INVITATION FOR BIDS

GLEN GARAGE RESTORATION

TU-1956

PROSPECTIVE BIDDERS/OFFERORS WHO OBTAINED THIS DOCUMENT FROM THE UNIVERSITY’S WEBSITE, E-MARYLAND MARKETPLACE, OR ANY SOURCE OTHER THAN THE PROCUREMENT OFFICER, SHOULD PROVIDE THEIR NAMES AND EMAIL ADDRESSES TO THE ISSUING OFFICE BY CONTACTING (410) 704-2171, TO ENSURE RECEIPT OF ADDENDA AND OTHER COMMUNICATIONS REGARDING THE SOLICITATION.

ISSUING OFFICE
PROCUREMENT DEPARTMENT
8000 YORK ROAD
TOWSON, MD 21252-0001

NOTE:
IF YOU PLAN TO HAND DELIVER YOUR BID/PROPOSAL OR USE AN OVERNIGHT COURIER, DELIVER THE BID TO THE PROCUREMENT OFFICE LOCATION TO ENSURE TIMELY DELIVERY.

PROCUREMENT OFFICE LOCATION
ADMINISTRATION BUILDING
7720 YORK ROAD, 4TH FLOOR
TOWSON, MD 21204

FREE 20-MIN. PARKING METERS ARE AVAILABLE NEAR THE 1ST-FLOOR BUILDING ENTRANCE

DIRECTIONS TO THE UNIVERSITY AND A CAMPUS MAP
http://www.towson.edu/maps/index.html

PARKING INFORMATION
http://www.towson.edu/parking/visitors/index.html

MINORITY BUSINESSES ARE ENCOURAGED TO RESPOND TO THIS SOLICITATION
invitation for bids (IFB)
TU-1956 – Glen Garage Restoration

IFB Issue Date: 3/13/18

IFB Issuing Office: Towson University Procurement Department

Procurement Officer Representative: Michelle Compton
Phone: 410-704-2050
Fax: 410-704-8233
e-mail: MLCompton@towson.edu

Procurement Office Location: Towson University Procurement Department
Administration Building, 4th Floor
7720 York Road
Towson, MD 21204

(preferred—hand deliver/courier)

Pre-Bid/Proposal Conference: 3/18/19 – 10:30 AM – site visit immediately following
Pre-Bid/Proposal Conference
Administration Building, Room 432

Deadline for Questions: 3/27/19 – 4:30 PM

Bids Due: 4/3/19 – 2:00 PM
(public bid opening)
Administration Building, Room 408

Contract Term: 5/28/19 – 8/23/19

The University is committed to ensuring that persons with disabilities have equally effective opportunities to participate in and benefit from the University's programs and services. Persons who may require reasonable ADA accommodations should contact the Issuing Office at 410-704-2171 at least five (5) days prior to any meeting scheduled in connection with this solicitation.
UNIVERSITY SYSTEM OF MARYLAND
TOWSON UNIVERSITY
NOTICE TO BIDDERS/OFFERORS

To help improve the quality of bid and proposal solicitations and to make our procurement process more responsive and "business friendly," we ask that you provide comments and suggestions regarding the enclosed solicitation. Please return your comments with your bid, proposal or "no bid," response, as the case may be. Thank you for your assistance.

Bid/Proposal Number: ____________ Entitled: ____________________________________________

I. If you have responded with a "no bid" please indicate the reasons below:
   ( ) Other commitments preclude our participation at this time.
   ( ) The subject of the solicitation is not something we normally provide.
   ( ) We are inexperienced in the work/commodities required.
   ( ) The specifications are either unclear or too restrictive (Explain below).
   ( ) The scope of work is beyond our current capacity.
   ( ) Doing business with Maryland Government agencies is simply too complicated (Explain below).
   ( ) We cannot be competitive (Explain below).
   ( ) Time allotted for completion of the bid/proposal response is insufficient.
   ( ) Startup time is insufficient.
   ( ) Bonding/Insurance requirements are prohibitive (Explain below).
   ( ) MBE requirements (Explain below)
   ( ) Bid/Proposal requirements (other than specifications or scope) are unreasonable or too risky (Explain below).
   ( ) Prior experience with Towson University contracts was unprofitable or otherwise unsatisfactory   (Explain below).
   ( ) Payment schedule too slow.
   ( ) Other: ____________________________________________

II. If you have submitted a bid or proposal, but wish to offer suggestions or express concerns, please use the remarks section below.

Remarks: ____________________________________________________________________________

____________________________________________________________________________________

Offeror Name: ________________________________________________________________
Contact Person: ____________________________________________________________
Signature: ________________________________________________________________________ Date: ____________________________
Address: _________________________________________________________________________
E-Mail: _________________________________________________________________________
Telephone: ______________________________________________________________________ Fax: __________________________________________________________________
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TERMS AND CONDITIONS
SECTION I. PROCUREMENT OBJECTIVE

A. SUMMARY STATEMENT
Towson University is seeking qualified contractors to provide all labor, equipment and materials to make repairs to the Glen Garage in accordance with the specifications.

B. ISSUING OFFICE AND PROCUREMENT OFFICER
The sole point of contact in the State for purposes of this IFB is the Procurement Officer or his/her representative (hereinafter referred to as Procurement Officer) noted on the Key Information Summary Sheet. Only the information communicated by the Procurement Officer shall be deemed the official position of the University; no other State or University employee, official, or representative has authority to change the requirements of this solicitation. Attempts by Bidder to contact the requester, evaluator, or otherwise circumvent this procedure in any manner may be grounds for disqualification.

C. PRE-BID CONFERENCE AND SITE VISIT
1. Prior to submitting its bid, each contractor is encouraged to attend the scheduled pre-bid conference to examine the facility and familiarize himself with the full nature and extent of the work to be done. They shall obtain for themselves all information that may be necessary for the satisfactory performance of the contract work and the cost thereof. It is the sole responsibility of the contractor to fully familiarize themselves with the areas involved and the extent of the services required by visual inspection. Failure to visit the site and become familiar with the conditions and requirements affecting the work will not relieve the successful contractor from the provisions of the contract and from completing the work for the consideration set forth.

2. Towson University is committed to ensuring that persons with disabilities are given an equally effective opportunity to participate in and benefit from the university's programs and services. Persons with disabilities who might need reasonable accommodations should contact the Procurement Department at least 72 hours before any meetings held in connection with this solicitation at (410) 704-2171.

D. QUESTIONS AND INQUIRIES
Bidders shall direct all communications regarding this solicitation to the Procurement Officer, in writing (email preferred), not later than the date indicated on the Key Information Summary Sheet. Addenda, if required, will be furnished to all potential Bidders known to have received the IFB.

E. SITE INVESTIGATION
By submitting a bid the vendor acknowledges that he has investigated and satisfied himself as to the conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, and electric power. Any failure by the contractor to acquaint himself with the available information will not relieve him from responsibility for estimating properly the cost of successfully performing the work. The University shall not be responsible for any conclusions or interpretations made by the contractor of the information made available.
by the University.

F. INSURANCE
Upon award, the successful bidder shall furnish certificates of insurance as required in the following exhibits whichever exhibit is applicable (specified in Section II. L. 2.):

- Exhibit A - Required Contract Provisions - Section 35, or
- Exhibit A2 - Required Contract Provisions for Construction and Maintenance - Section 37

The certificate must name Towson University as an additional insured, and shall reference the title and number of the solicitation/contract.

G. BUILDERS RISK INSURANCE
The contractor shall carry, at his own expense, Builder's Risk Insurance for the full contract amount, insuring against the perils of Fire, Lighting, Extended Coverage Vandalism, and Malicious Mischief subject only to the minimum standard deductible currently filed by the Insurance Service Office with the State Insurance Department. The University will provide no coverage during the construction period.

The policy shall contain endorsements reading as follows:

- This policy also covers, as part of the provisional amount, the architects’, engineers’ and builders’ fees.

- Permission is hereby granted for occupancy, in whole or in part, pending acceptance by the owner.

- It is the intent of this insurance to cover, specifically, all the work being done under the contract between the insured and as to such work this policy shall be primary insurance and shall not contribute or claim contribution from any other insurance being carried, which by its terms, would also cover on the property covered hereunder in the absence of this insurance.

- Coverage afforded under this policy will not be canceled until at least fifteen (15) days prior written notice has been given to the Procurement Officer.

Certificates of insurance shall be submitted to the Procurement Officer for review and approval and shall be held by the University’s Procurement Department for the duration of the contract. The University shall have the absolute right to terminate the contract if the policy of insurance is canceled at any time for any reason and a new policy is not obtained by the contractor and approved by the Procurement Officer.

The above insurance shall remain in full force and effect until such time as the University shall fully accept the work covered by this contract.

H. BID SECURITY
1. If the total Bid Price is $100,000.00 or more, each Bidder shall furnish with his bid price a "bid bond" (See Exhibit H) issued by a surety company licensed to issue bonds in the State of Maryland. The bond must be in an amount not less than five
percent (5%) of the total amount of the base bid price and shall be in the form specified with the bid documents.

2. Certified checks, cash and other security in that amount are acceptable in lieu of a "bid bond", and shall be submitted with the Bid Price and subject to the same conditions as a bond.

3. Should the Bidder to whom the contract is awarded fail or be unable to execute the contract, for any reason, within ten (10) days after notification of award, then an amount equal to the difference between the accepted price, and that of the bidder to whom the award subsequently is made shall be paid to the University as liquidated damages.

4. The Bidder to whom a contract in excess of $100,000.00 is awarded also must furnish Performance and Payment Bonds (See Exhibits I and J), each in the amount of one hundred percent (100%) of the contract price, including executed Change Orders, in the form specified with the bid documents. These must be provided at the time of the signing of the contract and prior to the start of any work.

5. Bid Bonds remain in effect a minimum of ninety (90) days from the bid due date.

I. LICENSES AND QUALIFICATIONS
   1. Construction contractors must be licensed as Md. Code Ann., Bus: Reg. § 17-601, and shall submit proof of current licensing with the bid.

   2. The University reserves the right to require that a contractor demonstrate that it has the skills, equipment and other resources to satisfactorily perform the nature and magnitude of work necessary to complete the project within the proposed contract schedule.

J. BID DUE DATE
   Bids must be received at the Issuing Office by date and time indicated on the Key Information Summary Sheet. Requests for extensions will not be granted. Late bids, late requests for modification, or late requests for withdrawal will not be considered. Unless specifically requested, bids submitted by fax or other electronic devices will be rejected. It is recommended that bids be hand delivered.

K. OPENING OF BIDS
   A public opening will be held at the date, time and location noted on the Key Information Summary Sheet.

L. DURATION OF BID OFFER
   Bids submitted are irrevocable for 90 days after the bid due date. This period may be extended by mutual written agreement between the bidder and the University.

M. PROCUREMENT METHOD
   This solicitation shall be conducted in accordance with the provisions of the University System of Maryland (USM) Procurement Policies and Procedures. The procurement method is Competitive Sealed Bidding.

N. AWARD
The University will recommend for award a responsive bid from the responsible bidder submitting the most favorable evaluated bid price for the requirement(s) herein.

O. MULTIPLE BID OR ALTERNATE BIDS
Unless multiple or alternate bids are specifically requested in the solicitation, they will not be accepted.

P. MINORITY BUSINESS ENTERPRISE UTILIZATION
Minority businesses are encouraged to respond.

END OF SECTION I
SECTION II. GENERAL INFORMATION FOR VENDORS

A. PURPOSE
The overall purpose of this solicitation is to provide information to vendors interested in preparing and submitting bids to meet the requirements herein. Bidders shall familiarize themselves with each section and subsection of this document.

B. REVISIONS TO IFB
1. The University reserves the right to amend this solicitation at any time prior to the bid due date. If it becomes necessary to amend any part of this solicitation, the procurement officer will furnish addenda to all prospective bidders known to have received a copy of this IFB.

2. Each bidder shall acknowledge the receipt of all addenda issued by completing Exhibit K, Addendum Acknowledgment Form, and enclosing it with the bid.

C. PRE-BID MODIFICATION OR WITHDRAWAL OF OFFERS
Bids may be modified or withdrawn by written notice received at the Issuing Office before the bid opening date and time.

