

Union Station Garage Design, New Haven

### Florida

Canaveral Port Authority Garage Design/Build, Cape Canaveral  
City of Clearwater Parking Study, Clearwater  
Grand Avenue Bahama Masterplan, Coconut Grove  
Miami Beach Freshmarket Parking Design Services, Miami  
Miami Marlins Ballpark Parking Garages, Miami  
Tampa Port Authority Garage Design Services, Tampa  
University of Central Florida Garage C Condition Appraisal, Orlando  
University of Central Florida Garage 6 Design/Build, Orlando  
University of Central Florida Garage H Restoration, Orlando  
Veteran's Affairs Medical Center Parking Consulting, Orlando

### Georgia

Dalton State College Garage Design, Dalton  
Emory University Parking Expansion Study, Atlanta  
Emory University Clairmont Parking Deck, Atlanta  
Gainesville State College Garage Design, Gainesville  
Georgia State University Decks K & N Restoration, Atlanta  
LAZ Parking Garages Restoration, Atlanta  
Medical College of Georgia Cancer Center Garage Design, Augusta  
Saint Joseph's Hospital Garage Restoration, Atlanta  
Southern Polytechnic State University Garage Design, Marietta  
St. Mary's Hospital Parking Deck Restoration, Athens

### Maine

Noyack Medical Center Gateway Garage Restoration, Portland

### Maryland

Defense Information Systems Agency Garage Design, Fort Meade  
T. Rowe Price Corporate Campus Phase 3 Garage, Owings Mills

### Mississippi

Biloxi Garages Consulting, Biloxi  
Cotton Mill Marketplace Parking Study, Starkville

### Pennsylvania

3rd & Ferry Streets Garage Restoration, Easton  
Ardmore Transit Center Parking Structure, Ardmore  
CHOP Ambulatory Care Facility Parking Consulting, Philadelphia  
East Liberty District-Wide Parking Study, Pittsburgh  
PNK Wholesale Warehouse Design, Philadelphia  
Penn State University Parking Supply/Demand Study, State College  
Reading Convention Center Parking Structure, Reading  
Red Rose Transit Authority Queen Street Garage Design, Lancaster  
SEPTA Wawa Station Garage Design, Wawa  
Upper Darby Township Garage Design, Upper Darby  
Veteran's Affairs Medical Center Parking Structure, Philadelphia

### New Jersey

Casino Reinvestment Development Authority Mixed-Use Parking  
Downtown Metuchen Parking Assessment, Metuchen  
Metropark Parking Decks Condition Appraisals, Edison  
Rahway Parking Authority Downtown Parking Study, Rahway  
Rowan University Parking Structure Study & Design, Glassboro  
Rutgers Deck I, Phase III Repair, Newark  
Structure Design, Atlantic City

### New York

Canal Side Parking Design Services, Buffalo  
City of Binghamton Garage Restoration Services, Binghamton  
City of Binghamton Parking Planning & Design Study, Binghamton  
Croton-Harmon Station Parking Feasibility Study, Croton-on-Hudson

### Tennessee

Middle Tennessee State University Parking Consulting, Nashville  
Music City Center Parking Structure Consulting, Nashville

### Virginia

City of Richmond Comprehensive Parking Study, Richmond  
Commonwealth Parking Garage Design, Chantilly

### Washington, DC

Union Station Parking Structure Restoration

### International

Lulu Tower Parking Planning, Abu Dhabi, UAE  
King Abdullah Financial Center Consulting, Saudi Arabia  
Songdo City Parking Consulting Services, South Korea  
Sharjah Holdings Master Planning Services, UAE

## Our Mission

**TimHaahs**  
ENGINEERS & ARCHITECTS

We exist to help those in need.

We emphasize assisting those medical, religious, and charitable organizations (as well as individuals) directly involved with helping those in need.

We believe that the best way to accomplish this mission is to become a recognized leader in our chosen field and profession, and provide engineering and architectural services that are not merely adequate, but distinguished.

We will use, to the best of our abilities, our God-given talents in Architectural Design, Structural Engineering, Parking Consultation, and Project Management.

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