INVITATION FOR BIDS
CCK-2387-19
CAER Re-Caulk Exterior Precast Stone Facade
ADDENDUM # 1
3-13-19

ATTENTION: This is not an order. Read all instructions, terms and conditions carefully.

IMPORTANT: BID AND ADDENDUM MUST BE RECEIVED BY 4-5-19 @ 3:00 P.M. LEXINGTON, KY TIME

Bidder must acknowledge receipt of this and any addendum as stated in the Invitation for Bids.

Please note the revised bid date 4-5-19.

Enclosed is the revised specifications.

Enclosed are the drawings requested at the Pre-Bid.

Enclosed is the sign-in sheet from the Pre-Bid.

OFFICIAL APPROVAL
UNIVERSITY OF KENTUCKY

Jim Sutton
Contracting Officer / (859) 257-5406.

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ARTICLE 1  GENERAL INFORMATION

1.1 These Special Conditions are intended to modify, supplement, or delete from, applicable Articles of the General Conditions.

1.2 Where any Article of the General Conditions is supplemented by these Special Conditions, the Article shall remain in effect and the supplement shall be added thereto.

1.3 Where Special Conditions conflict with General Conditions, provisions of the Special Conditions take precedence.

ARTICLE 2  FIELD CONDITIONS

2.1 Contractor will secure all data at the site of the building such as:

2.1.1 Grades of lot, convenience of receiving and sorting of material, location of public services, and other information, which will have a bearing on making their proposals (or on the execution of the Work if awarded the Contract).

2.1.2 No allowance will be made for failure of the Contractor to obtain such site information prior to bidding.

ARTICLE 3  OWNER'S PROJECT MANAGER

3.1 The Owner's Project Manager during construction shall be the designated University of Kentucky Physical Plant Division employee who is in charge of the Project.

ARTICLE 4  CONSULTANT

4.1 Wherever in these Contract Documents reference is made to the Consultant, it shall be understood to mean the University of Kentucky, Campus Physical Plant Division or its duly authorized representative.

ARTICLE 5  GEOTECHNICAL REPORT

5.1.1 Not Applicable

ARTICLE 6  TIME FOR COMPLETION

6.1 The time for Final Completion and site clean-up shall be within 60 working days unless an extension is agreed to by the Owner.

ARTICLE 7  LIQUIDATED DAMAGES

7.1 For undocumented or unapproved delays in the completion of this project over 30 days or appended completion dates, the Owner will charge the contractor and extract from the final payment, liquidated damages in the amount of $100/day.

ARTICLE 8  SUBMITTALS AND SHOP DRAWINGS

8.1 Following the signing of the Contract and prior to the actual beginning of Construction, the following items may be required by the Owner.

8.1.1 Procedures to be used in executing this project.
8.1.2 Construction Schedule in a line item/bar chart formats showing anticipated starts, duration, and completion of all major items or disciplines of work.

ARTICLE 9 PLANS, DRAWINGS, AND SPECIFICATIONS

9.1 The successful Contractor will receive one set of plans (if required) and specifications "to build by." Contractor will be required to pay for cost of duplication for all sets required over and above this amount. The Owner will duplicate the extra sets required and the Contractor will reimburse the Owner for the cost of reproduction. The cost for extra sets on this Project is $____.____ for each complete set of plans and specifications.

9.2 All drawings, specifications and copies, thereof, furnished by the Consultant, are the property of the University of Kentucky. They are not to be used on other Work.

ARTICLE 10 PROGRESS MEETINGS

10.1 In addition to specific coordination and pre-installation meetings for each element of Work, and other regular Project meetings held for other purposes, progress meetings may be held as outlined at the Pre-construction Meeting. Each entity then involved in planning, coordination or performance of Work shall be properly represented at each progress meeting. The following areas will be covered at each progress meeting:

10.1.1 Review of each entity's present and future needs including interface requirements, time, sequences, deliveries, access, site utilization, temporary facilities and services, Hours of Work, hazards and risks, house-keeping, change orders, and documentation of information for payment requests.

10.1.2 Discuss whether each element of current work is ahead of schedule, on time, or behind schedule in relation with updated progress schedule.

10.1.3 Determine how behind-schedule Work will be expedited and secure commitments from entities involved in doing so.

10.1.4 Discuss whether schedule revisions are required to ensure that current Work and subsequent Work will be completed within Contract Time.

10.1.5 Review everything of significance that could affect the progress of the Work.

10.2 Contractor shall prepare and submit at each progress meeting an updated schedule indicating Work completed to date and any needed revisions.

10.3 With the express purpose of expediting construction and providing the opportunity for cooperation of affected parties, progress meetings will be held and attended by representatives of:

10.3.1 The Owner's Project Manager
10.3.2 General Contractor (if applicable)
10.3.3 Contractor
10.4 A location near the site will be designated where such progress meetings will be held. The Project Manager will notify participants of the dates and times of the meetings.

ARTICLE 11 CRITICAL PATH CHART

11.1 Not Applicable
ARTICLE 12  WALK-THROUGH

12.1 After the "Work Order" is issued but before Work by the Contractor is started, a walk-through of the area is required to document the condition of the space, surfaces, or equipment. It is the responsibility of the Contractor for the scheduling of the walk-through with the Owner, the Consultant, and/or other interested parties.

12.2 During the walk-through, Contractor with the Owner shall document all damaged surfaces or other defective items that exist prior to construction.

12.3 Owner's Project Manager, a Representative of the user of the facility, the Contractor and the Consultant shall attend the walk-through.

12.4 Dated digital photo documentation of the walk-through is to be provided by the Consultant with copies distributed to all parties. All parties attending the walk-through agree on the list of existing building damages.

ARTICLE 13  RESIDENT INSPECTOR

13.1 Not Applicable

ARTICLE 14  FIELD OFFICE

14.1 A field office shall not be required for this Project.

ARTICLE 15  TELEPHONE SERVICE

15.1 A field telephone is not required for this project.

ARTICLE 16  CONSTRUCTION FENCE (IF AND WHEN REQUIRED)

NOTE: No fence posts will be allowed to penetrate blacktop surfaces. Manufactured stands and/or buckets containing concrete or other heavy material shall support such posts.

16.1 All fencing to comply with Section 3304.0 of the Kentucky Building Code except where the following requirements are more stringent: All job site perimeters fencing within 5 feet of a walkway, street, lot line, or public way shall be 8 feet in height.

16.1.2 All job site perimeter fencing more than 5 feet from a walkway, street, lot line, or public way shall be a minimum of 6 feet in height.

16.1.3 All fencing shall be of a woven material such as chain link or a solid type fence. Fencing shall include gates required for construction operations. Gates shall be lockable with both the Contractor's lock, and a lock provided by the Owner.

16.1.4 It shall be the Contractor's responsibility to determine the proper quality of materials and methods of installation of the fencing, with the understanding that it must be maintained in good condition, good appearance, rigid, plumb, and safe throughout the construction period. The fence does not have to be new material.
16.1.5 The Contractor shall be responsible for removing and replacing any fence sections and/or posts necessary for access to the site on a daily basis. The Contractor shall reset the fence and posts and assure that they are in place at the close of the working day.

16.1.6 Contractors and Subcontractors not complying with the requirements of this Article 16 shall be given written notifications via the Consultant. If compliance is withheld, the Contractor may be charged for Work done on his behalf provided approval is gained from the Owner prior to issuance of the charge.

Note: With Owner approval, plastic construction fence may be used in areas not close to pedestrian traffic. However, the plastic fence must be kept in a well-maintained condition including tying to posts at the top and the middle and having a wire threaded through the top of the fabric to keep the fence from drooping in the spans.

ARTICLE 17  PROJECT SIGN

17.1 No signs, except those attached to vehicles or equipment may be displayed without permission from the Consultant and the Owner’s Project Manager. No political signs will be permitted.

ARTICLE 18  PARKING

18.1 The University of Kentucky will make available for purchase by the Contractor (2) “(E) ” CONSTRUCTION PARKING PASSES. These passes may be purchased by the Contractor to be used by Contractor and/or the Contractor’s key subcontractors and personnel during construction period. The cost of each pass will be $___* per month and may be purchased from the Parking Office after the Contract is signed. Necessary documents required to purchase the passes will be available at the Pre-Construction Conference.

18.2 Parking for personal vehicles is available at Commonwealth Stadium 'K' Lots. Passes may be purchased on a pro-rated basis from the University of Kentucky Parking and Security Office for $___* per year per pass. No other parking will be provided on the campus of the University of Kentucky.

*At current fees.

ARTICLE 19  SANITARY FACILITIES

19.1 The Owner will designate toilets for the Contractor’s use. Should the Contractor or his employees not keep the facility clean, the Contractor will be required to provide toilet facilities at his cost.

19.2 Drinking water will be available in the building.

ARTICLE 20  ALLOWANCES AND RULES OF MEASUREMENT

20.1 See Specifications

ARTICLE 21  SEQUENCE OF CONSTRUCTION

21.1 Not Applicable
ARTICLE 22  CRANE & MATERIAL HOIST OPERATIONS

22.1 Contractor shall provide appropriate barriers around crane and material hoist to protect pedestrian and vehicular traffic around operating area. When crane is operating or moving, flagmen provided by Contractor shall be utilized to prevent pedestrian and vehicular traffic from crossing pathway of crane lift. Contractor's flagmen shall coordinate these activities with the appropriate security personnel.

22.2 Crane and material hoist shall be safely secured and inaccessible during non-operating hours. Contractor shall coordinate operation or erection of a crane or material hoist near the Medical Center with Medical Center Aeromedical Operations (med-evac helicopter).

22.2 Any damage to trees, shrubs, or plant material at the placement of crane or material hoist shall be repaired by tree surgery or replaced as directed by Consultant.

ARTICLE 23  UTILITIES

23.1 The Owner will provide water and electricity for this Project. The Contractor shall provide for all temporary taps, hoses, lines, boxes, lighting, and installation of the same for construction operations. Electricity shall not be used for heating purposes. In the event that the Contractor is wasteful with these utilities, the Owner shall charge the Contractor accordingly.

ARTICLE 24  CLEANING AND TRASH REMOVAL

24.1 The Contractor shall provide adequate trash containers of proper size. The Contractor shall remove all trash from the Project daily.