D. CANCELLATION OF SOLICITATION/REJECTION OF ALL BIDS
The University reserves the right to cancel this IFB, to accept or reject any or all bids, in whole or in part, received in response to this IFB, and to waive or permit cure of minor irregularities as its best interests may require.

E. INCURRED EXPENSES
The University assumes no responsibility for expenses incurred in preparing and submitting bids in response to this solicitation.

F. ARREARAGES
By submitting a response to this solicitation, a bidder represents that it is not in arrears in the payment of any obligation due and owing the State of Maryland, including the payment of taxes and employee benefits, and that it shall not become so in arrears during the term of the contract if selected for contract award.

G. VERIFICATION OF REGISTRATION AND TAX PAYMENT
Each prospective bidder is encouraged to ensure that it is appropriately registered to do business in the State of Maryland, and in good standing with respect to taxes, personal property returns, unemployment insurance, etc., before the bid opening date. Failure to complete registration with the State Department of Assessments and Taxation (SDAT) may disqualify an otherwise successful bidder from recommendation for contract award.

H. ECONOMY OF PREPARATION
Bids should be prepared simply and economically, providing a straight-forward, concise description of the bidder's ability to fulfill the requirements of this solicitation.

I. PUBLIC INFORMATION ACT NOTICE
Bidder shall give specific attention to identification of those portions of its bid considered confidential, or containing proprietary information or trade secrets. Upon request, bidder shall provide justification why such material should not be disclosed by the University.
under the Public Information Act, General Provisions Article, §§ 4-401 et seq., Annotated Code of Maryland.

J. EXECUTION OF BIDS
Bids shall be typewritten or written legibly in ink, and signed in ink as follows, depending on the bidder’s form of business organization:

1. **Sole Proprietorship.** Proprietor shall sign full name, with address.

2. **Partnership and Joint Venture.** Submit the bid/price proposal form in the name of the partnership or joint venture. Clearly state the partnership name and the identity of each general partner, and execute all affidavits and certificates on behalf of the partnership, or on behalf of each general partner. No provision of any agreement among partners will be binding on the University unless it is disclosed in the Bidder’s proposal. Reasonable evidence satisfactory to the University of the authority of one partner to bind other purported partners is required. Include a copy of the partnership agreement, if one exists. If no partnership agreement exists, and if the number of general partners is reasonably small, each general partner should execute all required documents. At the University’s option, all general partners may be required to sign. Failure to present the University with satisfactory information concerning a purported partnership or joint venture may be grounds for bid rejection.

3. **Corporation.** An officer or authorized agent of the corporation shall sign with full name, indicate title, and include the name and address of the corporation. In the case of an authorized agent, enclose a letter from an officer of the corporation authorizing said individual to act on behalf of the corporation.

K. DISCREPANCIES, EXPLANATIONS AND CLARIFICATIONS
Bidders finding discrepancies in the specifications or other provisions included in this solicitation, or in doubt as to the meaning or intent of any section or subsection herein, shall request clarification from the Procurement Officer. Failure to request clarification prior to the due date shall be a waiver of any claim by the Bidder for expenses made necessary by reason of later interpretation of the contract documents, and Bidder shall be bound to the University’s interpretation. Request clarifications in accordance with the instructions above.

L. ORDER OF PRECEDENCE
The contract to be entered into as a result of the IFB (the "Contract") will consist of the following contract documents listed in their order of precedence:

1. The contract executed by the parties and/or Purchase Order issued by the University;

2. The solicitation, including Exhibit A2 - Required Contract Provisions for Construction/Maintenance, and all other Exhibits; and

3. The bid as submitted by bidder and accepted by the University.

No modifications to this order of precedence will be accepted.

M. REQUIRED CONTRACT PROVISIONS
Bids submitted, and contract(s) executed with the successful bidder, are subject to Exhibit A-2 and Exhibit A-1 (if applicable).
By submitting a bid, the vendor is deemed to have accepted the terms of this IFB, including exhibits; a bid that takes exception to the terms of the IFB may be rejected. Mutually agreeable modifications of the solicitation provisions, if allowed by law, will be documented by express identification in the final contract as superseding the pertinent provisions of the solicitation.

N. FALSE STATEMENTS
Bidders are advised that the Annotated Code of Maryland provides that in connection with a procurement contract, a person may not willfully: Falsify, conceal or suppress a material fact by any scheme or device; make a false or fraudulent statement or representation of a material fact; use a false writing or document that contains a false or fraudulent statement or entry of a material fact; or aid or conspire with another person to commit any of the aforementioned acts. A person who violates these provisions is guilty of a felony, and on conviction is subject to a fine not exceeding $20,000 or imprisonment not exceeding five (5) years, or both.

O. PAYMENT TO THE CONTRACTOR
Payment is governed by Title 15, Subtitle 1, of the State Finance and Procurement Article, Annotated Code of Maryland. The State of Maryland is exempt from Maryland Retail Sales tax and Federal Excise Tax.

If the contract is a maintenance service/service contract, at the end of each calendar month, the Contractor shall render to the Accounts Payable Office, its invoice, in triplicate, for work done during the month. The amount shall not exceed one-twelfth (1/12) of the yearly service contract, unless otherwise specified in the Detailed Specifications.

P. VENDOR ELECTRONIC FUNDS TRANSFER REGISTRATION
Contractors of the State are required to complete a COT/GAD Form X-10, Vendor Electronic Funds Transfer (EFT) Registration Request Form, for each new contract with a value greater than $200,000. Vendors must register for EFT by submitting a completed COT/GAD Form X-10 to the Comptroller’s General Accounting Division (GAD) or request an exemption from GAD. The revised form is on the Comptroller’s Web site at http://compnet.comp.state.md.us/General_Accounting_Division/Vendors/Electronic_Funds_Transfer/default.shtml

Q. RECIPROCAL PREFERENCE
While Maryland law does not authorize state agencies to favor resident bidders, other states grant preferences to their residents over Maryland businesses. Therefore, a resident business preference may be given to a Maryland firm if: A responsible bidder whose headquarters, principal base of operations, or principal site that will provide the services required by this IFB is located in another state submits the most advantageous offer; the other state gives a preference to its residents through law, policy, or practice; and the preference does not conflict with a Federal law or grant affecting the contract. The preference given shall be identical to the preference that the other state gives to its residents.

R. NON-VISUAL ACCESS
The Contractor shall ensure compliance in any applicable contract with State of Maryland IT Non-Visual Access Standards. The standards should be incorporated to the fullest extent possible for information technology contracts. These standards/policies may be
revised from time to time and the Contractor shall comply with all such revisions. The Non-visual Access Clause noted in COMAR 21.05.08.05 and referenced in the IFB is the basis for the standards that have been incorporated in the Maryland regulations.

S. PARKING
All vehicles parked on Towson University property must strictly observe University parking regulations. Each vehicle parked on campus between 6 am and 8 pm, Monday through Thursday, and from 6 am to 3 pm on Fridays, must display a valid University permit unless parked at a paid meter. Parking on sidewalks or unpaved areas is prohibited at all times. All fines for parking or other vehicle violations are the responsibility of the Contractor. This applies to vendors, salespersons, company vehicles, and Contractor employees’ personal vehicles. Long- and short-term permits are available, at designated rates, for vendors with contracts that require them to park regularly on the campus; see the parking website at http://www.towson.edu/parking/visitors/index.html for permit rates and information to support preparation of Bid/Price Proposal. Parking Transportation phone: (410) 704-7275. NOTE: INCLUDE PARKING FEES IN BID/PRICE PROPOSAL.

T. SMOKING
Smoking, defined as the burning of tobacco or any other material in any type of smoking equipment, including but not restricted to cigarettes, cigars or pipes, is prohibited on all property owned, leased or operated by the University. This consists of all buildings, including residence halls, leased restaurants and lodging facilities; all grounds, including exterior open spaces, parking lots and garages, on-campus sidewalks, streets, driveways, stadiums, recreational spaces and practice facilities; and in all University-owned or leased vehicles. The policy applies to all individuals on the University campus, including faculty, staff, students, parents, vendors and visitors. Contractor and its employees and subcontractors who violate the policy may be denied access to the University campus.

END OF SECTION II.
SECTION III. BID SUBMISSION REQUIREMENTS

A. ORGANIZATION OF BIDS
1. Bids must be submitted to the campus location of the Issuing Office not later than the date and time indicated on the Key Information Summary Sheet.

2. Submit one (1) clearly marked original and one (1) copy of each bid, in a sealed envelope. Indicate on the outside of the envelope the solicitation/project number, bid due date, and bidder’s name and address.

3. If technical data, product literature, or brochures are needed to supplement the bid, enclose those materials after the last required form.

4. Bids that are incomplete or that deviate from the format required in this section may be rejected.

B. SUBMITTAL REQUIREMENTS CHECKLIST
Each bid must include the following:

1. BID/PRICE PROPOSAL FORM, typewritten or completed in ink and executed in accordance with the requirements in Section II. Each alteration to the Bid Form must be initialed, in ink, by the signatory.

2. Exhibit B, BID/PROPOSAL AFFIDAVIT, typewritten or completed in ink and executed in accordance with the requirements in Section II.

3. Exhibit F, COMPANY PROFILE

4. Exhibit G, FIRM EXPERIENCE, duplicate as necessary to furnish references for no less than three (3) comparable projects completed within the past five (5) years, or currently underway.

5. Exhibit H, BID BOND

6. Exhibit K, ADDENDA ACKNOWLEDGMENT FORM. Should one or more addenda be issued, each bidder must acknowledge receipt using this form, identifying each addendum by number and date, and signing the document.

7. Exhibit L, KEY PERSONNEL FORM. Provide the names of key personnel to be assigned to this project, if awarded, and a brief resume on each, including educational background, work experience with bidder, previous work experience with other firms, and specific experience similar to the current project.

C. EVIDENCE OF BIDDER RESPONSIBILITY
The University may require any bidder to furnish additional information regarding past performance, financial capacity, technical expertise, or other qualifications bearing on performance of the contract, and reserves the right to consider any information otherwise available, or to make such additional investigations as it deems necessary to confirm the responsibility of any bidder.
The Procurement Officer shall make purchases from, and award contracts, only to responsible contractors. In the absence of information clearly indicating that the prospective contractor is responsible, the Procurement Officer shall make a determination of non-responsibility.

END OF SECTION III.
Part I. General

The Contractor shall provide all labor, equipment and materials to make repairs to the Glen Garage in accordance with the specifications.

The base bid consists of concrete garage repairs specified in the project drawings and specifications dated March 1, 2019 for the Towson University Glen Garage Repairs.

The awarded Contractor shall coordinate with Towson University Project Manager during pre-construction and construction phases to determine which floors can be closed for repair work at what times. The garage(s) will remain open during construction. Construction must be sequenced to allow access to floors that are not under construction. This will require appropriate signage, cones, and construction barriers to safely and clearly indicate accessible driving and walking routes.

This request includes one add alternates and a request to provide unit pricing as specified on the BID PRICE PROPOSAL FORM. Any manifestly unbalanced bid is subject to rejection.

The basis for award shall be the base bid amount.

Part II. Schedule

A. Construction shall start on or about May 28, 2019 and be completed no later than August 23, 2019.

B. Contractor is responsible for determining lead time required for all materials required to complete the repairs within the time constraints specified above.

Part III. Scope of Services

A. Contractor shall provide all necessary services to repair the existing garage deck, structural precast double tees, walls, beams, columns, stair towers, vehicular bridges and other areas in accordance with the project drawings and specifications included in the bid package. Work shall include, but not be limited to: joint repairs, repairing spalls, repairing cracks, repairing lift pocket patches, replacing precast covers, stair tread and riser repairs (alternate only for Towsontown Garage).

B. Contractor is responsible for establishing all quantities and measurements to accomplish this work. Contractor will only be permitted to have certain areas of the garage out of service at any one time and is responsible for determining appropriate phasing, coordination and scheduling of services with the TU Project Manager.

C. Site Investigation – The contractor is responsible for thoroughly investigating the garage to determine areas that require repairs. Contractor will coordinate the proposed repairs with Towson University Project Manager.
D. The proposed work under the contract includes all repairs specified in the project drawings and specifications included in the bid package and includes but is not limited to:

1. All areas of work shall be sectioned off by the Contractor by means of barricades to prevent the general public from entering those zones during repair times. Provide appropriate signs as required by owner to direct general public around the construction site. The contractor is fully responsible for the ongoing safety of the public at all times.

