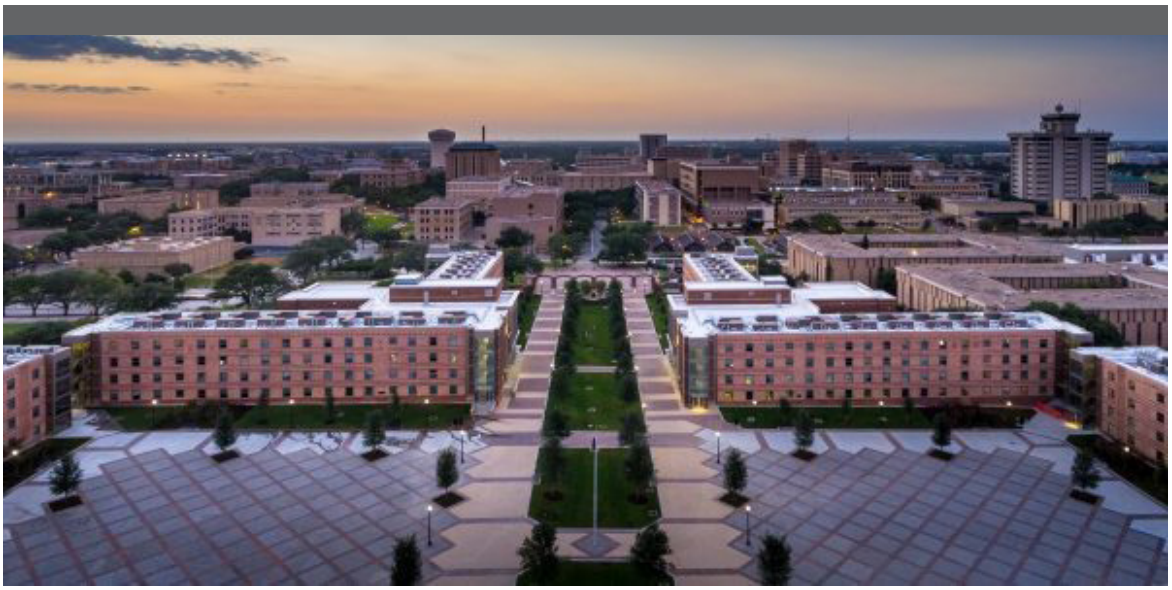
SPRING 2019

CHAMBERLIN
Roofing & Waterproofing

NEWSLETTER

Restoring TAMU Corps Dorms



Texas A&M University Corps Dorms houses more than 2,600 students in College Station, Texas.

Texas A&M University Corps Dorms in College Station, Texas, accommodates approximately 2,600 students in 12 dorms on the Corps of Cadets Quadrangle. Members of the Corps are required to reside here unless approved by the Commandant, making this a very high volume area of the Texas A&M campus.

Constructed in 1939, the dorms have undergone renovations throughout the years but by 2015, no renovations had been made for 25 years. With weather and time taking their toll, nine of the 12 dorms were in need of major repairs. In August of 2015, Chamberlin was selected by general contractor SpawGlass to kick off a two-year process to stop water intrusion and revitalize the Corps Dorms.

SAFETY FIRST

The project was divided into two phases with phase one consisting of five dorms and phase two completing the remaining four dorms. The buildings that were being worked on were not occupied during construction, so time was of the essence to re-open the dorms to residents. The construction site was still a high-traffic area, however, since the surrounding dorms were occupied. Safety of the students and other pedestrians was top of mind. Chamberlin began

(Continued pg. 2...see TAMU)

CONSULTANT'S CORNER:

Nam Shiu, PE, SE
Senior VP/Senior Director of Restoration
Walker Consultants

Laurence C. Susmarski
Restoration Consultant/ Project Manager
Walker Consultants

Parking Facility Restoration: Five Factors to Consider When Restoring Existing Parking Facilities

Restoration of existing parking structures is unavoidable and something that needs to be done regularly. With the advent of the concrete repair industry, a majority of maintenance and repair work is fairly straightforward. There are many readily available resources from professional organizations and technical committees outlining how parking structures can be kept in good condition to extend their service life. Typical maintenance and repairs usually include various types of

(Continued pg. 2...see PARKING)

INSIDE this issue

(TAMU continued from pg. 1)

by developing a site-specific safety plan for the project, and the superintendent communicated the plan to all crew members. A Job Hazard Analysis (JHA) was also developed for this project which covered each task on the job, potential hazards associated with those tasks and how to prevent those hazards from causing an accident. The superintendent reviewed it with crew members each day before work began.