ARTICLE 25  BLASTING

25.1 There shall be no blasting under any conditions on University of Kentucky property unless specified in these Special Conditions.

ARTICLE 26  CUTTING AND PATCHING - NEW AND EXISTING WORK

26.1 New Work

Cutting and patching shall be done by craftsmen skilled and experienced in the trade or craft that installed or furnished the original Work. Repairs shall be equal in quality and appearance to similar adjacent Work and shall not be obviously apparent as a patch or repair. Work that cannot be satisfactorily repaired shall be removed and replaced.
26.2 Existing Construction

Refer to Architectural, Mechanical, and Electrical drawings for cutting and patching. All new Work shall be connected to the existing construction in a neat and workmanlike manner, presenting a minimum of contrast between old and new Work. Do all patching of the existing construction as may be required for the new construction to be done. Necessary patching, closing of existing openings, repairing, and touching up shall be included as required for a proper, neat and workmanlike finished Appearance. Any existing item that is to remain and is damaged during construction shall be replaced at the Contractor's expense.

ARTICLE 27 UNRELATED PROJECTS

27.1 Unrelated construction Projects may be under way during the course of the Work related to this Project. The Contractor for this Project must coordinate with any other contractors working if Work areas overlap.

ARTICLE 28 OWNER SUPPLIED MATERIALS

28.1 Not Applicable

ARTICLE 29 REMOVED SALVAGABLE ITEMS

29.1 The contractor shall dispose of all materials removed from the building that are not designated to stay.

ARTICLE 30 INTERIOR ENCLOSURE

30.1 Not Applicable

ARTICLE 31 UK COMMUNICATIONS

31.1 Not Applicable

ARTICLE 32 SMOKE DETECTORS/FIRE ALARM SYSTEMS - EXISTING AND/OR NEW FACILITIES

32.1 Contractor shall protect all smoke detectors in Work areas to prevent false alarms. The Contractor will be responsible for any false alarm caused by dust created in their Work areas or dust traveling to areas beyond the Work, past inadequate protection barriers. If there is a need for an existing or newly installed fire alarm system or parts of that system to be serviced, turned off, or disconnected, prior approval must be obtained from the Owner's Project Manager and notification given to the Campus Dispatch Office. The Contractor must follow the procedure outlined for Utility Outages and the contractor shall pay any documented charges charged by the responding fire department due to a false alarm. As soon as all Work is completed notification must be given to the Owner's Project Manager and to the Campus Dispatch Office prior to reactivation of the system. Prior to Final Payment to the Contractor, all protected smoke detectors will be uncovered and tested.
ARTICLE 33  SURVEYS RECORDS, REPORTS

33.1 General:

Working from lines and levels established by property survey, and as shown in relation to the Work, the Contractor will establish and maintain benchmarks and other dependable markers to set lines and levels for Work at each area of construction and elsewhere on site as needed to locate each element of the entire Project. The Contractor shall calculate and measure from the benchmarks and dependable markers required dimensions as shown (within recognized tolerances if not otherwise indicated), and shall not scale drawings to determine dimensions. Contractor shall advise trade contractors performing Work of marked lines and levels provided for their use in layout of Work.

ARTICLE 34  ALTERNATES

34.1 Not Applicable

ARTICLE 35 FIELD CONSTRUCTED MOCK UPS

35.1 Not Applicable

ARTICLE 36 STATEMENTS OF PRECAUTIONS

36.1 Not Used

ARTICLE 37 GUARANTEES AND WARRANTY

37.1 Provide special project warranty signed by Contractor, Installer, and Manufacturer, agreeing to replace/repair/restore defective materials and workmanship of work during warranty period.

ARTICLE 38 MAINTENANCE OF EXISTING FACILITIES

38.1 The building will remain in use and the Owner shall have access to the existing building(s) throughout the duration of the project. The contractor shall:

38.1.1 Coordinate construction activity to assure the safety of those who must cross the project site and shall cooperate with the Owner in minimizing inconvenience to, or interference with normal use of existing building and grounds by staff, students, other Contractors, or the public.

38.1.2 Provide and maintain the necessary barriers and accommodations for a completely safe route of accessibility.

38.1.3 Insure that all exits provide for free and unobstructed egress. If exits must be blocked, then prior arrangements must be made with the Owner’s Representative.

38.1.4 Conduct operation to prevent damage to adjacent building structures and other facilities, as well and in such a manner to protect the safety of building’s occupants.

38.1.5 Make special effort to prevent his employees from entering existing buildings for reasons except construction business.
ARTICLE 39  INSURANCE REQUIREMENTS

39.1  The Contractor shall carry and provide certificates of insurance certifying the following minimum insurance coverage:

1.  Workmen’s Compensation  Kentucky Statutes

2.  Public Liability  
    $200,000 per Person  
    $500,000 per Accident

3.  Property Damage  
    $200,000 per Person  
    $300,000 per Accident

4.  Vehicle Liability  
    $100,000 per Person  
    $300,000 Each Accident Bodily Injury  
    $50,000 Property Damage Each Accident

Or non-owned

ARTICLE 40  HOT WORK PERMITS

40.1  All work in occupied buildings on the University of Kentucky campus will require the contractor to obtain approval to perform “Hot Work” on site. Hot work is defined as being any operation involving open flames or producing heat and or sparks. This includes, but is not limited to: Brazing, Cutting, Grinding, Soldering, Thawing Pipe, Torch Applied Roofing, and Cadwelding. For the Contractor’s information only, a copy of the University’s Hot Work Permit and the Hot Work Permitting Procedure is included in this specification. The University is not responsible for the Contractor’s Hot Work and the Contractor is encouraged to have and use his own Hot Works Procedures. Regardless, the Contractor must have a Hot Works permit and get all approvals required prior to doing hot work which creates fire hazards.
Purpose

The purpose of this program is to establish written procedures to prevent fires resulting from operations involving open flames or from those operations that may produce heat or sparks. These procedures have been developed and are implemented in accordance with NFPA 51B, OSHA 1910.252, OSHA 1926.352.

Introduction

The University of Kentucky, Physical Plant Division, Administrative Office recognizes there is a potential for fire from hot work operations. Therefore this program is implemented to protect UK students, visitors, employees and property from fire resulting from hot work operations.

This program applies to the Administrative Office operations and those operations of contractors working under contract to this shop.

This program does not apply to areas that are specifically designated and equipped for such operations, i.e., maintenance shop’s designated welding areas. Hot work conducted outside of these controlled maintenance shop facilities should only be done when there is no other means of accomplishing the task.

Definitions

Hot Work - Hot work is defined as any temporary maintenance, renovation or construction activity using gas or electrically powered equipment, which produces flames, sparks, or heat that is sufficient to start a fire or ignite flammable/combustible materials.

Some examples of ignition sources are: open flame, torch, welders, molten slag or metal, or sparks from such work.

Permit - a HOT WORK PERMIT will be required when work requires the use of a flame, sufficient heat or sparks to generate or serve as a source of ignition.

Permit Issuer - the contractor or their designee, is responsible for all hot work operations, program compliance, and for issuing the Hot Work Permit.

Fire Watch - a person who maintains vigilance looking for the presence of fire or hazardous conditions within the hot work area before and at least 30 minutes after the hot work has ceased. The fire watch personnel shall be trained in the use of an appropriate fire extinguisher, familiar with the facility and equipment, know the procedure for
sounding a fire alarm and calling the Delta Room. A fire watch is required as precaution to protect life and property from fire.

**Crew Leader** - the contractor assigned leader of a group of employees assigned to a designated job.

**Crew Supervisor** - the individual responsible for the work performed by more than one crew of employees.

**Superintendent** - the individual responsible for the daily operations. This individual will oversee the work of one or more supervisors and their respective crews.

**Hot Work Operations**

For the Administrative Office the following operations have been identified as hot work operations. These are activities that occur away from the designated workshop.

1. Welding work being conducted by contractor
2. Soldering work being conducted by contractor

**Hot Work Permit System**

A hot work permit system will be implemented in the Administrative Office. The procedures for the issuance of the permit can be found in the flowchart (Attachment A).

**Outside Contractors Responsibility (Contracted By The Administrative Office)**

Periodically the Administrative Office will contract work to outside firms. The project manager or designee for the Administrative Office will require contractors to provide a hot work program, where applicable. The contractor’s hot work program or similar plan must be equal to or better than the Administrative Office program. If the contractor does not have a program the following Administrative Office Hot Work Program may be used.

**Hot Work Procedures**

Prior to commencement of any work order in which a hot work operation will be undertaken, the project manager his designee will determine if the fire suppression system will need to be taken out of service. If the fire suppression system will be taken out of service while hot work is being performed, the approval of the University Fire Marshal’s Office must be obtained in advance.

If the fire suppression system will not be taken out of service, the following steps will be taken:
1. The procedures as indicated on the Hot Work Permit (Attachment B) will be performed by the contractor or his designee before hot work begins.

2. The Project Manager will have the Delta Room take out of service the fire alarm system in the affected area, if necessary.

3. The Project Manager or his designee will have the contractor representative inspect the area before the contractor issues a Hot Work Permit.

4. Post the Hot Work Permit in the work area. It will remain posted until completion of the job or the duration of the permit.

5. Conduct the hot work operation.

6. Upon completion of the hot work, the contractor will return the used Hot Work Permit to the Project Manager or designee. If the fire alarm system was taken out of service, the Project Manager will notify the Delta Room to put the system back in service.

7. The Project Manager or designee will return the Hot Work Permit to the PFD Safety Office.

Employee Training

Initial Training

Initial training to employees in the Administrative Office is provided on hot work operations within 30 days of assignment. A roster of employees receiving the training can be found in Attachment C.

Refresher Training

Employees will receive refresher training in hot work on an as needed basis. This refresher training will cover information in the initial training and any new requirements.

NOTE: ATTACHMENT C NOT INCLUDED IN THIS DOCUMENT
ATTACHMENT A
FLOW CHART OF HOT WORKS PERMIT SYSTEM

Hot Work Permitting

Receipt of Job Order

Will Hot Work be Conducted?

YES

Supervisor Obtains Approval from UK Fire Marshall's Office

WILL Air Suppression System need to be Disabaled?