2. Contractor shall coordinate construction activities with Towson University Project Manager with other university construction scheduled during the same timeframe.

3. Provide appropriate shoring and bracing as required by design and appropriate OSHA regulations prior to the start of any work.

4. Demolition of existing materials and components.

5. Disposal of all demolished materials off campus in a legal manner.

6. Provide all required patching, caulking, concrete sealants and structural repairs.

7. Remove all barricades, temporary signs, patch any areas disturbed by construction activities.

E. Review and Evaluation of Pre-Construction and Construction Submittals

1. Towson University and project engineer will review all submittals during the pre-construction and construction phases and conduct field inspections through the duration of the project.

Part IV. Warranty

A. Contractor shall furnish the university with a minimum of a (5) five year (labor and material) warranty for the repairs upon completion of all work. The warranty shall include, but not be limited to the concrete work, sealants and caulk. The contractor warrants that the products installed will be free from defects in workmanship and materials from the date of substantial completion. Contractor will repair or replace any products of faulty material or defective workmanship proven under normal use or service.
Glen Garage and Towsontown Garage Repairs

Towson University Project No. 19016

Construction Documents

PROJECT SPECIFICATIONS
March 1, 2019

Owner
Construction Services
Towson University
8000 York Road
Towson, Maryland, 21252-0001

Prime Engineer
WRA
801 S. Caroline Street
Baltimore, MD 21231
Tel. (410) 728-2900

Structural Engineer
Columbia Engineering
6210 Old Dobbins Ln.
Columbia, MD 21045
Tel. (410) 992 - 9970

Board of Public Works
Larry J. Hogan, Jr. Governor
Peter Franchot, Comptroller
Nancy K. Kopp, Treasurer

Maryland General Assembly
Thomas V. Miller Jr, Senate President
Michael Erin Busch, House Speaker
# Towson University

**Glen Garage and Towsontown Garage Repairs**

**PROJECT SPECIFICATIONS**

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SECTION 010100 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS
A. The work consists of:
   1. Glen Garage - Perform concrete garage repairs specified on construction drawings titled Towson University Glen Garage Repairs, dated March 1, 2019.
   2. Towsontown Garage – Perform expansion joint replacement and control joint repairs specified on construction drawings titled Towson University Towsontown Garage Repairs, dated March 1, 2019, if Alternate 1 is awarded.
   3. Towsontown Garage – Perform stair replacement specified on construction drawings titled Towson University Towsontown Garage Repairs, dated March 1, 2019, if Alternate 2 is awarded.
B. Project Location: Towson University, Glen Garage and Towsontown Garage, Towson, MD
C. Construction Documents dated March 1, 2019 were prepared for the Project by:
   1. Prime Structural Engineer
      Whitman Requardt and Assoc, LLP
      801 South Caroline Street
      Baltimore, MD 21231
      Tel. (410) 235-1749
   2. Structural Engineer
      COLUMBIA ENGINEERING
      6210 Old Dobbin Lane Columbia, MD 21045
      Tel. (410) 992-9970

1.3 WORK SEQUENCE
A. The Work has been documented as a single Scope of Work. The Work will be conducted in such a manner as determined by the Contractor and agreed upon by the University and Architect/Engineer to maintain a fully operational and accessible parking facility for the duration of the project.
B. Contractor shall coordinate the schedule of work with the University, and maintain open lanes for traffic at all times, or, alternately, obtain approval for a complete shutdown of the garage on a specific weekend (Friday 8 p.m. – Monday 6 a.m.).
C. Before commencing Work, submit an updated copy of Contractor's construction schedule showing the sequence, commencement and completion dates for all the Work.

1.4 CONTRACTOR USE OF PREMISES
A. General: During the construction period the Contractor shall have full use of the premises for construction operations, including use of the site. The Contractor's use of the premises
is limited only by the University's right to perform work or to retain other contractors on portions of the Project. Use of interior portions of the garage shall be limited to those operations necessary for work related to this contract. Interior work shall be scheduled in advance with the Owner and requires written authorization.

B. Use of the Site: Limit use of the premises to work in areas indicated. Confine operations to areas within contract limits indicated. Do not disturb portions of the site beyond the areas in which the Work is indicated.

1. University Occupancy: Allow for University occupancy and use by the public. The building will remain in 24 hour operation; access to the building entrances shall be maintained throughout the construction period.

2. Drive Lanes, Parking Areas and Entrances: The contractor shall provide traffic control to facilitate entry to, and exit from, the garage at all times. Do not use these areas for parking or storage of materials. Schedule deliveries to minimize space and time requirements for storage of materials and equipment on-site.

3. Maintenance of Traffic and Phasing Plan:
   a. Submit a plan indicating proposed phasing of work for approval by the University.
   b. Phasing plan shall include maintenance of traffic operation.
      1) Maintenance of traffic shall include pedestrian, vehicular and bicycle traffic.
      2) Contractor shall include all personnel, signage, barricades, and all other traffic control measures in order to execute maintenance of traffic and phasing throughout the duration of construction.

4. Keep area clean, free of debris, and protected from public access by means of chain link security fencing. Staff and public access to the parking garage shall be maintained at all times.

5. Free use of stairwells while building is occupied:
   a. The stairwell shall not be blocked while the parking garage structure is occupied.
   b. Do not store anything in the stairwells at any time.
   c. Any equipment used in the stairwells (ladders, for example for painting) shall be movable. Equipment shall not be left in stairwell when contractor is not present. In the event that the fire alarm activates, contractor shall remove equipment to allow for clear exit passage for building occupants.

C. Use of the Existing Building: Maintain the existing building in a weather-tight condition throughout the construction period. Repair damage caused by construction operations. Take all precautions necessary to protect the building and its occupants during the construction period.

1.5 OCCUPANCY REQUIREMENTS

A. Full University Occupancy: The University will occupy the site and existing building during the entire construction period. Cooperate with the University during construction operations to minimize conflicts and facilitate University usage. Perform the Work so as not to interfere with the University's operations and maintain one entry and one exit drive lane fully operational, clear and available to the University, the University's employees, the public and emergency vehicles at all times.
1.6 PROTECTION OF EXISTING CONSTRUCTION AND FURNISHINGS

A. The Contractor shall take all necessary precautions to protect the University’s property and furnishings. The Contractor shall promptly remedy damage and loss to the University’s property caused in whole or in part by the Contractor, a Subcontractor, a Sub-Subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible.

1.7 WORK RESTRICTIONS

A. Work Restrictions, General: Comply with restrictions on construction operations.
   1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.

B. On-Site Work Hours: Limit work at Project site as follows:
   1. Workweek: Between the hours of 7 a.m. and 5 p.m., local time, Monday through Friday.
   2. Work restrictions specified in this section supersede all other references to working hours on the project.

C. Work outside the specified hours may be allowed with 72 hours minimum notice to the Owner.

D. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:

E. Notify Owner not less than two days in advance of proposed utility interruptions.

PART 2 - PRODUCTS  (Not Used)

PART 3 - EXECUTION  (Not Used)

END OF SECTION 010100
SECTION 010260 - UNIT PRICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
   B. Specification Sections

1.2 SUMMARY
   A. This Section includes administrative and procedural requirements for unit prices.

1.3 DEFINITIONS
   A. Unit price is an amount proposed by bidders, stated on the Bid Form, as a price per unit of measurement for materials or services added to or deducted from the Contract Sum by appropriate modification, if the estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES
   A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, overhead, profit, and applicable taxes.
   B. Measurement and Payment: Refer to individual Specification Sections for work that requires establishment of unit prices.
   C. The University reserves the right to reject the Contractor's measurement of work-in-place that involves use of established unit prices, and to have this work measured, at the University's expense, by an independent surveyor acceptable to the Contractor.
   D. Schedule: A "Unit Price Schedule" may be included at the end of this Section. Specification Sections referenced in the Schedule contain requirements for materials described under each unit price.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 010260
SECTION 010270 - APPLICATIONS FOR PAYMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements governing the Contractor's Applications for Payment.

B. This Section specifies administrative and procedural requirements governing each prime contractor's Applications for Payment.

1. Coordinate the Schedule of Values and Applications for Payment with the Contractor's Construction Schedule, Submittal Schedule, and List of Subcontracts.

C. Related Sections: The following Sections contain requirements that relate to this Section.

1. Schedules: The Contractor's Construction Schedule and Submittal Schedule are specified in Division 1 Section "Submittals."

1.3 SCHEDULE OF VALUES

A. Coordination: Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.

1. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:

   a. Contractor's Construction Schedule.
   b. Application for Payment forms, including Continuation Sheets.
   c. List of subcontractors.
   d. Schedule of allowances.
   e. Schedule of alternates.
   f. List of products.
   g. List of principal suppliers and fabricators.
   h. Schedule of submittals.

2. Submit the Schedule of Values to the University at the earliest possible date but no later than 7 days before the date scheduled for submittal of the initial Applications for Payment.

3. Subschedules: Where Work is separated into phases requiring separately phased payments, provide subschedules showing values correlated with each phase of payment.

B. Format and Content: Use the Project Manual table of contents as a guide to establish the format for the Schedule of Values. Provide at least one line item for each Specification Section.

1. Identification: Include the following Project identification on the Schedule of Values:

   a. Project name and location.
   b. University’s Project number.
c. Contractor's name and address.
d. Date of submittal.

2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
   a. Related Specification Section or Division.
   b. Description of Work.
   c. Name of subcontractor.
   d. Name of manufacturer or fabricator.
   e. Name of supplier.
   f. Change Orders (numbers) that affect value.
   g. Dollar value.
   h. Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.

3. Provide a breakdown of the Contract Sum in sufficient detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Break principal subcontract amounts down into several line items.

4. Round amounts to nearest whole dollar; the total shall equal the Contract Sum.

5. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed.
   a. Differentiate between items stored on-site and items stored off-site.
      Include requirements for insurance and bonded warehousing, if required.

6. Provide separate line items on the Schedule of Values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.

7. Margins of Cost: Show line items for indirect costs and margins on actual costs only when such items are listed individually in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be complete. Include the total cost and proportionate share of general overhead and profit margin for each item.
   a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown either as separate line items in the Schedule of Values or distributed as general overhead expense, at the Contractor's option.

8. Schedule Updating: Update and resubmit the Schedule of Values prior to the next Applications for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum.

1.4 APPLICATIONS FOR PAYMENT

A. Each Application for Payment shall be consistent with previous applications for payment as paid for by the University.
   1. The initial Application for Payment, the Application for Payment at time of Substantial Completion, and the final Application for Payment involve additional requirements.

B. Refer to the University of Maryland Baltimore Standard General Condition of Construction for requirements and procedures governing applications for payment.
C. Initial Application for Payment: Administrative actions and submittals, that must precede or coincide with submittal of the first Application for Payment, include the following:
1. List of subcontractors.
2. List of principal suppliers and fabricators.
3. Schedule of Values.
4. Contractor's Construction Schedule.
5. Submittal Schedule.
6. List of Contractor's staff assignments.
7. Initial progress report.
9. Certificates of insurance and insurance policies.
11. Data needed to acquire the University's insurance.
12. Initial settlement survey and damage report, if required.

D. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment.
1. This application shall reflect Certificates of Partial Substantial Completion issued previously for University occupancy of designated portions of the Work.
2. Administrative actions and submittals that shall precede or coincide with this application include:
   a. Warranties (guarantees) and maintenance agreements.
   b. Test/adjust/balance reports.
   c. Operation and Maintenance Manuals.
   d. Meter readings if appropriate.
   e. Startup performance reports.
   f. Commissioning Reports.
   g. Final cleaning.
   h. Application for reduction of retainage and consent of surety.
   i. Advice on shifting insurance coverages.
   j. Final progress photographs.
   k. List of incomplete Work, recognized as exceptions to University's Certificate of Substantial Completion.