Warning and directional signage as well as designated pathways were in place for foot traffic. All equipment was inspected daily by a competent person before use. Personal protective equipment was worn at all times, and Chamberlin's zero tolerance fall protection policy was in place. Weekly toolbox talks were held for all crews covering pertinent safety topics and reinforcing Chamberlin's safety policies and procedures.

OVERCOMING CHALLENGES

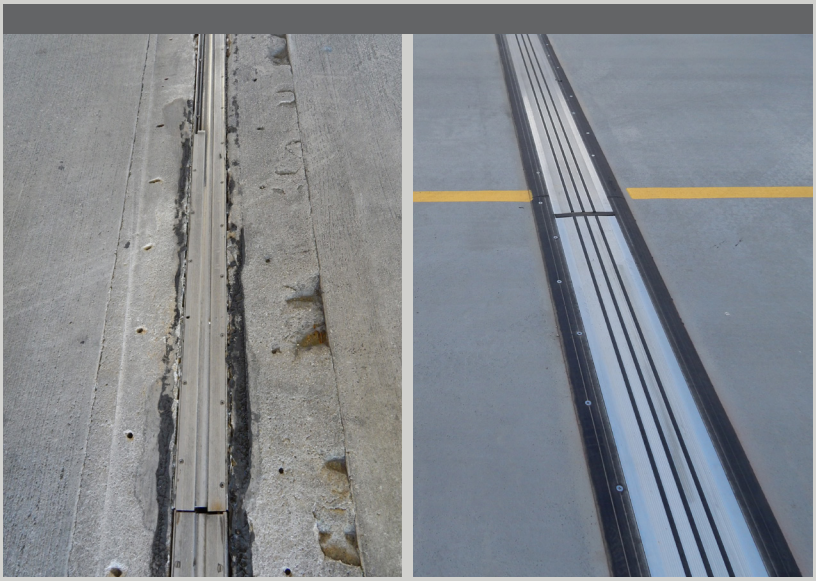
The dorms in each phase were worked on simultaneously, which required a large crew to complete the work on time. Chamberlin Project Manager Mike Harper and Superintendents Lane Coston and Pablo Venegas worked hand in hand with SpawGlass to overcome major setbacks due to weather issues. Zero Six, the project consultant, designed the exterior restoration and waterproofing details for all nine dormitory buildings and worked with Chamberlin on the QA/QC process to help overcome unforeseen conditions.

Chamberlin's scope of work began with water blasting the building to remove dirt from the existing brick in order to expose any flaws in the grout as well as cracks in the exterior skin of the building. The pre-applied sheet waterproofing and fluid-applied waterproofing were both replaced. The scope also included installation of thermal insulation, weather barrier, sheet metal flashing and trim, expansion joints, water repellent, tuckpointing, brick replacement, cast stone repair and joint sealants. Along with the remedial waterproofing renovations, Chamberlin also installed pre-applied sheet waterproofing and fluid-applied waterproofing on the new building connectors. Four building connectors were added to allow an easier flow of traffic between the 12 dorms.

Aged and weathered masonry and mortar in need of repairs and replacements.

(Continued pg. 3...see TAMU)

(PARKING continued from pg. 1)



Before and after parking garage expansion joint replacement and traffic coating installation. Photo provided by Chamberlin Roofing & Waterproofing.

concrete repair, sealing cracks, replacing sealants, applying concrete sealers and maintaining traffic toppings. Although the unit costs for these work items are fairly uniform among repair contractors, the total repair costs could vary depending on specific site conditions and how the repair-phasing plan is developed.