YES

NO

WILL Fire Alarm System Need to be Taken Out of Service?

YES

Crew Leader Notifies Delta

NO

Crew Leader Completes HW Permit at Jobsite Prior to Initiation of HW

Superintendent or Designee Signs (waives) HW Permit

HW Commences

HW completed

Crew Leader Contacts Delta (if applicable)

Completed Permit Forwarded to Crew Supervisor at End of Shift

The HW Permit is valid for no more than one day (24 hours) after issuance.

Hot Work activities that have ceased for greater than 1 hour and recur on the same day would require the recertification of the jobsite by the Crew Leader using the checklist elements on the right side of the HW Permit.

A HW Permit may be issued for multiple building areas at the discretion of the Superintendent. However, the aforementioned requirements should apply for these situations. All areas must be listed on the HW Permit.

Any changes within the work environment that would pose a fire hazard while hot work activities had ceased would require a recertification of the jobsite prior to hot work activity resuming. This would be done by the Crew Leader in using the checklist elements on the right side of the HW Permit. This is important if less then 1 hour had elapsed since the hot work activities had ceased.
HOT WORK PERMIT
UNIVERSITY OF KENTUCKY PHYSICAL PLANT DIVISION
Administrative Office
Contractor Name: FOR WELDING, CUTTING AND BRAZING WITH PORTABLE GAS OR ARC EQUIPMENT

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<td>Location:</td>
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<tr>
<td>Work to be done:</td>
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<tr>
<td>Special precautions:</td>
<td></td>
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<tr>
<td>Name of person doing Hot Work:</td>
<td></td>
</tr>
<tr>
<td>The location where this work is to be done has been examined, necessary precautions taken, and permission is granted for this work. Permit expires:</td>
<td></td>
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<tr>
<td>Signed: (Superintendent or designer)</td>
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**Final Check**

Work area and all adjacent areas to which sparks and heat might have spread (including floors above and below and on opposite side of wall(s)) were inspected 30 minutes after the work was completed and were found fire safe.

Signed: (Fire Watch individual)

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**FOR OTHER HOT WORK OPERATIONS**

**DESCRIPTION OF HOT WORK OPERATION**

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<tr>
<td>Name of person doing Hot Work:</td>
<td></td>
</tr>
<tr>
<td>The location where this work is to be done has been examined, necessary precautions taken, and permission is granted for this work. Distance of work from nearest building: ft. Distance of work from nearest window: ft. Permit expires:</td>
<td></td>
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<tr>
<td>Signed: (Superintendent or designer)</td>
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**Final Check**

Work area and all adjacent areas to which sparks and heat might have spread (including floors above and below and on opposite side of wall(s)) were inspected as indicated above after the work was completed and were found fire safe.

Signed: (Fire Watch individual)

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**Precautions**

- Spalled in service
- Cutting and welding equipment in good repair
- Data notified, if applicable
- Within 35 ft of work area or greater if sparks exceed 15 ft.
  - Floors swept clean of combustibles
  - Combustible horizontal surfaces wet down, covered with damp sand, metal or other shields
  - All wall and floor openings covered
  - Covers suspended beneath work to collect sparks

**Work on Walls or Ceilings**

- Construction non-combustible and without combustible covering
- Combustibles moved away from opposite side of wall
- Adjacent area evaluated for possible heat conduction

**Work on Enclosed Equipment**

- Evaluated as a Confined Space
- Equipment cleaned of all combustibles

- First Watch
  - To be provided during and after operation
  - Supplied with extinguisher and/or small hose
  - Trained in use of equipment and in operating fire alarm
PROJECT OVERVIEW
There are various window leaks on the perimeter of the CAER Lab 1. The building is over 40 years old and many of the precast joints, window perimeters, and other caulk-joints have deteriorated to the point of no longer being waterproof. This project is to resolve leaking caulk joints and remedy other situations listed below.

Project objective and intent includes, but is not limited to:
1. Re-caulking the specified areas of the building exterior,
2. Building exterior cleaning and waterproofing,
3. Replacing failed insulated glass units (IGU’s) in existing windows,
4. Drywall repairs associated with and/or created by IGU replacements,
5. Drywall repairs created by previous window and wall leaks,
6. Painting repaired drywall areas,
7. Window cleaning inside and out, and
8. Site restoration.

Section I – General

1.1 Protocol

A. University of Kentucky protocol (includes, but is not limited to):
   1. If required, a staging site will be determined prior to the start of the project.
   2. *Permission is required for more than two contractor vehicles on site.
   3. No parking under trees in the drip-line of the branches.
   4. All turf damages shall be returned to the pre-project condition (See Section I Paragraphs 1.12 and 1.14).
   5. *Private vehicles parked on campus must have parking permits obtained from the Press Avenue Parking Division office and be parked at designated parking lots on campus.
   6. *A private vehicle can be one of the two allowed in the staging area.
   7. *Without permission, parking on or blocking walkways and sidewalks by contractor vehicles is absolutely prohibited. Parking fines will be imposed.
   8. The University of Kentucky is a smoke free campus; smoking is allowed on city streets.
   9. Vulgar language and/or behavior is not acceptable on campus.
   10. With approval, after hours and weekend work is allowed, and
   11. **At any time, projects can be stopped and rescheduled due to disrupting classroom work.
   12. *Classroom finals study-week (dead week) on campus is “quiet week” on campus with limited activity and noise making by contractor work, and
   13. *The following week is “Finals Week” and no construction noise is allowed that creates problems for exam taking anywhere on campus
14. Depending on contractor- equipment and job requirements, protective staging fencing may be required (See Special Conditions – Article 16; Construction Fencing).

* Not Applicable at CAER
** Work may possibly be interrupted due to a laboratory process(es) at CAER

1.2 Vendor Appearance and Conduct

A. All contracted vendors performing work for the University of Kentucky must dress in a professional manner. A company uniform is preferred but, if not provided, workers should wear work-attire that is appropriate and not provocative or risqué. Casual sportswear such as t-shirts, tank tops, or shorts, are not appropriate apparel (this includes inappropriate statements and/or images on clothing). The attire is intended to portray the image of a well-groomed and neat appearing individuals. Contracted Vendors and employees are expected to have good personal hygiene habits.

B. It shall be the Contractor’s responsibility to control the conduct of all his employees while on the University’s campus and professional conduct must be exercised at all times. Loud and disruptive conduct will not be tolerated. Cursing and abusive language is prohibited. Further, offensive language, sexual or other types of harassment of University students, faculty, staff, or visitors may result in immediate and permanent dismissal of the offending person(s) from the campus. Courtesy to others must be exercised, displaying a good attitude and character. It must be understood that any worker using or under the influence of alcohol and/or controlled substances (other than prescription medications) will not be allowed on the campus of the University of Kentucky and will be permanently dismissed from working on campus.

1.3 Safety and OSHA Requirements

A. For all work operations and activities on the job site, whether on the ground, in a building or on a roof, the Contractor shall establish, train and/or instruct his/her workers and sub-contractors to comply with all safety requirements and/or implied by local, state and federal regulations.
   1. Experienced, qualified workers shall do all work in a professional manner.
   2. Industry standards shall dictate acceptance of all equipment, application techniques, etc.
   3. As required for safety considerations, Contractor should advise field personnel concerning the use of respirators, fresh air masks, protective clothing, etc.
   4. The contractor is responsible to inform his employees, sub-contractors, or vendors of the following:
a. Any known chemical hazard that they may encounter during work on this project:
b. If required, have available for each known hazardous chemical precautionary protective measures to be taken under normal conditions and emergencies.
c. Each contractor or sub-contractor bringing chemicals on-site must provide appropriate hazard information for the substances, including Material Safety Data Sheets (MSDS), labels, and precautionary measures to be taken when working with or around such substances.

5. The Contractor and/or sub-contractors are responsible for the security of their own materials, tools, and equipment on the project site. The owner is not responsible for theft or vandalism to any such tools, material or equipment.

1.4 Performance Requirements

A. The Contractor is expected to provide competent and experienced workers on site during the entire project. There shall be on site supervision for all phases of the project. Inferior work will be rejected and any such work removed and redone to the satisfaction of the Owner. The Owner’s decision shall be final.

B. Any drawing, sketch, photo, or specification is intended to establish basic project details. The Contractor will be expected to make modifications to meet field conditions and to ensure the fitting of components or construction results. Owner’s approval of major modifications will be required.

C. The Contractor shall have a minimum of ten (10) years’ experience in work that is included in this specification.

1.5 Coordination

A. Coordinate work of this section with interfacing work for proper sequencing and building interior protection. Contractor to ensure weather resistance of the building during the project and protection of interior materials and finishes.

1.6 Delivery, Storage and Handling

A. Packing, Shipping, Handling, and Unloading: Contractor shall protect all products from damage during these processes.

B. Acceptance at Site: Owner and Contractor shall examine each component and accessory as delivered and confirm that material and finish is undamaged. Damaged material shall be rejected.
C. Storage and Protection: Contractor is responsible for the storage and protection of all materials during project duration.

1.7 Demolition and Disposal

A. The contractor shall be responsible for the removal and disposal of all items associated with and as described, removed, and/or renovated by this specification. See paragraphs 1.8, 1.9, and 1.10 for hazardous waste disposal.

B. Should the contractor encounter hazardous materials at any given location other than those listed or described paragraphs 1.8, 1.9, and 1.10 in this specification, he shall cease work at that location, notify the Project Manager of the hazard, and continue with work at other locations. The Owner shall be responsible for the abatement/removal of the material.

C. Should there be building defects encountered (other than the normal and visual) in the process of the work of this specification and not of his making, the contractor shall notify the Project Manager and, as possible, continue the work at other locations. The Project Manager and the Contractor shall mutually agree on a solution to the unexpected situation.

1.8 Lead Paint Abatement
(Not Anticipated but if Applicable)

A. Free-falling lead chips and removed lead-paint debris
   The University of Kentucky will supply approved containers to the contractor for the disposal of lead paint chips and lead debris. A program has been developed and used in accordance with the OSHA standard 29CFR1926.62 (as adopted by the Kentucky OSH Program). The following are the procedures used by the University of Kentucky in the collection and disposal of the lead containing materials. The contractor should utilize these.
   1. In the area where lead paint chips might collect, the area is to be covered with burlap or a similar material.
   2. The accumulated lead chips and debris is to be periodically emptied into the UK provided containers. The burlap and/or similar material can be re-used.
   3. At the end of the project, the UK project manager will arrange for the pick-up and disposal of the sealed container(s) holding the lead containing chips and debris.