E. Final Payment Application: Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include the following:
1. Completion of Project closeout requirements.
2. Completion of items specified for completion after Substantial Completion.
3. Resolve all previously unsettled claims.
4. Resolve all previously incomplete Work.
5. Transmittal of required Project construction records to the University.
6. Proof that taxes, fees, and similar obligations were paid.
7. Removal of temporary facilities and services.
8. Removal of surplus materials, rubbish, and similar elements.
9. Change of door locks to University's access.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)
END OF SECTION 010270
SECTION 010350 - MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. Drawings and general provisions of the Contract, including General and Supplementary
      Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY
   A. This Section specifies administrative and procedural requirements for handling and
      processing contract modifications.

1.3 MINOR CHANGES IN THE WORK
   A. The University will issue supplemental instructions authorizing minor changes in the
      Work, not involving adjustment to the Contract Sum or Contract Time.

1.4 CHANGE ORDER PROPOSAL REQUESTS
   A. University Initiated Change Order Proposal Requests: The University will issue a
      detailed description of proposed changes in the Work that will require adjustment to the
      Contract Sum or Contract Time. If necessary, the description will include supplemental
      or revised Drawings and Specifications.
      1. Proposal requests issued by the University are for information only. Do not
         consider them as an instruction either to stop work in progress or to execute the
         proposed change.
      2. Within a mutually agreed upon time period, submit an estimate of cost necessary
         to execute the change to the University for review.
         a. Include a list of quantities of products required and unit costs, with the
            total amount of purchases to be made. Where requested, furnish survey
            data to substantiate quantities. Include required labor hours and unit
            costs, with totals for each labor category. Include all credits for deleted
            work.
         b. Indicate applicable taxes, delivery charges, equipment rental, and
            amounts of trade discounts, for new work and deleted work.
         c. Include a statement indicating the effect the proposed change in the
            Work will have on the Contract Time.
   B. Contractor-Initiated Proposals: When latent or unforeseen conditions require
      modifications to the Contract, the Contractor may propose changes by submitting a
      request for a change to the University.
      1. Include a statement outlining the reasons for the change and the effect of the
         change on the Work. Provide a complete description of the proposed change.
         Indicate the effect of the proposed change on the Contract Sum and Contract
         Time.
      2. Include a list of quantities of products required and unit costs, with the total
         amount of purchases to be made. Where requested, furnish survey data to
         substantiate quantities. Include required labor hours and unit costs, with totals for
         each labor category. Include all credits for deleted work.
3. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts, for new work and deleted work.

C. Proposal Request Form: Use forms provided by the Owner for Change Order Proposals.

1.5 CHANGE ORDER PROCEDURES

A. Upon the University's approval of a Proposal Request, the University will issue a Change Order Requisition for signatures of the Contractor followed by a Notice to Proceed.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 010350
SECTION 010950 - REFERENCE STANDARDS AND DEFINITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 DEFINITIONS

A. General: Basic contract definitions are included in the Conditions of the Contract.

B. "Indicated": The term "indicated" refers to graphic representations, notes, or schedules on the Drawings, or other paragraphs or Schedules in the Specifications, and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the reader locate the reference. Location is not limited.

C. "Directed": Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by the University, requested by the University, and similar phrases.

D. "Approved": The term "approved," when used in conjunction with the University's action on the Contractor's submittals, applications, and requests, is limited to the University's duties and responsibilities as stated in the Conditions of the Contract.

E. "Regulations": The term "regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.

F. "Furnish": The term "furnish" means supply and deliver to the Project Site, ready for unloading, unpacking, assembly, installation, and similar operations.

G. "Install": The term "install" describes operations at the Project Site including the actual unloading, unpacking, assembly, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

H. "Provide": The term "provide" means to furnish and install, complete and ready for the intended use.

I. "Installer": An installer is the Contractor or another entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, or similar operations. Installers are required to be experienced in the operations they are engaged to perform.

1. The term "experienced," when used with the term "installer," means having a minimum of 5 previous projects similar in size and scope to this Project, being familiar with the special requirements indicated, and having complied with requirements of authorities having jurisdiction.

2. Trades: Using terms such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespersons of the corresponding generic name.
3. Assigning Specialists: Certain Sections of the Specifications require that specific construction activities shall be performed by specialists who are recognized experts in those operations. The specialists must be engaged for those activities, and their assignments are requirements over which the Contractor has no option. However, the ultimate responsibility for fulfilling contract requirements remains with the Contractor.
   a. This requirement shall not be interpreted to conflict with enforcing building codes and similar regulations governing the Work. It is also not intended to interfere with local trade-union jurisdictional settlements and similar conventions.

J. "Project Site" is the space available to the Contractor for performing construction activities, either exclusively or in conjunction, with others performing other work as part of the Project. The extent of the Project Site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.

K. "Testing Agencies": A testing agency is an independent entity engaged to perform specific inspections or tests, either at the Project Site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

1.3 SPECIFICATION FORMAT AND CONTENT EXPLANATION

A. Specification Format: These Specifications are organized into Divisions and Sections based on CSI's 16-Division format and UMB’s Master format numbering system.

B. Specification Content: This Specification uses certain conventions regarding the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations or circumstances. These conventions are explained as follows:
   1. Abbreviated Language: Language used in Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be interpolated as the sense requires. Singular words will be interpreted as plural and plural words interpreted as singular where applicable as the context of the Contract Documents indicates.
   2. Streamlined Language: The Specifications generally use the imperative mood and streamlined language. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the Text, subjective language is used for clarity to describe responsibilities that must be fulfilled indirectly by the Contractor or by others when so noted.
      a. The words "shall be" are implied where a colon (:) is used within a sentence or phrase.

1.4 INDUSTRY STANDARDS

A. Applicability of Standards: Except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

B. Publication Dates: Comply with the standards in effect as of the date of the Contract Documents.

C. Conflicting Requirements: Where compliance with 2 or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or
quality levels, comply with the most stringent requirement. Refer to the University before proceeding for a decision on requirements that are different but apparently equal, and where it is uncertain which requirement is the most stringent.

1. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum acceptable. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements. Refer uncertainties to the University for a decision before proceeding.

D. Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents.

1. Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source.

E. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards-generating organization, authorities having jurisdiction, or other entity applicable to the context of the text provision. Refer to Gale Research Co.'s "Encyclopedia of Associations," available in most libraries.

1.5 SUBMITTALS

A. Permits, Licenses, and Certificates: For the University's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 010950
SECTION 012000 - PROJECT MEETINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. Drawings and general provisions of the Contract, including General and Supplementary
      Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY
   A. This Section specifies administrative and procedural requirements for project meetings,
      including, but not limited to, the following:
      1. Preconstruction conferences.
      2. Progress meetings.
      3. Coordination meetings.

1.3 PRECONSTRUCTION CONFERENCE
   A. The Contractor shall schedule a preconstruction conference before starting construction,
      at a time convenient to the Contractor and the University, but no later than 15 days after
      execution of the Agreement. The conference will be held at a site identified by the
      University.
      1. The Contractor will conduct the meeting. Minutes will be recorded and
         distributed to participants in accordance with contract requirements.
   B. Attendees: Authorized representatives of the University, University, and their
      consultants; the Contractor and its superintendent; major subcontractors; and other
      concerned parties shall attend the conference. All participants at the conference shall be
      familiar with the Project and authorized to conclude matters relating to the Work.
   C. Agenda: Discuss items of significance that could affect progress, including, but not
      limited to, the following:
      1. Tentative construction schedule.
      2. Critical work sequencing.
      3. Designation of responsible personnel.
      4. Procedures for processing field decisions and Change Orders.
      5. Procedures for processing Applications for Payment.
      6. Procedures for processing Requests for Information (RFI’s).
      7. Procedures for processing University’s Supplemental Instructions and Contract
         Clarification.
      9. Submittal of Shop Drawings, Product Data, and Samples.
      11. Use of the premises.
      13. Office, work, and storage areas.
      14. Equipment deliveries and priorities.
      15. Safety procedures.
      17. Housekeeping.
18. Working hours.

1.4 PROGRESS MEETINGS

A. The Contractor shall schedule and administer bi-weekly progress meetings throughout the progress of work. The progress meetings will be held at a site identified by the University.
   1. The Contractor will conduct the meeting, record minutes, and distribute copies to participants.

B. Attendees: In addition to representatives of the University and the University, each subcontractor, or other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.

C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the status of the Project.
   1. Contractor's CPM Construction Schedule: Review progress since the last meeting. Determine status of each activity in relation to the Contractor's Construction Schedule, whether on time, ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to insure that current and subsequent activities will be completed within the Contract Time. Determine status of tasks on critical path. Identify additional tasks becoming critical due to delays.
   2. Review the present and future needs of each entity present, including, but not limited to, the following:
      a. Interface requirements.
      b. Time.
      c. Sequences.
      d. Status of submittals.
      e. Deliveries.
      f. Off-site fabrication problems.
      g. Access.
      h. Site utilization.
      i. Temporary facilities and services.
      j. Hours of work.
      k. Hazards and risks.
      l. Housekeeping.
      m. Quality and work standards.
      n. Change Orders.
      o. Documentation of information for payment requests.
      p. Review submittal log.
      q. Review RFI log.
      r. Review Change Order log.
      s. Review upcoming outages, testing and inspections.

1.5 COORDINATION MEETINGS
A. Conduct project coordination meetings at regular intervals convenient for all parties involved. Project coordination meetings are in addition to specific meetings held for other purposes, such as regular progress meetings.

B. Request representation at each meeting by every party currently involved in coordination or planning for the construction activities involved.

C. Record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

D. Review the progress of other construction activities and preparations for the particular activity under consideration at each preinstallation conference, including requirements for the following:
   2. Options.
   3. Related Change Orders.
   4. Purchases.
   5. Deliveries.
   6. Shop Drawings, Product Data, and quality-control samples.
   7. Review of mockups.
   8. Possible conflicts.
  10. Time schedules.
  12. Manufacturer's recommendations.
  13. Warranty requirements.
  15. Acceptability of substrates.
  16. Temporary facilities.
  17. Space and access limitations.
  18. Governing regulations.
  20. Inspecting and testing requirements.
  22. Recording requirements.
  23. Protection.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 012000
SECTION 013000 - SUBMITTALS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY
   A. This Section includes administrative and procedural requirements for all submittals, required for the installation and completion of the work for the project. Submittals include three (3) types of submittals, Construction Submittals, Administrative Submittals and Quality Control Submittals as defined hereinafter.
   B. UM Standard Project Forms
      1. The Contractor, and A/E shall use the following UM Standard Project Submittal Forms for all submissions as follows:
         a. UM Standard Project Submittal Form
         b. UM Standard Project RFI Form
      2. These forms are available at the UMB Architecture Engineering and Construction Documents web site at http://www.umaryland.edu/designandconstruction/documents/then through the link for AEC Standards.

1.3 DEFINITIONS
   A. Construction Submittals: Construction Submittals are defined as submittals which include all information related to products, materials, and equipment used for the construction of the project. Unless otherwise indicated all references to “Submittals” in the documents are for Construction Submittals. Construction Submittals: Such submittals shall include, but are not limited to, the following:
      1. Contractor's construction schedule.
      2. Submittal schedule.
      3. Daily construction reports.
      4. Shop Drawings.
      5. Product Data.
      6. Samples.
      7. Quality assurance submittals.
      8. Fabrication drawings.
      9. Installation drawings.
     10. Setting diagrams.
     11. Shop work manufacturing instructions.
     12. Templates and patterns.
     14. Coordination drawings.
     15. Requests for Information (RFI’s).
   B. Administrative Submittals: Administrative Submittals are defined as submittals which include all information related to administrative documentation for the project. Refer to
other Division 1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals shall include, but are not limited to, the following:
1. Applications for Payment.
2. Performance and payment bonds.
3. Insurance certificates.
4. List of subcontractors.

C. Quality Control Submittals: Quality-control submittals are defined as submittals which include all information related to administrative documentation for the project. Such submittals shall include, but are not limited to, the following:
1. Design data.
2. Certifications.
3. Manufacturer's instructions.
4. Manufacturer's field reports.

D. Coordination Drawings: Coordination Drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended.
1. Preparation of Coordination Drawings is specified in Division 1 Section "Coordination" and may include components previously shown in detail on Shop Drawings or Product Data.