There are at least five factors that can significantly affect the cost of restoration:

- Available space for repairs
- Optimizing operation income
- Maintaining level of parking service
- Life cycle cost analyses
- Specific requirements for ingress and egress

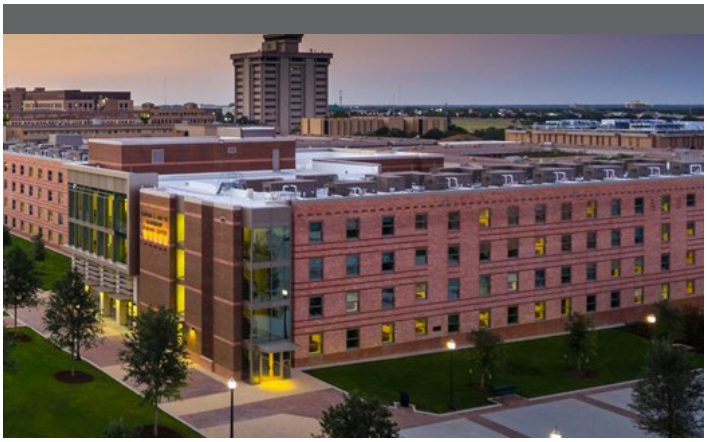
AVAILABLE SPACE FOR REPAIR

When planning for repairs, an engineer must work closely with the property manager or parking operator of the building to determine the number of parking spaces that can be taken out of service at any time during repair construction. Typically, most

(Continued pg. 3...see PARKING)

(TAMU continued from pg. 2)

Chamberlin crews secured bricks matching original construction and took care to keep with existing installation patterns during repair and replacement.



The restoration and revitalization of the Texas A&M Corps Dormitories completed in August 2017.

All 12 of Texas A&M Corp Dorms were constructed with the same brick 76 years ago. It was challenging to find replacement bricks that matched the existing closely enough to use in the areas that were too damaged to be salvaged. Chamberlin searched all local brickyards for the appropriate color. After cleaning them out, the crew moved the search to Louisiana to obtain the last of the bricks. The 76 years of aging on the existing bricks added another level to the challenge, but in the end the team secured matching bricks for replacements on nine different dorms. Additionally, the crew was challenged to finish the project on time after a large delay due to heavy rains that lasted for months. The relentless rain in phase one made the worksite extremely muddy creating extra clean up duties for the crew. Superintendent Lane Coston stated, "The working conditions were very challenging. We saw mud up to our knees in certain parts of the project. Getting all of that taken care of set us back." The weather delays caused phase two to start behind schedule, so the crew worked extra hours and brought in additional manpower to make up lost time while still delivering a high-quality job.

TEAMWORK PAYS OFF

Harper is proud of the team's hard work and perseverance to produce beautifully restored buildings. He states, "The thing that sticks out to me the most is how good the project looked upon completion. The dorms with all the matching bricks, the repaired mortar, the new building connectors, the archways and especially the grounds." Chamberlin overcame challenges to complete major repairs and replacements on nine Texas A&M dormitories on schedule with high quality installations and zero safety incidents. ■

(PARKING continued from pg. 2)

restoration contractors would like to have access to the entire parking area, and it would be cheaper and simpler to do it that way. However, more likely than not, this is impossible. The continued demand for parking spaces must still be met and, to a certain extent, the stream of revenue from parking spaces needs to be maintained. It is helpful to know early during the planning stage how many parking spaces can be taken out of service at any given time during repair construction.

Based on our experience, a minimum of 100 parking spaces is required at any given time in order for the repair construction schedule to flow well. Of course, the more parking spaces available to the contractor during repair construction will result in less phasing and shorter repair duration, thereby resulting in lower total repair costs. In short, the number of available parking spaces during repair construction is inversely proportionate to the total costs of repairing the parking facility.

Parking garage concrete repair. Photo provided by Chamberlin Roofing & Waterproofing.

(Continued pg. 4...see PARKING)

(PARKING continued from pg. 3)

It should be noted that concrete floor repairs generally involve more than one parking level. In addition to the level that is being worked on, the level below the repair area also needs to be taken out of service to protect vehicles and pedestrians from falling debris. Consequently, although 100 parking spaces may be taken out of service, the contractor may be able to work in an area of only 50 parking spaces.

The contractor's superintendent must work closely with the building manager or parking operator to transition from one phase to another so only the agreed upon number of spaces are taken out of service.