1.9 Asbestos Sampling
(Not Anticipated but if Applicable)

A. Due to the age of the building and all work being on the exterior, asbestos is not expected. However, the contractor should take necessary precautions.
1.10 PCB’s
(Not Anticipated but if Applicable)

A. Lab 1 was constructed in 1975. PCB’s were utilized primarily between 1950 and 1980, it is assumed that any putty found in the working area do not contain PCB’s. However, the contractor should take necessary precautions.

1.11 Quality Assurance

A. Any drawing, sketch, photo or specification is intended to establish basic project details. The contractor will be expected to make modifications to meet field conditions and to ensure the fitting of components.
   1. Make modifications only to meet field conditions and to ensure fitting of system components.
   2. Obtain Owner’s approval of major modifications.

B. General Contractor
   The contractor and his sub-contractors are expected to have satisfactorily been in business doing similar work as described in this specification for a minimum of 10-years. If requested, he should be ready to provide examples of his completed projects and customer information.

C. Waterproofing and Caulking Contractor
   Company specializing in or having proven experience in the specified work.

1.12 Collateral damages

A. The contractor is responsible for the repair and/or replacement of building exterior elements and/or landscaping damaged during the project, and must be repaired prior to final payment. This means to return all identified damages minimally to the existing condition prior to the start of the construction process. This includes, but is not necessarily limited to plantings, brick pavers, and sidewalks around the building. Repairs must meet the approval of the Project Manager. (See Section I Paragraphs 1.13 and 1.14).

1.13 Access

A. Scaffolding and/or other means of elevating the workers are acceptable to access the exterior of the building. It is expected that cleanliness and care will be exercised to protect the surrounding sidewalks, turf, sections not being worked on, as well as fencing and signage redirecting/diverting pedestrian traffic from the work zone.
1.14 Allowance - Landscape and Hardscape Damages

A. Whether by accident or by necessity, for any work requiring trucks and/or especially lifts at a work site, damages can occur to existing hardscape and/or landscape. The Contractor shall include as part of the total bid, an allowance of $2,000 for landscape and hardscape damages created by his work on this project. The Owner and the contractor will inspect the site before and after the project and determine if such damages occurred and produce a repair list for the Contractor to restore. The restoration shall include, but not be limited to, turf, trees, manholes, water pits, blacktop, concrete (including walkways), and buildings. The Owner and the Contractor will review and agree on a final cost to be applied to the allowance.

1. If the restoration requires more (or less) than the allowance, the contractor is to charge (add to the final billing by prior approved Change Order) or reimburse (subtract from the final billing) prior to submittal of the final invoice.

Note: Designated trees in the work area are to be fenced off to prevent undue damage to the trunks and roof systems (see Paragraph 1.15). Planting that are to (or may) be removed and not replaced as part of the project will be identified. Once this is completed the Contractor will be responsible for damages to the remaining plantings unless prior agreement as to the plantings being in the way of the project. All damages for which agreement has not been obtained, will be considered collateral damages. Damages to the building(s), turf, walkways, etc. is collateral damage.

1.15 Tree Canopy/Tree Root Protection Zones

A. Prior to the start of the project, the contractor shall meet with the Owner to review the project execution. The meeting will:

1. Determine the need for protective fencing to protect the root zone(s).
2. The Contractor shall be responsible for the installation and maintenance required fencing around tree protection zones.
3. The Contractor shall remove fencing upon completion of construction.
Section II – Building Recaulking

Note: Due to the building surface leaks, the surface cleaning and waterproofing of the building is to be completed after all re-caulking has been completed and the caulk sufficiently set so as not to damage the caulk joints. See Section III – Cleaning and Waterproofing.

2.1 Existing Conditions

A. The Bidder/Contractor must familiarize himself with the physical conditions of the project as to the layout of the property, the access to the building, the ramifications of building occupancy during the project, fire trucks and firemen access to the building, and pre-construction conditions of the landscape and surfaces around the building (See Paragraph 1.13 for allowance to repair collateral damages to turf, landscaping, and hardscape).
   1. The bidder/contractor will be responsible for the return to equal or better condition for items damaged or destroyed.

2.2 Exterior Sealant Joint Applications:

A. The contractor is expected to re-caulk any and all existing caulk joints on the building other than those expressly identified as not to be re-caulked.

B. Applications:
   1. Control and expansion joints in cast-in-place concrete.
   2. Joints between architectural precast units.
   3. If designated, joints between precast and metal facades.
   4. If designated, joints between concrete and frames of doors, windows, storefronts, louvers/grills and similar openings.

C. Re-caulking Unit Price for unspecified unanticipated re-caulking
   For unexpected and unspecified re-caulking required by the contractor, in his bid documents he shall provide a unit price per linear foot of caulk removed, the joint cleaned and prepared for caulk and caulk applied. The Contractor and the Owner will determine the linear feet of additional recaulking is to be done and shall have a written agreement prior to the additional re-caulking being undertaken. Upon submittal of the Contractor’s approved invoice, documents will be processed to pay for the additional recaulking.

2.3 Sealant application temperature

A. Surface temperatures should be 40 °F (5 °C) or above at the time the sealant is applied. If sealant must be applied in temperatures below 40 °F, refer to the sealant manufacturer’s instructions for applying sealants in cold weather. (For Dymonic 100 contact Tremco at www.tremcosealants.com. For their Guide for Applying Sealants in Cold Weather).
2.4 Caulk Joint Preparation

A. Mechanically remove existing sealant.

B. Clean joint surfaces to remove sealant remnants, all release agents, form-release agents, existing waterproofing, dust, loose mortar, paints, or other materials such as dirt, oils, wax, and contamination capable of affecting primer and sealant bond.

C. Surfaces shall be cleaned, depending on the type contamination, using wire brushing, grinding, and/or a non-corrosive and non-staining type joint cleaner recommended by the sealant manufacturer and compatible with joint forming materials.
   1. Sand blasting is discouraged unless the bidder/contractor can show that the surfaces are not damaged by the process.

D. Apply masking tape to adjacent surfaces when required to prevent damage or collateral application to surrounding surfaces especially in locations where constantly visible.

E. Protect elements surrounding the work of this section from damage or disfiguration.

2.5 Sealant Materials and Tools

A. Joint Backing
   1. Closed cell or reticulated polyethylene round foam backer rod oversized 25 to 50% larger than each joint width shall be used as joint backing to control sealant depth and to ensure intimate contact of sealant with joint walls when tooling.

B. Bond Breaker
   1. Where depth of joint will prevent the use of backer rod, an adhesive backed polyethylene tape (bond breaker tape) should be used to prevent three-sided adhesion; backing shall be dry at time of sealant application.

C. Masking tape
   1. Non-staining, non-absorbent tape product compatible with joint sealants and adjacent joint surfaces.

D. Primers
   1. The contractor shall use the sealant manufacturer’s recommended primers for porous and metal surfaces. The primer shall be a non-staining type, recommended by sealant manufacturer to suit application. (For Dymonic 100 use Vulkem Primer #191 Low-VOC on porous substrates and TREMprime Non-Porous Primer for metals or plastics).
E. Caulking tools
The Contractor is expected to have and use caulking tools with which to finish the caulking. Below is a recommended set; however, the Contractor is free to provide such from any provider. **Use of mechanical tooling is required.** Every person engaged in re-caulking is expected to have his own set of tooling.

![Image of Newborn Caulk Finishing Tool, Spatula, 5, 6, Sizes Model: Slick-1](image)

F. Sealant

<table>
<thead>
<tr>
<th>SEALANT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 50</td>
<td>Movement capability in percent of joint width. (Rated by Class per ASTM C920, with 50 meaning of joint movement of 50% of the linear width dimension of the sealant joint/bead).</td>
</tr>
<tr>
<td>Type S</td>
<td>Single Component.</td>
</tr>
<tr>
<td>Grade NS</td>
<td>Non-Sag or Gunnable used for vertical and non-traffic joints.</td>
</tr>
<tr>
<td>Aliphatic</td>
<td>UV stable</td>
</tr>
</tbody>
</table>

1. Urethane Caulk/Sealants:
   a. ASTM C920, Class 50, Type S, Grade NS (non-sag or gunnable), Aliphatic, urethane caulk for application on concrete, mortar, or aluminum. No exceptions.
   b. Proposed sealant: **Tremco Dymonic 100 or Owner approved substitute** (Contractor to provide product specifics for any substitute presented for approval).
2.6 Quality control

A. **Contractor’s Foreman shall, together with the Project Manager**, inspect a preliminary joint prepared to receive primer, backer rod and caulk for unsatisfactory conditions and witness the application of the sealant system. After Owner approval is given to proceed to other joint preparation and sealant system application, the **Contractor’s Foreman shall always verify that substrate surfaces and joint openings are clean and dry and ready to receive the sealant system application.**

B. After the joint has been prepared, the Project Manager will witness the installation of the backer rod and the caulk.

C. Do not proceed with the re-caulking project until the Project Manager has given permission based on the test application.

2.7 Sealant Installation

A. **Install primer and sealants in accordance with ASTM C 1193 and manufacturer's instructions.**


*This guide provides information and guidelines for consideration by the designer or applicator of a joint seal. It explains the properties and functions of various materials, such as sealant, sealant backing, and primer, among others; and, procedures such as, substrate cleaning and priming, and installation of the components of a sealed joint. It presents guidelines for the use and application of the various materials, design of a sealant joint for a specific application, and environmental conditions and effects that are known to detrimentally affect a sealant joint.*

B. Install joint backer rod to maintain the following joint ratios:
   1. Joints up to 1/2 inch (13 mm) Wide: 1:1 width to depth ratio.
   2. Joints Greater than 1/2 inch (13 mm) Wide: 2:1 width to depth ratio; **maximum 1/2 inch joint depth.**
   3. For joints that are wider than 1” (25 mm) contact sealant manufacturer (for Dymonic 100 contact Tremco Technical Services or your local Tremco Sales Representative for details).