E. Samples: Samples include, but are not limited to, the following:
1. Partial Sections of manufactured or fabricated components.
2. Small cuts or containers of materials.
3. Complete units of repetitively used materials.
4. Swatches showing color, texture, and pattern.
5. Color range sets.
6. Components used for independent inspection and testing.
7. Field samples.
8. Field mock-ups

F. Field Samples: Field Samples are full-size physical examples erected on-site to illustrate finishes, coatings, workmanship, and finish materials. Field samples are used to establish the standard by which the work will be judged.

G. Mockups: Mockups are full-size assemblies for review of construction, materials, equipment, fittings, workmanship, coordination, testing, and operation; they are not Field Samples.

H. Product Data: Product data shall include, but are not limited to, the following:
1. Manufacturer's product specifications.
2. Manufacturer's installation instructions.
4. Catalog cuts.
5. Roughing-in diagrams and templates.
7. Printed performance curves.
8. Operational range diagrams.
10. Standard product operating and maintenance manuals.
11. Certified capacity and performance data.
1.4 GENERAL SUBMITTAL PROCEDURES

A. Submissions: Owner requires that all construction and administration type submittals be transmitted electronically in “pdf” format for all products, materials, and equipment related to construction and all documentation related to the administration of the project. However, Owner will accept hard copies (paper copies) of construction and administration type submittals from the Contractor when electronic files cannot be used.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay, and in accordance with the project CPM schedule.
   1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
   2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
      a. The University reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
   3. Scheduling: Division 1 Section “Schedules and Reports” includes the Submittal Schedule listing submittals and indicating time requirements for coordination of submittal activity with related construction operations.
   4. Processing: To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.
      a. Allow two (2) weeks for initial review. Allow additional time if the University must delay processing to permit coordination with subsequent submittals.
      b. If an intermediate submittal is necessary, process the same as the initial submittal.
      c. Allow two (2) weeks for reprocessing each submittal.
      d. No extension of Contract Time will be authorized because of failure to transmit submittals to the University sufficiently in advance of the Work to permit processing.
      e. The Contractor or CM shall conduct an internal review of every submittal to ensure accuracy and completeness prior to submission to the A/E.

C. Submittal Preparation: The Contractor or CM shall attach the Owner Standard Project Submittal Form to the electronic file for each submittal. The contractor or Contractor shall complete the upper portion of the forms as appropriate.

D. Submittal Transmittal: Include an electronic transmittal with each submittal file for transmittal and handling. Each submittal file shall be transmitted electronically from the Contractor to the A/E. Forward a copy of the electronic transmittal to the Owner Project Manager. The A/E and the University will not accept submittals received from sources other than the Contractor or Contractor.
   1. On the transmittal, record relevant project information.
   2. Include Contractor's certification that information submitted complies with Contract Document requirements.
3. Transmittal Form: Prepare. Use the Standard Submittal Transmittal Form. In the places on the form provide the following information:
   a. Project name.
   b. Date.
   c. Destination (To:).
   d. Source (From:).
   e. Names of the subcontractor, manufacturer, and supplier.
   f. Category and type of submittal.
   g. Submittal purpose and description.
   h. Submittal and transmittal distribution record.
   i. Remarks.
   j. Signature of transmitter.

E. Requests for Information (RFI’s): Use the Owner Standard RFI Form for all Requests for Information. The Contractor or contractor shall submit each RFI to the A/E and copy the Owner Project Manager.

F. Contractor’s Construction Schedule: Refer To Division 1 Section CPM Schedules

G. Shop Drawings and Coordinated Drawings
   1. In addition to the general submittal procedures, the following requirements apply to shop drawings and coordination drawings:
      a. Submit newly prepared information drawn accurately to scale. Indicate deviations from the Contract Documents. The Contractor or contractor shall not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.
   2. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:
      a. Dimensions.
      b. Identification of products and materials included by sheet and detail number.
      c. Compliance with specified standards.
      d. Notation of coordination requirements.
      e. Notation of dimensions established by field measurement.
   3. Submit Coordination Drawings where required for integration of different construction elements, and in compliance with the requirements of Division 1 Section “Coordination”. Show construction sequences and relationships of separate components where necessary to avoid conflicts in utilization of the space available.
   4. Electronic Submittals: When shop drawings are transmitted electronically, submit one (1) electronic file for each shop drawing. Each file shall include all required submittal data and the Submittal Form for each submittal. The A/E will review and make appropriate comments on the electronic file, sign off the forms with action taken, retain one (1) copy for their record, and forward the electronic file to the University. The University will review and make additional comments as necessary; forward their comments to the A/E for their record and information, retain one (1) copy of the electronic file for their use, and return the electronic file to the CM or Contractor. For submittals requiring resubmission, the process
will be repeated until submittals are considered acceptable by the A/E and the University.

5. Shop Drawing shall not be used without an appropriate final stamp indicating the action taken.

H. Product Data

1. In addition to the general submittal procedures, the following requirements apply to product data submittals:
   a. Collect Product Data into a single submittal for each element of construction or system. Product Data shall include printed information, such as manufacturer's general product information, installation instructions, catalog cuts, standard color charts, roughing-in dimensions, diagrams and templates, standard wiring diagrams, and performance data and curves.
   b. Mark each copy to show applicable choices and options. Where printed product data includes information on several products that are either not required or are optional materials, arrangements or components that require a selection or indicator, mark copies to indicate the applicable information. Include the following information:
      1) Manufacturer's printed recommendations.
      2) Compliance with trade association standards.
      3) Compliance with recognized testing agency standards.
      4) Application of testing agency labels and seals.
      5) Notation of dimensions verified by field measurement.
      6) Notation of coordination requirements.
      7) Compliance with contract documents.
      8) Specification Section and paragraph.
   c. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
   d. Electronic Submittals: When product data submittals are transmitted electronically, submit one (1) electronic file for each shop submittal. Each file shall include all required submittal data and the Submittal Form for each submittal. The A/E shall review and make appropriate comments on the electronic file, sign off the forms with action taken, retain one (1) copy for their record and forward the electronic file to the University. The University will review and make additional comments as necessary, sign off the forms, retain one (1) copy of the electronic file for their use, forward their comments to the A/E for their record and information, and return the electronic file to the CM or Contractor. For submittal files requiring resubmission, the process will be repeated until submittals are considered acceptable by the A/E and the University.
   e. Distribution: Forward one (1) copy of each approved submittal file to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.
   f. Do not proceed with installation until a copy of approved Product Data is in the Installer's possession.
   g. Do not permit use of unmarked copies of Product Data in connection with construction.
The Contractor shall retain one (1) copy of the final submittals for inclusion in the O&M Manuals.

I. Samples
   1. In addition to the general submittal procedures, the following requirements apply to samples:
      a. Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
         1) Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least three (3) multiple units that show approximate limits of the variations.
         2) Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, & details of assembly, connections, operation, and similar construction characteristics.
      b. Submittals: Submit three (3) sets. The A/E will retain one (1) set and send two (2) sets marked with the action taken to the University. The University will retain one (1) set and return the other set to the CM or Contractor.
      c. Maintain sets of Samples, as returned, at the project Site, for quality comparisons throughout the course of construction.
         1) Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
         2) Approved sample sets will be used by the A/E and the University to determine final acceptance of the construction associated with each set.

J. Quality Assurance Submittals
   1. In addition to the general submittal procedures, the following requirements apply to quality assurance submittals:
      a. Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality control submittals as required under other Sections of the Specifications.
      b. Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.
      c. Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.
      d. Inspection and Test Reports: Requirements for submittal of inspection and test reports from independent testing agencies are specified in Division 1 Section "Quality Control."

K. Architect/Engineer's (A/E) Action
   1. The A/E will review each submittal, mark to indicate action taken, and transmit the submittals promptly to the UM OFM Project Manager.
a. Compliance with the contract documents is the Contractor's responsibility.

2. Submittal Action: The A/E will fill in the appropriate boxes on the UM Standard Project Submittal Tracking Form attached to each set of submittals. The A/E will also fill in the appropriate boxes on the UM Standard Project Submittal Form attached to each submittal and attach their comments as necessary. The University will fill in the lower portion of the form as necessary on each submittal to indicate the University has reviewed the submittals. The A/E’s submittal stamp should not be used on submittals for UM projects.

L. Construction Manager’s (CM) Or Contractor Action

1. The Contractor shall be responsible for the collection of all project submittals from the suppliers and sub contractors for distribution to the A/E and the University for review. The Contractor is responsible for the redistribution of the reviewed submittals back to the sub contractors and suppliers for appropriate action based on the A/E and University review comments.

2. Submittal Action: The UM Standard Project Submittal Form will indicate how the CM or Contractor needs to proceed with each submittal as follows:
   a. Action – “No Exceptions Taken”: Submittals returned to the Contractor as "No Exceptions Taken" indicates the submitted material and equipment appears to comply with requirements of the Contract Documents and therefore the work related to the submittal can proceed. Final payment depends on that compliance.
   b. Action – "Note Markings/Attachments": Submittals returned to the Contractor as "Note Markings/Attachments" indicates the submitted material and equipment will appear to comply with requirements of the Contract Documents provided the noted comments become a part of the submission and therefore the work related to the submittal can proceed. Final payment depends on that compliance.
   c. Action – “Amend & Resubmit”: Submittals returned to the Contractor as "Amend & Resubmit" indicates some of the submitted material and equipment does not comply with the requirements of the Contract Documents and therefore the work related to the submittal cannot proceed until the re-submittal process confirms that the material and equipment complies with the requirements of the Contract Documents. Final payment depends on that compliance.
   d. Action – “Rejected/Resubmit”: Submittals returned to the Contractor as "Rejected/Resubmit" indicates that there are significant and fundamental deficiencies indicated in the submitted material and equipment, and does not comply with the requirements of the Contract Documents. Therefore the work related to the submittal cannot proceed until the re-submittal process confirms that the material and equipment complies with the requirements of the Contract Documents. Final payment depends on that compliance.

3. When the CM or Contractor receives submittals as “Amend & Resubmit” or “Rejected/Resubmit,” the Contractor or Contractor shall not proceed with work covered by these submittals, including purchasing, fabrication, delivery, or other activity. Revise or prepare new submittals according to the notations; resubmit without delay. Repeat as necessary to obtain acceptance from the A/E and UM.
4. Do not use, or allow others to use, submittals marked “Amend & Resubmit” or “Rejected/Resubmit” at the Project Site or elsewhere where work is in progress.

5. Other Action: Where a submittal is for information or record purposes or special processing or other activity, the University will return the submittal marked "Action Not Required."

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 STANDARD PROJECT SUBMITTAL FORM

A. The electronic file for this form is available at the UM Architecture Engineering and Construction Documents web site.
### STANDARD PROJECT SUBMITTAL FORM

<table>
<thead>
<tr>
<th>PROJECT NAME:</th>
<th>PROJECT NUMBER:</th>
<th>UM SYSTEM CAMPUS:</th>
</tr>
</thead>
</table>

**CONTRACTOR:**
Submission is in compliance with contract requirements, including dimensions, quantities and all trade coordination.

- Submitted as specified
- Substitution in accordance with Insert Spec Section Here

Date: / / By: 

**C.M.:**
Submit No.

Insert Submittal # above

Submission to the University and AE is in accordance with Contract Insert Contract No. Here

Date: / / By: 

**PROJECT ARCH:**

- No Exceptions Taken
- Amend & Resubmit

Date: / / By: 

**ASSOCIATED ARCH:**

- No Exceptions Taken
- Note Markings/Attachments
- Rejected/Resubmit

Date: / / By: 

**CIVIL ENGINEER:**

- No Exceptions Taken
- Note Markings/Attachments
- Amend & Resubmit

Date: / / By: 

**STRUCTURAL ENGINEER:**

- No Exceptions Taken
- Note Markings/Attachments
- Amend & Resubmit

Date: / / By: 

**MEP ENGINEER:**

- No Exceptions Taken
- Note Markings/Attachments
- Amend & Resubmit

Date: / / By: 

**CONSULTANT:**

- No Exceptions Taken
- Note Markings/Attachments
- Amend & Resubmit

Date: / / By: 

**OWNER:**

Date: / / Regional Review By: 

Date: / / TU Review By: 

Owner Comments: 

Review by Owner does not relieve the CM and/or AE of their obligations under the above noted contracts respectively.