OPTIMIZING OPERATION INCOME

In downtown and urban environments, many parking facilities are attached to a mixed-use, high-rise building. In addition to monthly or yearly rental income for the spaces, there is a significant income stream from transient hourly parkers. With restoration construction, the transient parking will be reduced or even eliminated, resulting in a considerable loss of revenue to the owner. Understanding the impact of the loss of parking spaces and reduced revenue stream will allow for better optimization of the repair budget.

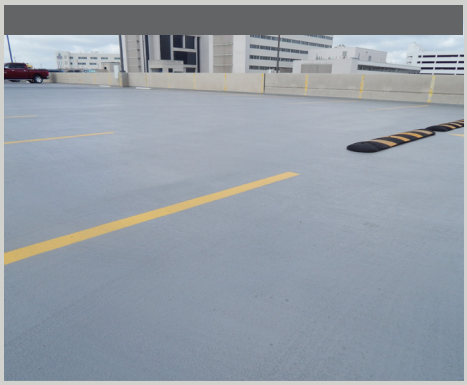
MAINTAINING LEVEL OF PARKING SERVICE

Repair construction tends to be dusty, noisy and messy. To lessen the impact, forward planning and communication are needed with the repair contractor, the parking facility operator, tenants and patrons. Steps to mitigate noise and dust can be written into the contract so the level of service is not compromised during repair construction.

Having multiple construction phases can result in confusion and frustration to the patrons if the re-routing signage is not clear and if the phasing schedule is not communicated early to all involved parties. We recommend that a detailed phasing plan be incorporated as part of the bidding documents showing the number of construction phases, each with the number of parking spaces to be taken out of service, at what dates and for how long a duration. This allows for all stakeholders to be aware of what can be expected in each repair phase. It is important that the phasing plan be discussed at the pre-bid meeting, so the bidding contractors understand the phasing plan for the project and this provides a level playing field for contractors bidding the project.

It is apparent that the shorter the repair duration, the less impact there will be on the operation and income stream of the facility. However, there are opposing factors that need to be considered. A shorter duration will require that more parking spaces be taken out of service for each phase. On the other hand, the more phases you have, the lower the number of parking patrons that will be displaced for each phase but at a higher total repair cost. The higher construction cost is due to the additional overhead in mobilization costs for each phase, providing routing, signage, barricades, etc.

In summary, a more complete phasing plan is needed for cost-effective pricing from contractors. In addition to planning for the repair items, consideration should be given to parking stakeholders. Items should include layout of repair phasing, traffic circulation patterns, direction and signage, and steps to maintain the expected level of service including dust, noise and cleanliness control. ■



Before and after parking garage concrete patching and traffic coating installation. Photo provided by Chamberlin Roofing & Waterproofing.

To continue reading article, visit: https://www.chamberlinltd.com/articles/parking-facility-restoration-five-factors-consider-when-restoring-existing-parking-facilities/

This article was originally published in SWR Institute's Applicator magazine.

Nam Shiu is a Senior Vice President and Walker's Senior Director of Restoration Resource Group. He has over 35 years of experience identifying contributing causes of noted distresses and construction related defects. Nam has worked with building owners, property management companies, insurance companies, healthcare facilities and government agencies. Currently, he is focusing on façade and curtain wall evaluations, building leakage evaluations, distress investigation, expert witnessing and repair design for corrosion related deterioration. Nam can be reached at nshiu@walkerconsultants.com.

Larry Susmarski is a Restoration Consultant and Project Manager with Walker Consultants. He is responsible for project management and has specialized expertise in restoration of facilities. Larry is especially strong with large, complex projects relative to maintaining budgets and schedules. As a project manager, his primary responsibility is providing clients with expertise in condition evaluations and assessments, restoration engineering, evaluation of construction materials, corrosion protection and due diligence studies. Projects include parking facilities, plazas, buildings, façades and other structures. With over forty years of restoration experience, he has been involved in over 500 Walker restoration projects. Larry can be reached at lsusmarski@walkerconsultants.com. www.walkerconsultants.com

Chamberlin Receives Three National Awards for Excellence

The Associated Builders and Contractors (ABC) National Excellence in Construction (EIC) program honors the nation's most innovative and high-quality construction projects, safety programs and diversity programs. Chamberlin Roofing and Waterproofing received three awards at this year's 29th Annual Excellence in Construction Awards banquet on March 27, 2019, in Long Beach, California.