**Note:** Caulk joints should have an hour-glass cross-section profile to allow for expansion of the joints to prevent caulk pulling away from the substrate i.e. rubber band “stretching’ action at the center.

C. Install bond breaker where joint backing cannot used.

D. Primer application and sealant installation
1. Apply primer for sealant adhesion.
2. Allow primed surfaces to dry (at least one hour) before installing new sealants.
3. If primer is left exposed over 8 hours (sealants not installed), the joint must be re-primed.

E. Install sealants immediately after joint preparation and primer is dry.

F. For fillet beads, or angle beads around windows, doors, etc. the sealant shall exhibit a minimum surface contact area (Section II – Paragraph 2.5.C) of 1/4” (6 mm) onto each substrate, with provisions for release at the heel of the angle using backer rod or bond breaker tape.

G. Install sealant free of air pockets, foreign embedded matter, ridges, and sags.

2.8 Post-caulking Façade Cleaning

A. Remove masking tape (if used).

B. Clean adjacent surfaces soiled by sealant installation.

2.9 Caulking Project

A. Precast stone panel caulking

Whether indicated on the following details or not, all precast stone panels with horizontal and/or vertical caulked joints are to have the existing caulk-joints removed and replaced. Instructions for other locations that require or do not require recaulking are noted in paragraphs later in this specification. The following drawings and photos are demonstrative of the required overall caulking situation and not necessarily the exact or total number locations of all required re-caulking joints and/or conditions.

Note: There are several precast stone panels with cast-in-place rustication indentations not requiring caulking. Example below.
B. Perimeter Fixed-Window Caulking

1. Interior damages are occurring at windows where the bottom of precast stone panels above the windows have a biased-bottom edge angled (45°) toward the window and/or spandrel framing. The biased bottom includes a drip-edge kerf that is not efficient in preventing water washing over the window top-rail caulk joints as well as the window glass panes. In addition to the water washing over the window top-rail caulk joints, in many locations water appears to be penetrating behind the failed vertical precast caulk-joints and entering the top-framing of the window sill and the window system from above the windows and damaging the drywall in those locations. All windows with this type precast panel above must have the exterior window top-rail caulk joints replaced.

2. 

![Diagram of window head detail at pre-cast panels](image-url)
3. Windows and spandrels with a square-bottom (90°) precast stone panel with a kerf drip above that does not allow water to flow across the window top-rail caulk joints will not require the top caulk joint to be disturbed or replaced. Where side stiles/jambs meet a precast stone panel or concrete, those caulk joints are to be replaced.
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RECAULK EXTERIOR PRECAST STONE FAÇADE – 2018

HEAD DETAIL
HEAD JOINT FOR FIXED WINDOWS AT STAIRS "A" AND "B"

JAMB DETAIL
JAMB CAULK JOINTS AT FIXED WINDOWS AT STAIRS "A" & "B"

RE-CAULK ALL STILE/JAMB SIDES OF WINDOWS THAT MEET STONE FACES

CAULK JOINT TO REMAIN

FIXED WDW. & STAIRS "A" AND "B"

ALUM. WDW. FRAME

PRECAST CONC. PANEL

ALUM. WDW. FRAME

FIXED WINDOW & STAIR "A" AND "B"
4. Extraneous Window Caulking

At locations where past window-area leaks were occurring, attempts were made to prevent the leaking by applying to caulk to window and spandrel perimeters. All such caulking is to be removed and, if sealant is required at the affected joints/seams, recaulking shall be neatly installed. The following photos and drawing is indicative of these type situations.
C. Miscellaneous Precast Panel Recaulk Details

Note: These examples are typical and not necessarily all of such locations that will require re-caulking. The Contractor is to examine all caulk joint not specifically noted to be excluded and replace as needed.
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RECAULK EXTERIOR PRECAST STONE FAÇADE – 2018

GROUND FLR CAULK JOINT AT STAIRS A & B DETAIL

WINDOW SILL CAULK JOINT DETAIL
BIASED ANGLE CAULK JOINTS

REPLACE CAULK AND BACKER ROD

THIS INCLUDES 90° INSIDE & OUTSIDE CORNERS

HORIZONTAL PRE-CAST CAULK JOINTS
RECAULK EXTERIOR PRECAST STONE FAÇADE – 2018

WINDOW JAMB CAULK DETAIL

THE CAULK JOINTS ON THE TOP FACES OF THE PRECAST PANELS WILL BE RECAULKED AND COATED BY THE FOAM ROOFER.

THE CAULK JOINTS ON THE OUTWARD TOP FACES AND THE VERTICAL JOINTS OF THE PRECAST PANELS ARE TO BE RECAULKED BY THE CAULKING CONTRACTOR.

PRECAST PARAPET RECAULK DETAIL
D. Metal Siding
All vertical caulk joints between concrete and/or precast units and the metal exterior-siding are to be recaulked.
Section III – Cleaning & Waterproofing

3.1 Building Exterior

A. Surface Condition:
   1. The building façade has architectural pre-cast concrete panels, metal siding, and concrete.
   2. The precast and concrete has biological staining and general atmospheric soiling.

3.2 Building cleaning and preparation for waterproofing

A. Biological and atmospheric staining is to be removed.

3.3 Building Cleaning process

A. See Application process following at Paragraph 3.5.E.

3.4 Quality Assurance

A. For any cleaning process and product:
   1. Test a minimum 4 ft. by 4 ft. area on each type of façade material,
   2. Use manufacturer’s application instructions, and
   3. Let the test panel dry 3 to 7 days before inspection.

3.5 Building Surface Cleaners

A. Product Description:
   1. General Cleaning:
      Cleaner for light to moderate atmospheric and oxidation staining from dense masonry surfaces such as difficult calcium (concrete) stains, white scum and other and has reduced corrosive characteristics to minimize the potential for damage to unprotected non-masonry surfaces.
   2. Aggressive Cleaning:
      Cleaner for removing stubborn atmospheric and carbon staining from masonry and stone.

B. Products:
   1. Sure Klean Light Duty Concrete Cleaner (PROSOCO) – General Cleaning
   2. Enviro Klean SafRestorer Cleaner (PROSOCO) – Aggressive Cleaning
   3. PROSOCO, Inc., 3741 Greenway Circle, Lawrence, KS 66046. Phone: (800) 255-4255; Fax: (785) 830-9797. E-mail: CustomerCare@prosoco.com.
   4. Approved substitute products and manufacturers acceptable but must meet the qualities and properties of the proposed products.
C. Technical Data
1. Sure Klean Light Duty Concrete Cleaner
   a. FORM: Clear, straw-colored liquid
   b. SPECIFIC GRAVITY: 1.129
   c. FREEZE POINT: 12 degrees F (-11 degrees C)
   d. pH: 0.976 at 1 to 2 dilution
   e. WT/GAL: 9.39 lbs.
2. Enviro Klean SafRestorer Cleaner
   a. FORM: Clear, straw colored liquid with mild odor
   b. SPECIFIC GRAVITY: 1.11
   c. pH: 2.9
   d. WEIGHT/GALLON: 9.15 pounds

D. Application
1. Sure Klean Light Duty:
   a. Dilute 2:6 product to water
   b. Pre-wet the surface with clean water.
   c. Apply cleaner using a brush or roller. Gently scrub to improve results.
   d. Let cleaner dwell for 5 to 15 minutes. Gently scrub heavily soiled areas.
   e. Heated water (150 degrees F to 180 degrees F; 65 degrees C to 82 degrees C) may improve cleaning efficiency
   f. Do not let cleaner dry on the surface. If drying occurs, lightly wet treated surfaces with fresh water and reapply the cleaner in a gentle scrubbing manner.
   g. Rinse thoroughly with clean water using a fan spray tip (15 degrees minimum) and generating 400 to 1000 psi at a flow rate of 4 to 6 gallons per minute.
   h. If necessary, repeat steps b through g.
2. Enviro Klean SafRestorer
   a. Preliminary Testing
      • Depending on severity of soiling, Safety Klean may be diluted with up to three parts clean water.
      • Always pour cold water into empty bucket first, then
      • Carefully add concentrate.
      • Test a small area of each surface to confirm suitability, coverage rate and desired results before beginning overall application.
      • Let surface dry thoroughly before inspection.
   b. Cleaning Process
      • Working from the bottom to the top, use clean water to thoroughly pre-wet surface to be cleaned.
      • Apply Safety Klean liberally using low pressure spray, 50 psi max.
        ▶ Let the cleaning solution dwell 3–5 minutes then reapply.
        ▶ Light scrubbing of the surface improves cleaning results.
        ▶ Heated water (150 to 180°F; 65 to 82°C) may improve cleaning efficiency.
• Use high pressure rinsing equipment generating 400 - 1000 psi with a water flow rate of 6 - 8 gpm with a 15 - 45° fan spray tip.
• Do not let cleaning solution “dry into” the masonry.
• Thorough rinsing is extremely important.
• If solution starts to dry, reapply.
• Rinse with clean water from the bottom to the top, covering each section of the surface with a concentrated stream of water.

c. Caution!
• To avoid streaking on vertical walls, keep the wall below wet and rinsed free of cleaner and residues.
• Extended contact with the cleaning solution or its vapors may result in discoloration or damage.

E. Product and Application Information:
Call PROSOCO technical Customer Care (800-255-4255) or Regional Manager Mark Donze mark.donze@prosoco.com (330-322-7566) for confirmation of mix, pre-testing, and application of product.

3.6 Building Exterior Waterproofing

A. Waterproof fluid shall be Protectosil® CHEM-TRETE® 40 VOC by Evonik Corporation: 299 Jefferson RD; Parsippany NJ 07054; 800-282-0919. Local Representative is Jack Schwein, jschwein@fuse.net (513-289-4867).
1. Manufacturer representative shall provide testing, before and after the application of the waterproofing material, to prove performance and acceptance by the Owner.
2. Other Silane waterproofing manufacturers may present their product(s) and warranty process for this project but shall, in every detail and test result, equal or exceed that of Chem-Trete and must present their proof and conditions with their submittal. Substitution product requests must be submitted 14 days prior to bid date.
3. Chem-Trete BSM 40 VOC Technical Data
Protectosil CHEM-TRETE 40 VOC is a clear, colorless liquid containing isobutyltrialkoxysilane in alcohol.
   a. Color water white
   b. Active Substance isobutyltrialkoxysilane Active Content >50% by weight
   c. Solvent denatured ethyl alcohol
   d. Flash Point 54°F
   e. Density 7.0 lb/gal
   f. VOC 590 g/l

B. Delivery, Storage, and Handling
1. Packing and Shipping: Deliver products in original unopened packaging with legible manufacturer’s identification.
2. Storage and Protection: Comply with manufacturer’s recommendations.