---

### 3.2 STANDARD PROJECT RFI FORM

A.  The electronic file for this form is available at the UM Architecture Engineering and Construction Documents web site.
<table>
<thead>
<tr>
<th>REQUEST FOR INFORMATION (RFI) No.:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject:</td>
<td></td>
</tr>
<tr>
<td>Discipline:</td>
<td></td>
</tr>
<tr>
<td>Specification Reference:</td>
<td></td>
</tr>
<tr>
<td>Drawing Reference:</td>
<td></td>
</tr>
<tr>
<td>Information Requested:</td>
<td></td>
</tr>
</tbody>
</table>

Requested By:                   Date Requested:

Contractors Proposed Solution:

Submitted By:                   Date Submitted:

A/E Response:

Reviewed By:                   Date Reviewed:

UME Response:

Reviewed By:                   Date Reviewed:

END OF SECTION 013000
SECTION 013110 - SCHEDULES AND REPORTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY
A. This Section includes administrative and procedural requirements for schedules, reports, and critical path method scheduling required for proper performance of the Work, including:
   1. Submittal schedule.
   2. Schedule of inspections and tests.
   3. Field correction reports.
   4. Special reports.

1.3 SUBMITTAL PROCEDURES
A. Coordination: Coordinate preparation and processing of schedules and reports with performance of other construction activities.

1.4 CONSTRUCTION SCHEDULE
A. Prepare the Contractor's Construction Schedule using Microsoft Project or other application selected by the Contractor and acceptable to Owner.
B. Schedule Updating: Revise the schedule immediately after each meeting or other activity, where revisions have been recognized or made. Issue the updated schedule at each project meeting and submit with application for payment.

1.5 SUBMITTAL SCHEDULE
A. After development and acceptance of the Contractor's Construction Schedule, prepare a complete schedule of submittals. Submit the schedule within ten (10) days of the date required for submittal of the Contractor's Construction Schedule.
   1. Coordinate Submittal Schedule with the list of subcontracts, Schedule of Values and the list of products as well as the Contractor's Construction Schedule.
B. Prepare the schedule in chronological order. Provide the following information:
   1. Scheduled date for the first submittal.
   2. Related Section number.
   3. Submittal category.
   4. Name of the subcontractor.
   5. Description of the part of the Work covered.
   6. Latest scheduled date for the University’s review/approval.
C. Distribution: Upon final approval of the University, print and distribute copies to the University, subcontractors, and other parties required to comply with submittal dates indicated.
   1. Post copies in the Project meeting room and temporary field office.
2. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned part of the Work and are no longer involved in construction activities.

D. Schedule Updating: Revise the schedule after each meeting or other activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

1.6 SCHEDULE OF INSPECTIONS AND TESTS

A. Prepare a schedule of inspections, tests, and similar services required by the Contract Documents. Submit the schedule within thirty (30) days of the date established for commencement of the Work.

B. Form: The schedule shall be in tabular form and shall include, but not be limited to, the following:
   1. Specification Section number.
   2. Description of the test.
   3. Identification of applicable standards.
   4. Identification of test methods.
   5. Number of tests required.
   6. Time schedule or time span for tests.
   7. Entity responsible for performing tests.
   8. Requirements for taking samples.
   9. Unique characteristics of each service.

C. Distribution: Distribute the schedule to the University, and each party involved in performance of portions of the Work where inspections and tests are required.

D. Schedule Updating: Revise the schedule after each meeting or other activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

1.7 SPECIAL REPORTS

A. General: Submit special reports directly to the University within one day of an occurrence. Submit a copy to other parties affected by the occurrence.

B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at the site, prepare and submit a special report. List the chain of events, persons participating, response by the Contractor's personnel, an evaluation of the results or effects and similar pertinent information. Advise the University in advance when such events are anticipated or predictable.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013110
SECTION 015000 - CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes requirements for construction facilities and temporary controls, including temporary utilities, support facilities, and security and protection.

B. Temporary utilities include, but are not limited to, the following:

1. None.

C. Support facilities include, but are not limited to, the following:

1. None.

D. Security and protection facilities include, but are not limited to, the following:

1. Barricades, warning signs, and lights.

1.3 SUBMITTALS

A. Implementation and Termination Schedule: Within 15 days of the date established for commencement of the Work, submit an implementation schedule.

1.4 QUALITY ASSURANCE

A. Regulations: Comply with industry standards and applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:

1. Building code requirements.
2. Health and safety regulations.
3. Utility company regulations.
4. Maryland Department of the Environment regulations.


1.5 PROJECT CONDITIONS

A. Conditions of Use: Keep facilities clean and neat in appearance. Operate in a safe and efficient manner. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.
PART 2 - PRODUCTS

2.1 MATERIALS
   A. General: Provide new materials. If acceptable to the University, the Contractor may use undamaged, previously used materials in serviceable condition. Provide materials suitable for use intended.
   B. Open-Mesh Fencing: Provide 0.120-inch- (3-mm-) thick, galvanized 2 inch (50-mm) chain link fabric fencing six (6) feet (2 m) high with galvanized barbed-wire top strand and galvanized steel pipe posts, 1-1/2 inches (38 mm) I.D. for line posts and 2-1/2 inches (64 mm) I.D. for corner posts around the work area.

2.2 EQUIPMENT
   A. General: Provide new equipment. If acceptable to the University, the Contractor may use undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.

PART 3 - EXECUTION

3.1 INSTALLATION
   A. Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.
   B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 SECURITY AND PROTECTION FACILITIES INSTALLATION
   A. Barricades, Warning Signs, and Lights: Comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.
   B. Enclosure Fence: Before work begins, install an enclosure fence with lockable entrance gates. Coordinate location with owner sufficient to accommodate construction operations. Install in a manner that will prevent people, dogs, and other animals from easily entering the site, except by the entrance gates.
      1. Provide open-mesh, chainlink fencing with posts set on temporary stands.
   C. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations. Avoid use of tools and equipment that produce harmful noise. Restrict use of noise-making tools and equipment to hours that will minimize complaints from persons or firms near the site.

3.3 OPERATION, TERMINATION, AND REMOVAL
   A. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
B. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements.

C. Termination and Removal: Unless the University requests that it be maintained longer, remove each temporary facility when the need has ended, when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are the Contractor's property. The University reserves the right to take possession of project identification signs.

2. At Substantial Completion, clean and renovate permanent facilities used during the construction period including, but not limited to, the following:
   a. Replace air filters and clean inside of ductwork and housings.
   b. Replace significantly worn parts and parts subject to unusual operating conditions.
   c. Replace lamps burned out or noticeably dimmed by hours of use.

END OF SECTION 015000
SECTION 016000 - MATERIALS AND EQUIPMENT, DELIVERY, STORAGE, AND HANDLING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY
   A. This Section includes administrative and procedural requirements governing the Contractor's selection of products for use in the Project.

1.3 DEFINITIONS
   A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.
   1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
      a. "Named Products" are items identified by the manufacturer's product name, including make or model number or other designation, shown or listed in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
      b. "Foreign Products," as distinguished from "domestic products," are items substantially manufactured (50 percent or more of value) outside the United States and its possessions. Products produced or supplied by entities substantially owned (more than 50 percent) by persons who are not citizens of, nor living within, the United States and its possessions are also considered to be foreign products.
   2. "Materials" are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
   3. "Equipment" is a product with operational parts, whether motorized or manually operated, that requires service connections, such as wiring or piping.

1.4 SUBMITTALS:
   A. All submittals shall comply with the requirements in the “SUBMITTALS” section.

1.5 QUALITY ASSURANCE
   A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.
      1. When specified products are available only from sources that do not, or cannot, produce a quantity adequate to complete project requirements in a timely manner, consult with the University to determine the most important product qualities before proceeding. Qualities may include attributes, such as visual appearance, strength, durability, or compatibility. When a determination has been made,
select products from sources producing products that possess these qualities, to
the fullest extent possible.

B. Compatibility of Options: When the Contractor is given the option of selecting between 2
or more products for use on the Project, the product selected shall be compatible with
products previously selected, even if previously selected products were also options.

C. Foreign Product Limitations: Except under one or more of the following conditions,
provide domestic products, not foreign products, for inclusion in the Work:
1. No available domestic product complies with the Contract Documents.
2. Domestic products that comply with the Contract Documents are available only
   at prices or terms substantially higher than foreign products that comply with the
   Contract Documents.

D. Nameplates: Except for required labels and operating data, do not attach or imprint
manufacturer's or producer's nameplates or trademarks on exposed surfaces of products
that will be exposed to view in occupied spaces or on the exterior.
1. Labels: Locate required product labels and stamps on concealed surfaces or,
   where required for observation after installation, on accessible surfaces that are
   not conspicuous.
2. Equipment Nameplates: Provide a permanent nameplate on each item of service
   connected or power-operated equipment. Locate on an easily accessible surface
   that is inconspicuous in occupied spaces. The nameplate shall contain the
   following information and other essential operating data:
   a. Name of product and manufacturer.
   b. Model and serial number.
   c. Capacity.
   d. Speed.
   e. Ratings.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products according to the manufacturer's recommendations,
using means and methods that will prevent damage, deterioration, and loss, including
theft.
1. Schedule delivery to minimize long-term storage at the site and to prevent
   overcrowding of construction spaces.
2. Coordinate delivery with installation time to assure minimum holding time for
   items that are flammable, hazardous, easily damaged, or sensitive to
deterioration, theft, and other losses.
3. Deliver products to the site in an undamaged condition in the manufacturer's
   original sealed container or other packaging system, complete with labels and
   instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products upon delivery to ensure compliance with the Contract
   Documents and to ensure that products are undamaged and properly protected.
5. Store products at the site in a manner that will facilitate inspection and
   measurement of quantity or counting of units.
6. Store heavy materials away from the Project structure in a manner that will not
   endanger the supporting construction.
7. Store products subject to damage by the elements above ground, under cover in a
   weather tight enclosure, with ventilation adequate to prevent condensation.
MATERIALS AND EQUIPMENT, DELIVERY, STORAGE, AND HANDLING

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION

A. General Product Requirements: Provide products that comply with Contract Documents that are undamaged and new at time of installation.
   1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for complete installation and intended use and effect.
   2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
   3. Where products are accompanied by the term as selected, University will make selection.
   4. Where products are accompanied by the term match sample, sample to be matched is University's.

B. General Compliance Requirements: Compliance requirements for individual products, as indicated in Contract Documents, are multiple in nature and may include generic descriptions, performance requirements, compliance with reference standards, conformance with graphic details and other similar forms and methods of indicating requirements, all of which must be complied with.

C. Procedures for Selecting Products: Contractor's options for selecting products are limited by Contract Document requirements, and are not controlled by industry traditions or procedures experienced by Contractor on previous construction projects.

D. Products specified by Reference Standards, Codes and Regulations: Select from among products which can be shown to comply to referenced documents.

E. Products specified by Naming Products and Manufacturers: Select from among products listed.

F. Products specified by Naming One Manufacturer's Product as the Basis-of-Design with Reference to Other Manufacturers: Select either the specified Basis-of-Design product or an approved comparable product by one of the other named manufacturers.
   1. Comply with provisions in Comparable Products Article to obtain approval for use of a comparable product by one of the named manufacturers.

G. Products specified by Naming One Manufacturer's Product and Indicating Option of Selecting Comparable Products by stating or Approved Equivalent or similar language: Select either the specified product or an approved comparable product.
   1. Comply with provisions in Comparable Products Article to obtain approval for use of an unnamed comparable product by another manufacturer.

H. Products specified by Naming One Manufacturer's Product with no inclusion of Approved Equivalent or similar language: No substitutions will be allowed.

I. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches University's
sample. University's decision will be final on whether proposed product matches satisfactorily.

J. Visual Selection Specification: Where Specifications include the phrase as selected from manufacturer's standard colors, patterns, textures or similar phrase, select a product that complies with other specified requirements. University will select color, pattern, and texture.

1. Standard Range: Where Specifications include the phrase standard range of colors, patterns, textures or similar phrase, University will select color, pattern, or texture from manufacturer's product line that does not include premium items.

2. Full Range: Where Specifications include the phrase full range of colors, patterns, textures or similar phrase, University will select color, pattern, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

A. Any proposed comparable products must be submitted as part of the Q/A bid process and is subject to approval by Towson University and the engineer of record during. If no comparable substitute is approved during bid phase, the awarded GC is required to use products specified in basis of design. Where Basis-of-Design products are specified by name, submit the following, in addition to other required submittals, to obtain approval of a comparable product by one of the named manufacturers.