Contractor members compete for honors for their outstanding construction projects across the nation. Chamberlin's balcony restoration on The Querencia in Austin, Texas, earned a first-place Eagle Award. Chamberlin installed nearly 190,000 square feet of waterproofing products for this 38-acre, resort-style retirement community. Despite challenges such as terrain obstacles, unknown conditions and time constraints, the crew completed this project in 20 months while keeping the comfort of the residents as a priority. Teamwork, innovation and proactive planning made this award-winning project a success for the whole team.

Another of Chamberlin's balcony restoration projects received accolades from ABC. The Buckingham is a four-story senior living community located in the center of Houston, Texas. Due to unknown issues during original construction, the waterproofing and flashing details installed on the balconies

Associated Builders and Contractors awarded Chamberlin for project and safety excellence.

failed, allowing water infiltration that caused extensive damage over the years. Chamberlin fully restored and waterproofed 144 balconies at The Buckingham. During the nearly two-year project, Chamberlin enhanced productivity and streamlined installation approaches to ultimately save time and money. An ABC Pyramid award was presented to Chamberlin for their work restoring The Buckingham balconies.

The ABC National Safety Excellence Awards recognize companies who exhibit a continued commitment to jobsite safety and whose safety performance and programs are judged to be exemplary by the ABC National Environment, Health & Safety (EH&S) Committee. Award categories are based on a company's total work hours per calendar year and placement within the North American Industry Classification System (NAICS). Chamberlin Roofing & Waterproofing was honored to receive an ABC National Safety Merit Award for their comprehensive safety program, performance and culture.

Safety is the primary focus on every job undertaken at Chamberlin. Safety training and education are key elements of Chamberlin's safety program and culture. Two of Chamberlin's safety coordinators have achieved their Certified Safety and Health Official (CSHO) certifications. The CSHO Construction Program was developed to equip construction industry professionals who are responsible for jobsite safety and supervision with a solid foundation in regulatory knowledge. This certification requires more than 200+ hours of specific OSHA regulatory training. Chamberlin commends Edgar Vilchis and Jorge Hermosillo for their accomplishments and recognizes the added value they bring to the company's safety program and processes. ■

Chamberlin was awarded a first-place ABC Excellence in Construction award for their balcony restoration on The Querencia in Austin, Texas.

Chamberlin safety coordinators completed over 200 hours of OSHA training to become Certified Safety and Health Officials.

PROJECTS IN PROGRESS

CHAMBERLIN
Roofing & Waterproofing

LOCATIONS:

Call the nearest local office or 1-800-749-1432

HOUSTON
7510 Langtry
Houston, TX 77040
Ph. (713) 880-1432
Fax (713) 880-8255

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2170 Diplomat Drive
Farmers Branch, TX 75234
Ph. (214) 273-9110
Fax (214) 273-9120

AUSTIN
2755 Business Park Drive
Buda, TX 78610
Ph. (512) 275-1600
Fax (512) 523-9350

SAN ANTONIO
13111 Lookout Run
San Antonio, TX 78233
Ph. (210) 822-6536
Fax (210) 822-8211

OKLAHOMA CITY
912 Messenger Lane
Moore, OK 73160
Ph. (405) 680-0506
Fax (405) 680-0508

TULSA
10828 E. Newton Street, Ste. 117
Tulsa, OK 74116
Ph. (918) 439-0055
Fax (918) 439-0067

Also licensed in Arkansas, Louisiana and New Mexico.

1430 Texas Avenue S. - College Station, TX
Remedial Waterproofing
Contract Amount: $350,000 (approx.)
Owner: Retail Properties Group
General Contractor: Chamberlin Roofing & Waterproofing
Scope of Work: Removal and replacement of traffic coating, sealants and expansion joints
Project Description: Retail center parking garage

TAMU Agriculture Building #5 – College Station, TX
New Construction Roofing
Contract Amount: $500,000 (approx.)
Owner: Texas A&M University
Architect: Randall Scott Architects
General Contractor: SpawGlass
Scope of Work: Installation of wood blocking, base wall, canopy and curb flashing and sheet metal, hot-modified roofing, PVC membrane and metal roof panels
Project Description: Four-story higher education building