C. Quality Control
   1. Manufacturer’s Field Services:
      a. The contractor shall engage the services of the Chem-Trete representative to:
         - Pre-test the precast and concrete of the building façade to determine application rate, and
         - Post-test the results of the waterproofing application for Warranty issue (see below).
   2. Environmental Requirements:
      a. Verify compatibility with curing compounds, patching materials, repair mortar, paints, sealants, etc. to be used on concrete surfaces to ensure compatibility with the water repellent. Maintain ambient temperature above 40 degrees F during and 24 hours after installation.
      b. Patching materials, caulking, sealing materials, and traffic paint must be fully cured before applying Protectosil CHEM-TRETE 40 VOC.
      c. Do not apply to wet surfaces.
      d. Do not proceed with application on materials if ice or frost is covering the substrate.
      e. Do not proceed with application if ambient temperature of surface exceeds 100 degree F.
      f. Do not proceed with the application of materials in rainy conditions or if heavy rain is anticipated with 4 hours after application.
   3. Chem-Trete Application
      See APPENDIX at the end of this specification for Chem-Trete Official application instructions.
   4. Post Application Testing
      a. After application has been completed and materials set, wet down all waterproofed surfaces,
      b. Check for areas that surfaces that show water absorption, and after found areas have dried,
      c. Apply Protectosil CHEM-TRETE 40 VOC to missed areas.
      d. Final test by the Manufacturer Representative for Warranty issue.

D. Collateral Actions/Processes
   1. Follow manufacturer’s recommendation concerning protection of plants, grass and other vegetation.
   2. Repair, restore, or replace to the satisfaction of the Owner, all materials, landscaping, and non-masonry surfaces damaged by exposure to water repellents.
   3. Brush apply water repellent only at locations where overspray would affect adjacent materials and where not practicable for spray application.
   4. While Work Progresses: Clean spillage and overspray from adjacent surfaces using materials and methods as recommended by water repellent manufacturer.
   5. Remove and dispose of all materials used to protect surrounding areas and non-masonry surfaces, following completion of the work of this section.
6. Clean site of all unused water repellents, residues, rinse water, wastes, and effluents in accordance with environmental regulations.

E. Warranty:
The Contractor shall furnish the Owner **a written single source performance warranty (Labor and Material)** that the Concrete Penetrating Sealer System will be free of defects related to workmanship or material deficiency for a **ten (10) year period** from the date of completion of the work provided under this section of the specification. See APPENDIX at the end of this specification for Chem-Trete Official warranty and testing documents.

1. The following performance standards shall be specifically covered under the warranty:
   - Loss of water repellency: When tested in accordance with ASTM D6489, The treated surfaces shall not absorb more than 1% water when compared to baseline results immediately after treatment.
   - As determined by the Owner, all defective areas shall be retreated by the terms of the warranty.

3.7 Window Insulated glass Unit Replacements
Most of the insulated glass units (IGU’s) are original to the building construction (1976).

A. Damaged/failed IGU’s are to be replaced with duplicate glazing units.
   1. Row-style (horizontal) windows
      a. The Contractor shall provide in his **base bid to replace 35 IGU’s**.
      b. IGU’s at interior column locations must be replaced from the exterior; all others from the inside.
      c. The Contractor shall **provide a unit price** for installing this style IGU’s should additional units be required. If additional units are required, the Owner and the Contractor will agree on the additional number of units and issue a Change Order.
   2. Vertical style windows (stair towers)
      a. The Contractor shall provide in his **base bid to replace 2 IGU’s**.
      b. The Contractor shall **provide a unit price** for installing this style IGU’s should additional units be required. If additional units are required, the Owner and the Contractor will agree on the additional number of units and issue a Change Order.

Notes:
1. In the original construction of the building, several of the IGU release-framing has been blocked from being able to remove the framing and glass unit without cutting away and repairing drywall.
2. Drywall repairs will require touch-up painting and, in some cases, repainting and entire wall section(s). See paragraph 3.7.D drywall repairs.
3. Prior to completing his bid documents, the bidder should make himself aware of the number of locations and the difficulty involved in replacing these units and repairing and painting these areas.
B. The IGU source is the Contractor’s choice of supplier.

C. While there should be little or no damages, as part of the base bid, damaged IGU metal-retainer framing is to be replaced with like framing.

D. Dry Wall Repairs
   1. For bidding information, drywall in the building was installed after the windows were in place. In several locations the drywall will prevent the replacement of glazing materials without the removal/damaging of the drywall. See paragraph 3.7.A.2 - Note 1 above.
   2. Due to the leaks created by exterior leaking at the windows, several areas in various rooms of drywall repair is to be completed on this project. The Bidder/Contractor is to investigate and provide in his base bid a quote to repair and paint such repairs. For painting information see paragraph 3.7.E following.
   3. An Allowance of $10,000 is provided for the drywall and painting repairs. The repairs will include those created by previous leak damages and for collateral contractor-created damages in order to install new glazing materials.
   4. The Contractor shall provide a unit cost per square foot for drywall repairs. If the restoration requires more (or less) than the allowance, the contractor is to charge (add to the final billing by prior approved Change Order) or reimburse (subtract from the final billing) prior to submittal of the final invoice.

Note: In preparing his drywall-repair quote, the Contractor must understand that if there are existing drywall damages in any room/location in the building that are above the windows, beside and above sills, or below windows stools; no matter how small or large, those drywall repairs are included and required by this contract. Non-window associated other general drywall repairs are not required other than a wall repair in Room 229 (see photo below). Therefore, any Contractor/Bidder is strongly urged to do a site visit prior to preparing his bid as the Owner will require all repairs to be properly completed and a final inspection will be made. Call 859-797-2070 or email bcollins@uky.edu for an appointment.
E. Painting
   1. Paint
      a. Primer shall be PPG Seal Grip Universal Sealer/Primer which is a low odor alkyd/oil base that will block wood tannin stains.
      b. Finish shall be Porter Paint Advantage 900 Acrylic Enamel which is a waterborne, low odor, non-yellowing and fast drying product (paint-surface finish to match i.e. gloss, semi-gloss, etc.).
      c. Colors to match the existing.
   2. In order to blend in to existing painted surfaces, touch-up painting or painting in general is to extend to the nearest corner(s) and from floor to ceiling.

3.8 Window Cleaning
   A. All building IGU’s, replaced and existing, are to be cleaned inside and outside.
   B. All exterior IGU’s are to have be cleaned and have Wonder Glass applied.
   C. Wonder Glass is available from WonderPaint LCC, 635 W. Main Street, 2nd Floor, Louisville, KY 40202 (www.wonderpaint.com) (502-656-8963). See APPENDIX at the end of this specification.

APPENDIX

INDEX
1. Chem-Trete Product Data
2. Chem-Trete 10-Year Warranty Document
3. Chem-Trete Installation Instructions
4. WonderGlass Product & Application Information
Protectosil® CHEM-TRETE® 40 VOC
WATER REPELLENT
Product Data and Test Information

PRODUCT DESCRIPTION
A clear, penetrating, breathable water repellent for use on exterior above-grade concrete, brick masonry, concrete masonry units and some natural stones. Penetrates the surface and bonds chemically to the substrate, resulting in permanent attachment of the water repellent molecule. Protectosil CHEM-TRETE® 40 VOC is not a coating and as a result will not discolor or change the surface appearance in any way. By reducing the amount of water entering the substrate, Protectosil CHEM-TRETE® 40 VOC reduces the intrusion of waterborne contaminants such as salt and dirt, and reduces the deteriorating effects of these contaminants, such as rebar corrosion, spalling, scaling, efflorescence, leaching and staining.

APPROPRIATE APPLICATIONS
For use on concrete, to protect the reinforcing steel from corrosion due to the effects of water, deicing salts and other waterborne chemicals. For use on brick masonry, to protect against the ingress of wind-driven rain. For use on concrete pavement for highways, parking decks and airport runways, to reduce scaling due to deicer chemicals. Reduces the effects of mildew, efflorescence and stains on vertical concrete and masonry buildings. Imparts water repellency to a substrate for an extended time.

ADVANTAGES
Protectosil CHEM-TRETE® 40 VOC is an isobutytrialkoxysilane in an alcohol carrier. The silane is designed to penetrate deep into the substrate and impart a high level of water and chloride ion screening. This provides the substrate with long-lasting protection. Because of the purity of Protectosil CHEM-TRETE® 40 VOC, it will not leave a residue on non-porous substrates such as glass windows, metal frames and painted surfaces. Protectosil CHEM-TRETE® 40 VOC meets the volatile organic content regulations in numerous states. In addition, Protectosil CHEM-TRETE® 40 VOC does not contain exempt solvents (such as 1,1,1-trichloroethane) that may be hazardous. For the proper VOC regulations in your specific location, contact your Protectosil representative.

The Protectosil CHEM-TRETE® 40 VOC product line has an unprecedented track record in protecting concrete, masonry and natural stone structures from deterioration due to water and waterborne contaminants. Structures treated in the 1970s are still protected, and these results are documented by state, federal and private agencies. By incorporating Protectosil CHEM-TRETE® 40 VOC into your integrated design, you can earn vital Leadership in Energy & Environmental Design (LEED) credits for both new and existing construction projects.