1. Evidence that the proposed product does not require extensive revisions to the Contract Documents that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.

2. Detailed comparison of significant qualities of proposed product with the Basis-of-Design product in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, serviceability, visual effect, and specific features and requirements indicated.

3. Evidence that proposed product provides specified warranty.

4. List of similar installations for completed projects with project names and addresses and names and addresses of Universities, if requested.

5. Samples, if requested.

PART 3 - EXECUTION

3.1 INSTALLATION OF PRODUCTS

A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.

1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

B. Install products in accordance with the execution’s sections of the Project Manual.

END OF SECTION 016000
SECTION 017000 - CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY
A. This Section includes administrative and procedural requirements for contract closeout including, but not limited to, the following:
   1. Inspection procedures.
   2. Project record document submittal, including the following:
      4. Marked-up copies of Shop Drawings.
      5. Newly prepared drawings.
      7. Marked-up Product Data submittals.
      8. Record Samples.
   9. Field records for variable and concealed conditions.
   10. Record information on Work that is recorded only schematically.
   12. Preparing and submitting operation and maintenance manuals for building operating systems and equipment.
   13. Preparing and submitting instruction manuals covering the care, preservation, and maintenance of University products and finishes.
   14. Instruction of the University's operating personnel in the operation and maintenance of building systems and equipment.
   15. Submittal of warranties.
   16. Final cleaning.

B. Closeout requirements for specific construction activities are included in the appropriate Sections the specifications.

C. Environmental Requirements: Conduct cleaning and waste-disposal operations in compliance with local laws and ordinances. Comply fully with federal and local environmental and antipollution regulations.
   1. Do not dispose of volatile wastes, such as mineral spirits, oil, or paint thinner, in storm or sanitary drains.
   2. Burning or burying of debris, rubbish, or other waste material on the premises is not permitted.

D. Maintenance of Documents and Samples: Store record documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain record documents in good order and in a clean, dry, legible condition. Make documents and Samples available at all times for the University's inspections.

E. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the...
products. Manufacturer’s disclaimers and limitations on product warranties do not relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor.

1.3 DEFINITIONS

A. Standard product warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the University.

B. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the University.

1.4 WARRANTY REQUIREMENTS

A. Related Damages and Losses: When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such failure or must be removed and replaced to provide access for correction of warranted construction.

B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

C. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the University has benefited from use of the Work through a portion of its anticipated useful service life.

D. University's Recourse: Expressed warranties made to the University are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the University can enforce such other duties, obligations, rights, or remedies.

1. Rejection of Warranties: The University reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.

E. Where the Contract Documents require a special warranty, or similar commitment on the Work or part of the Work, the University reserves the right to refuse to accept the Work, until the Contractor presents evidence that entities required to countersign such commitments are willing to do so.

1.5 SUBSTANTIAL COMPLETION

A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.

1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete.
a. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.

b. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.

2. Advise the University of pending insurance changeover requirements.

3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.

4. Obtain and submit releases enabling the University unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.

5. Submit record drawings, maintenance manuals, final project photographs, damage or settlement surveys, property surveys, and similar final record information.

6. Deliver tools, spare parts, extra stock, and similar items, including inventory list.

7. Make final changeover of permanent locks and transmit keys to the University. Advise the University's personnel of changeover in security provisions.

8. Complete startup testing of systems and instruction of the University's operation and maintenance personnel. Discontinue and remove temporary facilities from the site, along with mockups, construction tools, and similar elements.

9. Complete final cleanup requirements, including touchup painting.

10. Touch up and otherwise repair and restore marred, exposed finishes.

B. Inspection Procedures: On receipt of a request for inspection, the University will either proceed with inspection or advise the Contractor of unfilled requirements. The University will prepare the Certificate of Substantial Completion following inspection or advise the Contractor of construction that must be completed or corrected before the certificate will be issued.

1. The University will repeat inspection when requested and assured that the Work is substantially complete.

2. Results of the completed inspection will form the basis of requirements for final acceptance.

1.6 FINAL ACCEPTANCE

A. Preliminary Procedures: Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.

1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and completed operations where required.

2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.

3. Submit a certified copy of the University's final punch list of items to be completed or corrected, endorsed and dated by the University. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance and will be endorsed and dated by the University.

4. Submit consent of surety to final payment.

5. Submit a final liquidated damages settlement statement.

6. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
B. Re-inspection Procedure: The University will re-inspect the Work upon receipt of notice that the Work, including inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to the University.

1. Upon completion of re-inspection, the University will prepare a certificate of final acceptance. If the Work is incomplete, the University will advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.

2. If necessary, re-inspection will be repeated.

1.7 QUALITY ASSURANCE

A. Maintenance Manual Preparation: In preparation of maintenance manuals, use personnel thoroughly trained and experienced in operation and maintenance of equipment or system involved.

1. Where maintenance manuals require written instructions, use personnel skilled in technical writing where necessary for communication of essential data.

2. Where maintenance manuals require drawings or diagrams, use draftsmen capable of preparing drawings clearly in an understandable format.

B. Instructions for the University's Personnel: Use experienced instructors thoroughly trained and experienced in operation and maintenance of equipment or system involved to instruct the University's operation and maintenance personnel.

1.8 RECORD DOCUMENT SUBMITTALS

A. Record Drawings (As-Buils):

1. Markup Procedure: During construction, maintain a set of blue- or black-line white prints of Contract Drawings and Shop Drawings for Project Record Document (AsBuilt) purposes.

   a. Mark these Drawings to show the actual installation where the installation varies from the installation shown originally. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later. Items required to be marked include, but are not limited to, the following:

      1) Dimensional changes to the Drawings.
      2) Changes made by change order.
      3) Changes made following the University's written orders.
      4) Details not on original Contract Drawings.

   b. Mark record prints of Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. Where Shop Drawings are marked, show cross-reference on Contract Drawings location.

   c. Mark record sets with red erasable colored pencil. Use other colors to distinguish between changes for different categories of the Work at the same location.

   d. Mark important additional information that was either shown schematically or omitted from original Drawings.

   e. Note change-order numbers, and similar identification.
2. Responsibility for Markup: The individual or entity who obtained record data, whether the individual or entity is the Installer, subcontractor, or similar entity, shall prepare the markup on record drawings.
   a. Accurately record information in an understandable drawing technique.
   b. Record data as soon as possible after obtaining it. Record and check the markup prior to enclosing concealed installations.
   c. At time of Substantial Completion, submit record drawings to the University for the University's records. Organize into sets and bind and label sets for the University's continued use.

B. Record Specifications
   1. During the construction period, maintain one copy of the Project Specifications, including addenda and modifications issued, for Project Record Document purposes.
      a. Mark the Specifications to indicate the actual installation where the installation varies from that indicated in Specifications and modifications issued. Note related project record drawing information, where applicable. Give particular attention to substitutions, selection of product options, and information on concealed installations that would be difficult to identify or measure and record later.
         1) In each Specification Section where products, materials, or units of equipment are specified or scheduled, mark the copy with the proprietary name and model number of the product furnished.
         2) Record the name of the manufacturer, supplier, installer, and other information necessary to provide a record of selections made and to document coordination with record Product Data submittals and maintenance manuals.
         3) Note related record Product Data, where applicable. For each principal product specified, indicate whether record Product Data has been submitted in maintenance manual instead of submitted as record Product Data.
      b. Upon completion of markup, submit record Specifications to the University.

C. Record Product Data: Maintain one copy of each Product Data submittal. Note related Change Orders and markup of record drawings and Specifications.
   1. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site and from the manufacturer's installation instructions and recommendations.
   2. Give particular attention to concealed products and portions of the Work that cannot otherwise be readily discerned later by direct observation.
   3. Upon completion of markup, submit three complete sets of record Product Data to the University for the University's records.

1.9 INSTRUCTIONS FOR THE UNIVERSITY’S PERSONNEL
   A. Prior to final inspection, instruct the University's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Provide instruction at mutually agreed upon times.
1. For equipment that requires seasonal operation, provide similar instruction during other seasons.
2. Use operation and maintenance manuals for each piece of equipment or system as the basis of instruction. Review contents in detail to explain all aspects of operation and maintenance.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by the manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 CLOSEOUT PROCEDURES

A. Operation and Maintenance Instructions: Arrange for each Installer of equipment that requires regular maintenance to meet with the University's personnel to provide instruction in proper operation and maintenance. Provide instruction by manufacturer's representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:
   1. Maintenance manuals.
   2. Record documents.
   3. Cleaning.
   4. Warranties and bonds.
   5. Maintenance agreements and similar continuing commitments.

3.2 FINAL CLEANING

A. General: The General Conditions require general cleaning during construction. Regular site cleaning is included in Division 1 Section "Construction Facilities and Temporary Controls."

B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
   1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion.
      a. Power wash all top slab surfaces when repairs are complete. Do not damage sealants.
      b. Remove petrochemical spills, stains, and other foreign deposits.
      c. Remove tools, construction equipment, machinery, and surplus material from the site.
      d. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
      e. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
g. Remove labels that are not permanent labels.
h. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
   1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
i. Wipe surfaces of mechanical and electrical equipment, elevator equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
j. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs and defective and noisy starters in fluorescent and mercury vapor fixtures.
k. Leave the Project clean and ready for occupancy.

C. Removal of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.

D. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the University's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.
   1. Where extra materials of value remain after completion of associated Work, they become the University's property. Dispose of these materials as directed by the University.

END OF SECTION 017000
SECTION 030130.71 - REHABILITATION OF CONCRETE

PART 1 - GENERAL

1.1 DEFINITIONS

A. When the term “the ENGINEER” is used in this Section it shall mean “the OWNER’s Structural Engineer”.

B. Repair Materials: Polymer Modified Concrete.

1.2 SCOPE

A. The work under this Section generally includes, but is not limited to, providing all labor, equipment, materials and tools necessary to inspect areas of localized concrete deterioration and to repair same. Specifically, the work includes, but is not necessarily limited to the following elements.

1. Visually review, supplemented by chain dragging and hammer sounding, all exposed concrete surfaces to locate and quantify the required concrete repairs noted on plans. Outline all repairs to the extents required to address deficiencies with approved marking medium and review with the ENGINEER prior to commencing repairs.

2. After the ENGINEER’s review and approval of outlined areas, execute concrete repairs as required by the Contract Documents.

1.3 MEASUREMENT AND PAYMENT

A. The concrete repairs shall be performed on a Lump Sum basis for the quantities established in the Bidding Documents for each repair type.

B. Provide the following Unit Prices for the purpose of adjusting the contract sum in the event the estimated quantities of work increase or decrease. Unit prices must be based on all work complete in place.

1. Partial-depth concrete slab repairs – top surface (SF);
2. Full-depth concrete slab repairs (SF);
3. Partial-depth concrete wall and column repairs – vertical surface (SF);
4. Partial-depth concrete repairs – overhead surface (SF);
5. Partial-depth concrete beam and tee web repairs - vertical surface (SF);
6. Epoxy resin crack repair – top surface (LF);
7. Crack injection repair – vertical surface (LF);
8. Crack injection repair – overhead surface (LF);
9. Joint Sealant repair (LF);
10. Reinforcement (LF);
11. Rout and seal crack (LF)

C. Ancillary items of work (such as the temporary support or reattachment of piping, conduits, etc.) which must be performed to properly execute the primary work
detailed on the drawings must be performed as part of the Lump Sum or Unit Price for the primary work item without additional compensation.

1.4 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including but not limited to, General and Supplementary Conditions apply to this Section. Related Sections include, but are not necessarily limited to, the following. Should conflicts arise between information shown in this Section 030130.71 and the following related Sections, the information in Section 030130.71 shall take precedence; except in all cases the most stringent requirements shall govern.

1. 01026 Unit Prices
2. 031000 Concrete Forming and Accessories
3. 032000 Concrete Reinforcing
4. 079200 Joint Sealants
5. 071800 Traffic Coatings

1.5 SUBMITTALS
A. Do not proceed with the work utilizing products or mixes associated with the following submittals until all submittals have been received, reviewed, and approved for use by the ENGINEER.