Spring ISD - Twin Creeks Middle School – Spring, TX
Roof Replacement
Contract Amount: $800,000 (approx.)
Owner: Spring Independent School District
Architect: AUTOARCH Architects LLC
General Contractor: Tellepsen
Scope of Work: Removal of existing modified bitumen roof system and installation of base wall and curb flashing and sheet metal, TPO roofing, PVC membrane roofing and expansion joints
Project Description: School building

UTHSC SA Barshop – San Antonio, TX
New Construction Waterproofing
Contract Amount: $700,000 (approx.)
Owner: The University of Texas Health Science Center of San Antonio
Architect: Alamo Architects
General Contractor: Vaughn Construction
Scope of Work: Installation of traffic coatings, rigid insulation, air barrier, metal flashing, joint sealants and expansion joints
Project Description: Institute for longevity and aging studies

UHS Tower Expansion Joint Replacement – San Antonio, TX
Remedial Waterproofing
Contract Amount: $400,000 (approx.)
Owner: University Health System
Consultant: R-S-C-R, Inc. Consulting Engineers
General Contractor: SpawGlass
Scope of Work: Expansion joint removal and replacement
Project Description: Million-square-foot Sky Tower

St. Arnold – Austin, TX
New Construction Waterproofing
Contract Amount: $300,000 (approx.)
Owner: Transwestern
Architect: WB Architects
General Contractor: Martines Palmeiro Construction
Scope of Work: Installation of drainage composite, sheet waterproofing, fluid-applied waterproofing, traffic coating, sheet metal flashing, firestopping and joint sealants
Project Description: Garden-style apartment complex

Saint Johns West Apartments – Austin, TX
New Construction Waterproofing
Contract Amount: $400,000 (approx.)
Owner: St. Johns West LLP
Architect: WB Architects
General Contractor: Journeyman Construction, Inc.
Scope of Work: Installation of fluid-applied and pre-applied sheet waterproofing, hot-modified roofing and firestopping
Project Description: Multi-family complex

Scheels Grandscape – Lincoln, TX
New Construction Roofing
Contract Amount: $1,200,000 (approx.)
Owner: Scheels All Sports, Inc.
Architect: R. L. Engebretson
General Contractor: Sampson Construction Co., Inc.
Scope of Work: Installation of TPO roofing, flashing and sheet metal
Project Description: Sporting goods store

First Baptist Church Arlington Huff Wing – Arlington, TX
Roof Replacement
Contract Amount: $350,000 (approx.)
Owner: First Baptist Church of Arlington
General Contractor: First Baptist Church of Arlington
Scope of Work: Removal of a built-up roofing system and installation of cap wall and curb flashings, TPO roofing, flashing, sheet metal and subroof
Project Description: Mixed-use development for classes and meetings

UCO North Hamilton Annex – Edmond, OK
New Construction Roofing and Waterproofing
Contract Amount: $750,000 (approx.)
Owner: The Board of Regents of the Regional University System of Oklahoma by and through the University of Central Oklahoma
Architect: Studio Architecture
General Contractor: JE Dunn
Scope of Work: Installation of air barrier, joint sealants, site and paving sealants, PVC roof system, metal wall panels, soffit panels, metal coping, gutter, downspouts, expansion joints and roof hatch
Project Description: Multi-use sports complex

For a complete list of specialty contracting services, visit www.chamberlinltd.com.

ROOFING/SHEET METAL
- Modified bitumen/BUR
- Single-ply
- Reflective coatings
- Vegetative roofing
- Metal standing seam
- Roof related sheet metal
- Tile

WATERPROOFING/CAULKING
- Joint sealants
- Membrane waterproofing
- Elastomeric wall coatings
- Traffic coatings
- Expansion joints
- Dampproofing/flashing
- Water repellents/metal flashing

BUILDING/GARAGE RESTORATION
- Concrete/masonry restoration
- Exterior cleaning & coating
- Epoxy & grout injection
- Bearing pad replacement
- Structural repair
- Paver repair & replacement

ROOF MAINTENANCE/LEAK REPAIR
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- Roof & building envelope surveys
- Proactive Roof Asset Management
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