The main benefits of the product are:
- High resistance to wind-driven rain
- Excellent resistance to chloride ion ingress
- 100% Moisture vapor transmission
- Reduced efflorescence
- Breathable system
- Deep penetration into substrate
- No change in surface appearance
- No masking of windows necessary
- High resistance to alkali attack
- Long service life
- Keeps substrates cleaner

LIMITATIONS
Not intended for below-grade waterproofing. Should not be applied if the surface temperature is below 20°F (-7°C) or above 100°F (40°C), if rain is expected within 2 hours following application, or if high winds or other conditions prevent proper application. If rain has preceded the application, the surface should be allowed to dry for at least 24 hours. Caution should be taken with specialty coated glass, asphaltic materials and plastic windows. Check compatibility before application. Shrubbery and plant life should be protected from overspray.

TECHNICAL DATA
Protectosil CHEM-TRETE® 40 VOC is a clear, colorless liquid containing isobutytrialkoxysilane in alcohol.

<table>
<thead>
<tr>
<th>Color</th>
<th>Water white</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Substance</td>
<td>Isobutytrialkoxysilane</td>
</tr>
<tr>
<td>Active Content</td>
<td>&gt;50% by weight</td>
</tr>
<tr>
<td>Solvent</td>
<td>Denatured ethyl alcohol</td>
</tr>
<tr>
<td>Flash Point</td>
<td>54°F</td>
</tr>
<tr>
<td>Density</td>
<td>7.0 lb/gal</td>
</tr>
<tr>
<td>VOC</td>
<td>590 g/l</td>
</tr>
</tbody>
</table>

(Continued)
INSTALLATION
Concrete must be allowed to cure for a minimum of 28 days. All repointing must be completed and allowed to cure for at least 3 days. Concrete repair and replacement must be completed prior to application of Protectosil CHEM-TRETE 40 VOC. Patching materials, caulking, sealing materials and traffic paint must be fully cured before applying Protectosil CHEM-TRETE 40 VOC.
All surfaces must be cleaned to remove all traces of dirt, dust, efflorescence, mold, salt, grease, oil, asphalt, laitance, curing compounds, paint, coatings and other foreign materials. Acceptable surface cleaning methods include shotblasting, sandblasting, waterblasting, and using chemical cleaners. Check with your Protectosil representative to verify that surface preparation is adequate.
Protectosil CHEM-TRETE 40 VOC should be applied using low-pressure (15 to 25 psi) pumping equipment with a wet fan type spray nozzle. Alternate methods include using either a power roller with a 1" nap or a brush. Do not alter or dilute the material. Do not apply to a wet or damp substrate. A test patch should be applied to the substrate by a Protectosil representative to verify coverage rate and application conditions.
On vertical surfaces, apply Protectosil CHEM-TRETE 40 VOC in a flooding application from the bottom up, so the material runs downs 6 to 8 inches below the spray pattern. On horizontal surfaces, the liquid material should pond on the surface for at least 5 seconds before being absorbed. Coverage rates on horizontal concrete surfaces are typically between 150 and 250 ft²/gal. Coverage rates on vertical surfaces depend on the type of material to be treated. Your Protectosil representative can give an exact coverage rate for your particular project. Please refer to the "Protectosil CHEM-TRETE 40 VOC Application Instructions" for more detailed information.
Precautions: Protectosil CHEM-TRETE 40 VOC is a flammable liquid and should be kept away from heat, sparks, open flame and other sources of ignition. Protectosil CHEM-TRETE 40 VOC containers should be kept closed when not in use and should be stored at temperatures between 0°F (-18°C) and 120°F (50°C), away from rain and standing water. When working in an enclosed area, an air respirator should be used. Please refer to the material safety data sheet for more detailed information.
AVAILABILITY
Protectosil CHEM-TRETE 40 VOC is available in 5-gallon pails and 55-gallon drums. Shipped F.O.B. throughout the United States and Canada. Contact your local Protectosil representative or your regional manager for specific cost information. You can obtain their contact information on our website, www.protectosil.com, or by calling us at 1 (800) 628-0919.
TECHNICAL SERVICE
Technical service engineers and scientists are available to answer questions about product performance, application methods and compatibility with other building materials. You can speak to one of our engineers or scientists directly by calling our toll-free number, 1 (800) 628-0919, and selecting option 1.
MANUFACTURER
Evonik Corporation
299 Jefferson Road
 Parsippany, NJ 07054-0677
1 (800) 628-0919
info.protectosil@evonik.com
www.protectosil.com

PROTECTOSIL PRODUCTS ARE MANUFACTURED AT
THE EVONIK CORPORATION THEODORE, ALABAMA.
PLANT UNDER A QUALITY SYSTEM CERTIFIED TO ISO-9001 AND ISO-14001 REQUIREMENTS.

For more information, MSDS and the most updated product information, and to find your local representative, go to www.protectosil.com

Protectosil®, CHEM-TRETE® are registered trademarks of Evonik Industries

This information and all technical and other advice are based on Evonik Corporation’s (“Evonik”) present knowledge and experience. However, Evonik assumes no liability for such information or advice, including the extent to which such information or advice may relate to third party intellectual property rights. Evonik reserves the right to make any changes to information or advice at any time, without prior notice or subsequent notice. EVONIK DISCLAIMS ALL REPRESENTATIONS AND WARRANTIES, WHETHER EXPRESS OR IMPLIED, AND SHALL HAVE NO LIABILITY FOR MERCHANT ABILITY OF THE PRODUCT OR ITS FITNESS FOR A PARTICULAR PURPOSE (EVEN IF EVONIK IS AWARE OF SUCH PURPOSE). OR OTHERWISE. EVONIK SHALL NOT BE RESPONSIBLE FOR CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS) OF ANY KIND. It is the customer’s sole responsibility and obligation to arrange for inspection and testing of all products by qualified experts. Reference to trade names used by other companies is neither a recommendation nor an endorsement of the corresponding product, and does not imply that similar products could not be used.
TEN YEAR LABOR & MATERIAL WARRANTY FOR
PROTECTOSIL® CHEM-TRETE® 40 VOC

with

PROJECT NAME & ADDRESS

Sample Warranty

Evonik Corporation
Inorganic Materials
299 Jefferson Road
Parsippany, NJ 07054-0677
Telephone (800) 828-0919

Protectosil CHEM-TRETE 40 VOC: 10 Year Labor & Material Warranty (Vertical)
2013 Version 1
Page 1 of 3
Evonik Corporation ("Evonik") warrants that the surface of sound concrete, masonry or Evonik approved substrate treated with Protectosil® CHEM-TRETE® 40 VOC ("PRODUCT") on the project known as:

PROJECT NAME:

Treated Area(s):

will retain the water repellent effect for a period of ten (10) years from the date of application. The owner must give Evonik written notice by certified mail at 299 Jefferson Road, Parsippany, NJ 07054-0677 of any claims within thirty days of the discovery of any leaks.

Provided that the treated surface has not been abraded away and loses 1 ml or more during RILEM/Water uptake tube testing when compared to the baseline results during the limited warranty period, Evonik will provide sufficient labor and material to restore the water repellent effect to the areas on which it was lost. This warranty does not include surface preparation to reapply the material or cover any loss of water repellent effect due to improper surface preparation, improper application, the improper use of PRODUCT, structural defects or movement, water penetration caused by cracks or joint areas requiring caulking, sealants or repointing, failure of the building, any damage to the building or contents thereof, any leakage due to mechanical damage or abuse, or any leaks or damages arising out of any improper architectural or engineering specifications relied upon or submitted to Evonik.

This warranty is solely intended to cover any condition caused by defective material supplied by Evonik. It shall not include any condition caused by damage to the surface to which PRODUCT has been applied, or by any deliberate act or negligence. Any measurement of the water repellent effect shall be made according to Evonik’s standard procedures.

This warranty shall be governed by and construed in accordance with the laws of the State of New Jersey.

This warranty will become VOID if any additional products are applied to the treated surface without the written consent from Evonik. This warranty will not cover damage due to repair or subsequent work on or through the surface to which PRODUCT was applied.

During the term of this warranty, Evonik, its agents or employees shall have reasonable access to the project site during normal business hours upon prior notice to Owner.

This warranty is solely for the benefit of the owner of this project at the time the treatment is applied, and it does not extend to any successors or assignees of said owner. Evonik will re-issue the warranty for a new owner for the remaining term of the original warranty upon written request to Evonik from the new owner, provided such request is made within one hundred twenty days following the transfer of ownership, and providing the new owner pays the then current registration fee.

This warranty becomes effective, and remains valid, only when Evonik has confirmed receipt of the warranty from the owner along with all required documentation and when all outstanding invoices for application, supplies and services have been paid in full to Evonik, and to the contractor and material suppliers.

THIS LIMITED LABOR AND MATERIAL WARRANTY AND THE REMEDIES PROVIDED HEREUNDER ARE EXCLUSIVE AND GIVEN IN LIEU OF ALL OTHER WARRANTIES (WHETHER WRITTEN, ORAL, IMPLIED OR
STATUTORY). THE PARTIES AGREE THAT ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS HEREBY EXCLUDED AND SHALL NOT APPLY TO GOODS SOLD.

This warranty will immediately terminate and become null and void if there is any material change in the use or type of occupancy of the building.

THE PARTIES AGREE THAT EVONIK'S LIABILITY HEREUNDER SHALL BE LIMITED TO THE COST OF LABOR AND MATERIALS TO RESTORE THE WATER REPELLENT EFFECT OF THE PRODUCT TO THE AREA ON WHICH IT HAS BEEN LOST, BY AN AUTHORIZED APPLICATOR. EVONIK'S LIABILITY SHALL NOT EXCEED TWICE THE MATERIAL VALUE OF THE ORIGINAL PRODUCT INVOICED BY EVONIK FOR THE PROJECT. Evonik shall have no liability for any damage to other components of the building, nor for any consequential or incidental damages including, but not limited to, lost profits, sales or revenues, loss of use of the building, cost of capital, cost of a substitute building, facilities or services, downtime cost or claims of tenants of the building for such damages or personal injury.

In the event the owner requests Evonik to investigate leakage or other related problems on this project, owner will pay to Evonik the then current fee plus expenses for the investigation. This fee will not be applicable if the investigation determines that required service is covered by this warranty. This warranty shall become void if the owner fails to pay Evonik for said investigation within thirty days of Evonik’s invoice date.

Any controversy or claim arising out of, or relating to, this warranty, or the breach thereof, shall be settled by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association, then obtaining, at the New Jersey Regional Offices. The award rendered by the arbitrators shall be final and judgment upon the award may be entered in any Court having jurisdiction thereof.

Notwithstanding the foregoing, owner agrees that it will participate in, and be bound by any judicial, administrative or arbitration proceeding wherein the owner’s participation and presence are requested by Evonik, provided that said proceedings involve a common question of law or fact, or indemnification, and further provided that said proceedings involve a third party and Evonik, even though said third party might not be specifically bound by this warranty.

The terms and conditions of this Limited Labor & Material Warranty are hereby accepted.

Owner

By: ____________________________

Owner’s Authorized Representative

Evonik Corporation

By: ____________________________

Christopher Soldi, Business Manager

Sample Warranty

Date of Signature

Date of Signature

Protectosil CHEM-TRETE 40 VOC: 10 Year Labor & Material Warranty (Vertical)
2013 Version 1
Page 3 of 3
WEATHERPROOFING TEST PATCH REPORT
(To be filled by Evonik Protectosil® Representative) (Must be received 10 days prior to application)
COMPLETE IN FULL

Test Patch Applied By:
PROJECT ___________________________ NAME ___________________________
ADDRESS __________________________ COMPANY ___________________________
CITY/STATE/ZIP _____________________ ADDRESS __________________________
CONTRACTOR _______________________ CITY/STATE/ZIP _____________________

APPROXIMATE SQ. FT. OF THE PROJECT: __________________________ DATE: ____________

TYPE OF WARRANTY REQUESTED:

LOCATION OF TEST PATCH: Provide detailed drawing which shows exact location of test area. If possible, a supplemental photograph should be supplied. Test panel should not be less than 2’ x 2’ min. area. (Area for split-faced block should be 2’ x 3’ min.) State what type of substrate water repellent will be applied to.

Substrate: __________________________

Test Area I | Test Area II (when needed)
Product(s) applied _____________________________
Area treated _____________________________ sq. ft. _____________________________ sq. ft.
Amount used _____________________________ oz. _____________________________ oz.

This Test Patch Report was developed in order to help the applicator in determining the correct type and the correct amount of the Evonik Corporation Weatherproofing Product to be applied to the project. However, it cannot take into consideration all factors that may bear on the performance of a weatherproofing product on the individual project. Evonik Corporation and its representatives do not assume any legal responsibility for use of or reliance upon this Test Patch Report or any additional advice, whether implied or given expressly. Applicators are encouraged to have qualified personnel determine the suitability and the correct coverage rate of the pre-selected Evonik Corporation Weatherproofing Product for all areas of the project that are to be treated. Before using any chemical, read its label and Material Safety Data Sheet.

Updated: June 2018
WEATHERPROOFING  UNTREATED AREA

1. Direction that TEST PATCH AREA FACES (check one) ☐ N ☐ NE ☐ NW ☐ E
   ☐ W ☐ S ☐ SE ☐ SW

2. Does the untreated surface ABSORB water? ☐ Yes ☐ No

3. Is there any coating or paint on the surface: ☐ Yes ☐ No

4. How will substrate be cleaned? _____

5. In place caulking
   A. Condition ☐ Good ☐ Fair ☐ Poor
   B. Does it need to be replaced? ☐ Yes ☐ No
   C. Will it be replaced? ☐ Yes ☐ No

6. Existing mortar joints
   A. Condition ☐ Good ☐ Fair ☐ Poor
   B. Will they be tuckpointed? ☐ Yes ☐ No
   C. Existing cracks? ☐ Yes ☐ No
   D. Debonded mortar joints? ☐ Yes ☐ No

7. Weather condition during test panel ☐ Sunny ☐ Overcast ☐ Rain

8. Temperature _____
   Surface Condition ☐ Dry ☐ Damp ☐ Wet

---

UNTREATED/TREATED TEST PATCH EVALUATION
(At least five days after application)

**Evaluation must be made by approved Evonik Protectosil® Representative**

<table>
<thead>
<tr>
<th>Head Joint (Vertical Joint)</th>
<th>Untreated</th>
<th>Treated</th>
<th>Head Joint (Horizontal Joint)</th>
<th>Untreated</th>
<th>Treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repels water?</td>
<td>☐ Yes</td>
<td>☐ No</td>
<td>☐ Yes</td>
<td>☐ No</td>
<td>☐ Yes</td>
</tr>
<tr>
<td>Beads water?</td>
<td>☐ Yes</td>
<td>☐ No</td>
<td>☐ Yes</td>
<td>☐ No</td>
<td>☐ Yes</td>
</tr>
<tr>
<td>Surface water film absorbed?</td>
<td>☐ Yes</td>
<td>☐ No</td>
<td>☐ Yes</td>
<td>☐ No</td>
<td>☐ Yes</td>
</tr>
</tbody>
</table>

Rilem Uptake Test
Water absorbed in 20 min.

<table>
<thead>
<tr>
<th>Masonry/Solid Wall</th>
<th>Untreated</th>
<th>Treated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repels water?</td>
<td>☐ Yes</td>
<td>☐ No</td>
</tr>
<tr>
<td>Beads water?</td>
<td>☐ Yes</td>
<td>☐ No</td>
</tr>
<tr>
<td>Surface water film absorbed?</td>
<td>☐ Yes</td>
<td>☐ No</td>
</tr>
</tbody>
</table>

Rilem Uptake Test
Water absorbed in 20 min.

---

59
Comments

Evaluation made by NAME jschwein@fuse.net DATE
COMPANY

Updated: June 2018
WonderGlass

Restores Glass, Clean and Clear, for Years and Years!

**FEATURES & BENEFITS**

- **3 YEAR GUARANTEE** WonderGlass has been tested to help keep windows clean for 3 years or more. When properly applied, WonderGlass creates an impermeable barrier to water, solvents, dust, dirt and pollutants.

- **RENEWS & RESTORES** WonderGlass removes the appearance of glass, filling minor scratches and imperfections as the product chemically bonds to the surface, providing a 100% transparent and durable coating that restores the appearance of glass for years to come.

- **ENVIRONMENTALLY FRIENDLY** WonderGlass is environmentally friendly, non-toxic, readily biodegradable, non-flammable, VOC free and safe for the environment.

- **ANTI-FUNGAL, ANTI MICROBIAL** WonderGlass contains ingredients that make it impossible for mold or mildew to form once the product has been applied and cured.

- **WATER BASED – EASY APPLICATION & CLEAN-UP** WonderGlass is water-based and easy to apply and clean-up. Because the product is environmentally friendly, clean using ordinary soap and water.

**ORDER INFORMATION**

**AVAILABLE IN:**

ORDER INFORMATION

www.wonderpaint.com
(502) 854-8963
info@wonderpaint.com

WONDERPAINT.

ORDER INFORMATION

www.wonderpaint.com
(502) 854-8963
info@wonderpaint.com
WonderGlass
Restores Glass, Clean and Clear, for Years and Years!

TOOLS NEEDED
The only equipment required to apply WonderGlass are simple window cleaning tools: a bucket, sponge, and a squeegee. Although the product is green, it is recommended that rubber gloves and eye protection be used to comply with OSHA requirements.

PROCEDURE
Please read the Procedure and Best Performance recommendations prior to application to insure top performance.

1. The glass surface should be pre-cleaned using a mild cleaning solution and water. If water spots or mineral deposits appear, use a white distilled vinegar and water solution to remove them. If there is silicone on the glass, it must be removed using a citrus-based cleaner before cleaning the glass.

2. WonderGlass is best applied to a clean and dry glass surface when the exterior temperature is between 45° F and 100°F (7°C—38°C). Apply to cool glass that is out of direct sunlight (and high winds) to keep excess product from drying on the surface prematurely.

3. Working in manageable sections, apply the product with a sponge and squeegee off the access before it dries. The product will chemically bond to the glass instantly and fully cure within two days. To test the bond, a properly cured surface will resist a fingernail.

CLEAN-UP
Remove wet coating with soap and water.

STORAGE & SHELF LIFE
11 month shelf life, based on the following:
- Containers should be kept upright and airtight in a cool, dry place. AVOID FREEZING.
- Exposed or broken product should be removed prior to mixing, squeegeing or using.

APPLICATION RATE
In most cases, coverage should be 1,200 sq ft or more per gallon. Order windows may require a second application to fill minor imperfections and give a renewed appearance.

BEST PERFORMANCE
- Application temperature should be between 45° F and 100° F (7°C—38°C).
- Surfaces must be clean, dry and properly prepared with white vinegar or detergent.
- Do not apply material when snow, rain or freezing conditions are imminent. Cold and wet conditions may cause improper curing.
- Do not apply when the glass surface is in high winds or is warmer in direct sunlight as the product dries too quickly.
- Product isn’t as effective when applied to non-glass surfaces such as Flexiglas or vinyl window trimming.
- Treated glass looks new for years and is naturally cleaned by rain or sprinkling with water and/or a mild detergent.

LEGAL & WARRANTY
Limited Warranty. WonderGlass is warranted by its manufacturer, WonderPaint, Inc. to perform as claimed for a period of 3 years under normal circumstances when used and applied as directed. For complete warranty and quantity information, visit www.wonderpaint.com. This is a summary only, and the limited warranty is subject to all the terms, conditions and limitations of the warranty set forth at wonderpaint.com.

ORDER INFORMATION
www.wonderpaint.com
[602] 646-8945
info@wonderpaint.com

3 YEAR MANUFACTURER’s WARRANTY MANUFACTURED AND WARRANTED BY WONDERPAINT, INC. DISTRIBUTED BY WONDERPAINT DISTRIBUTION, LLC.

© 2017 WONDERPAINT DISTRIBUTION, LLC.

END SPECIFICATION
# SIGN-IN SHEET

## COMPANY

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Jamie Giguere – Midwest Maintenance, Inc.</td>
</tr>
<tr>
<td>2.</td>
<td>BSR Inc.</td>
</tr>
<tr>
<td>3.</td>
<td>Chestnut Enterprises Inc.</td>
</tr>
<tr>
<td>4.</td>
<td>Bill Collins</td>
</tr>
<tr>
<td>5.</td>
<td>Charles Britz SRLC</td>
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<tr>
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## REPRESENTATIVE

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<td>Ann Havlin</td>
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