B. Manufacturer’s product information: For each type of manufactured material and product indicated include specifications, test data, and instructions for mixing, application and curing.

C. Material Certificates: Signed by manufacturers certifying that each of the following items complies with requirements:
   1. Cementitious materials and aggregates.
   2. Form materials and form-release agents.
   3. Steel reinforcement and reinforcement accessories.
   4. Admixtures.
   5. Curing materials.
   7. Adhesives.
   8. Repair materials.

D. Equipment and Procedures for Concrete Removal: Submit a list of concrete removal equipment to be used on the project, and the locations and circumstances under which each piece of equipment will be used.

E. Equipment and Procedures for Surface Preparation: Submit a description of the equipment and procedures that will be used to achieve the required bond of the repair material.

F. Concrete Conveyance and Placement Methods: Submit a summary of conveyance equipment and placement methods for the repair Work such as the use of pumping equipment, Georgia Buggies, etc., and provisions which will be taken related to these activities.
G. Submit a Placement Plan that includes hot and cold weather provisions, methods to achieve Saturated Surface Dry (if applicable) or to apply bonding agent if specified, consolidation, finishing, and curing.

H. Quality Control Test Results: Submit copies of all quality control test results and inspection reports.

1.6 QUALITY ASSURANCE

A. Concrete Repair Contractor: Submit documentation demonstrating at least 5 years of experience with previous projects of similar size and complexity and whose work has resulted in construction with a record of successful in-service performance.

B. Foreman for the Concrete Repair Contractor: Submit a résumé for the foreman demonstrating experience with previous projects of similar size and complexity.

C. Prior to commencing any work, Concrete Repair Contractor shall meet with the ENGINEER to review all requirements and all proposed installation materials and methods.

D. Use adequate numbers of skilled workmen thoroughly trained and experienced in the necessary crafts and completely familiar with the specified requirements and methods needed for proper and timely performance of the work of this Section.

E. Testing and Inspecting Agency Qualifications: An independent agency, acceptable to the OWNER and ENGINEER, qualified according to ASTM C 1077 and ASTM E 329 to conduct the testing indicated as documented according to ASTM E 548. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.

F. Source Limitations: Obtain each type or class of repair material of the same brand from the same manufacturer’s plant, each aggregate from one source, and each admixture from the same manufacturer. Use all concrete admixtures including silica fume admixture from the same manufacturer.

G. Reference Publications: Comply with the following publications (editions current at the time of bidding) unless more stringent provisions are given by the Contract Documents. The CONTRACTOR shall have the appropriate publications on site.

1. ACI 301, Specification for Structural Concrete.
2. ACI 318, Building Code Requirements for Structural Concrete.
4. ACI 306R, Cold Weather Concreting.
5. ICRI Technical Guidelines Nos. 310.1R, 310.2R.

1.7 GUARANTEE

A. Unless more stringent requirements are given elsewhere in the Contract Documents the following shall be the minimum warranty period and requirements for the various elements associated with the concrete rehabilitation work.
warranties shall be for all aspects of the entire in-place system and shall apply to defects in both labor and material. The complete system shall be guaranteed jointly by both the CONTRACTOR and the material manufacturer, on a single document, beginning with the Date of Substantial Completion of the entire Project.
1. Concrete patching repairs – five year warranty period.
2. Epoxy injection – five year warranty period.
3. Urethane joint sealants – five year warranty period.
4. Any aspect of the work not covered by another specific warranty – two year warranty period.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Horizontal top surface concrete repair materials (for partial depth and full depth repairs) shall be prepackaged site mixed materials.
   1. Prepackaged, site mixed (rapid set) materials. Extend with clean washed 3/8” diameter pea gravel meeting, or exceeding, the manufacturer’s minimum requirements.
      a. Basis of design: SikaQuick 1000 by Sika Corporation.
   2. Partial depth vertical surface or overhead concrete repair material.
      a. Basis of design: SikaTop 123 Plus by Sika.
      b. Basis of design: SikaTop 111 Plus or SikaCrete 211 Plus by Sika Corporation for formed repairs.
   3. Bonding agent:
   4. Evaporation reducer.
      a. Basis of design: Sikafilm by Sika Corporation.
   5. Reinforcing steel: Deformed reinforcing bars, size as required, ASTM A615, 60 ksi yield.

B. Epoxy Injection Resin: Epoxy injection pressure shall not exceed 75 psi without the approval of the ENGINEER. The following injection products are approved for use on this Project. Neatly grind off all surface seals from the injected crack.
   1. Basis of design: Sikadur 35, Hi-Mod LV by Sika Corp.

C. Joint Sealant and Accessories: Joint sealant for concrete work shall be multi-component, traffic-grade polyurethane having a Shore A Hardness of 21-35. The sealant material shall be capable of a minimum compression or extension of 25% of the nominal joint width without adhesive or cohesive failure in a properly prepared, primed and sealed joint. Unless indicated on the Drawings, the joint shall have a width to depth ratio of 2 to 1 with the use of a bond breaker or backer rod in the bottom of the joint. The backer rod material shall be closed-cell polyethylene in sizes appropriate for the depth and width of the joint.
PART 3 - EXECUTION

3.1 GENERAL

A. Refer to the Drawings for repair details.
   1. Areas requiring repairs that have elements (electrical conduit, lights or mechanical equipment, etc.), that must be temporarily removed (and then reinstalled), or temporarily supported, in order to execute the concrete repairs shall be temporarily removed or supported as needed.

B. Do not damage existing reinforcing steel. Do not strike existing reinforcing with chipping hammers during concrete removal. Repair damage caused by improper concrete removal techniques at no cost to the OWNER.

C. Cold-Weather Concrete Placement: Comply with ACI 306.1 and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
   1. When air temperature has fallen to, or is expected to fall to, below 40 deg. F., uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg. F. and not more than 80 deg. F. at point of placement. The concrete mixture, however, shall not have a temperature beyond the range permitted by ACI for the temperature differential between the mixed concrete and the surface of the material (existing concrete or formwork, etc.) against which it is to be placed. Heat existing material if necessary to make this requirement.
   2. Do not use frozen materials containing ice or snow. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.
   3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators, unless otherwise specified and approved in mix designs.

D. Hot-Weather Concrete Placement: Place concrete according to recommendations in ACI 305R and as follows, when hot-weather conditions exist.
   1. Cool ingredients before mixing to maintain temperature below 85 deg. F. at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided that water equivalent of ice is calculated as part of the total amount of mixing water. Using liquid to cool concrete is CONTRACTOR’s option.
   2. Cover steel reinforcement with water-soaked burlap so steel temperature will not exceed ambient air temperature at the time of concrete placement.

3.2 PROTECTION

A. Provide protections as necessary to prevent damage to existing building elements and to prevent spread of dust, debris, and other contaminants from work.

B. Provide shoring, bracing, or support to prevent uncontrolled movement, settlement, or collapse of structure or structure elements being worked on. Unless provided for elsewhere in the Contract Documents, the means and methods of
safely supporting structure or structure elements during work is responsibility of CONTRACTOR.

C. Horizontal areas being repaired shall not be subjected to any vehicular or any other heavy load for a 3 day period commencing with completing of repair, unless specifically permitted otherwise, on a case-by-case basis, by the ENGINEER. Coordinate with OWNER.

D. Existing Electrical, Plumbing, and Mechanical Services:
   1. Protect all electrical conduits, boxes, wiring, and fixtures from damage. Safe removal of lighting fixtures and existing surface mounted electrical lines, when required, shall be the responsibility of the Contractor. All electrical lines shall be reattached to the structure after completion of the repairs.
   2. Take reasonable precautions to avoid damaging embedded electrical conduits. Reasonable precautions shall include, but are not limited to, reviewing existing documentation and connected services in combination with nondestructive testing to determine the layout of the conduit. Demolition equipment shall be selected to minimize damage to conduit. Damage to embedded conduits as a result of Contractor negligence shall be repaired by the Contractor at no cost to the Owner.
   3. Protect mechanical ductwork from the intake of dust particles and odor.
   4. Protect plumbing, mechanical equipment, and ductwork from damage. Safe removal of plumbing, mechanical equipment, and ductwork, when required, shall be the responsibility of the Contractor. All plumbing, mechanical equipment, and ductwork shall be reattached to the structure after completion of the repairs.
   5. Maintain electrical, plumbing, and mechanical services in continuous operation except as approved by the Owner.

E. Precautions: Protect pedestrians; motor vehicles; mechanical, electrical, and plumbing equipment; surrounding construction; project site; landscaping; and surrounding buildings from damage or injury resulting from concrete rehabilitation Work.
   1. Neutralize and collect alkaline and acid wastes for proper disposal off-site in accordance with Local, State, and Federal regulations.
   2. Dispose of runoff from wet operations in accordance with all local ordinances and in a manner that prevents soil erosion, undermining of paving and foundations, damage to landscaping, and water penetration into building interiors.
   3. Comply with local noise ordinances during demolition operations.
   4. Protect all new repair Work from vibration, dust, and any deleterious environmental effects during the Work. Provide adequate cure time for concrete repairs to allow for compressive and bond strength gain prior to performing demolition adjacent to the repairs.
3.3 EXAMINATION

A. Notify the Owner at least 24 hours in advance of times when areas of deteriorated concrete will be located.

B. Locate areas of delamination using hammer sounding and/or chain-drag sounding in accordance with ASTM D4580, mark boundaries, and arrange for the Design Professional to inspect and approve the layout geometry. Layout geometry shall be performed in accordance with ICRI. 310.1R.

3.4 PREPARATION AND BONDING

A. Partial-depth Concrete Removal: Removal of deteriorated concrete, surface preparation, and provisions for reinforcement in areas to be repaired shall be conducted in accordance with ICRI 310.2R. The surface of the repair area shall be roughened to a minimum surface profile of CSP 7, as described in ICRI 310.2.R. In addition, the following criteria shall be met within the repair locations:

1. Repair configurations should be kept as simple as possible and shall preferably have square corners.

2. The aspect ratio of the repair area for slabs shall be as square as possible, not exceeding 1.25:1 to 1.5:1. Odd shapes shall be avoided. If they cannot be avoided, re-entrant corners shall be mitered or reinforced to limit cracking at these locations.

3. Remove concrete using power equipment such as impact breakers.

4. Generally the best way to define the depth of the repair is to detail the existing conditions and the depth of repair on the drawings. In that case, the following paragraphs defining the depth of repair can be deleted or made more generic.

5. Remove all loose and deteriorated concrete by breaking up and dislodging concrete to a minimum depth of 3.5 in. Extend the repair to beyond the corrosion on the reinforcing bars. Where half or more of the perimeter of reinforcing bar is exposed, bond between the reinforcing bar and surrounding concrete is broken, or the reinforcing bar is corroded, remove concrete from the entire perimeter of the bar to provide at least 0.75 in. clearance between exposed reinforcing steel and surrounding concrete or 0.25 in. larger than the coarse aggregate in the repair material, whichever is greater. Reinforcing bars in both directions shall have the required clearance.

6. Test areas where concrete has been removed by tapping with a mason’s hammer and remove additional concrete until unsound concrete is completely removed.

B. Full-Depth Concrete Removal: Procedures described previously in the paragraphs for partial-depth removal shall be followed except that the depth of removal shall extend through the entire thickness of the concrete section. Saw cuts and chipped edges shall be provided at the perimeter of the repair. In the case of slabs, the saw cuts and chipped edges shall be provided at both the top and at the underside. Special care must be taken to provide shoring around the perimeter of the full-
depth removal area in accordance with the approved shoring plan. Precautions regarding falling debris must be taken to prevent damage to structures or other property below the removal area.

C. Concrete Cavity Surface Preparation:
   1. Saw-cut the perimeter of areas indicated for removal and beyond the corrosion on the reinforcement to a depth of approximately 0.5 in. All edges shall be straight. Care must be taken to avoid cutting reinforcing bars, including the adjustment of the 0.5 in. saw cut in areas with less than 0.5 in. concrete cover. Make cuts perpendicular to concrete surfaces, or slightly undercut, and no deeper than the existing cover over reinforcement. Provide chipped vertical edges for the full depth of the repair. Roughen saw-cut edges.
   2. ACI 546R states that “in most cases in which concrete has been removed from a structure by primary means, such as impact methods, the concrete left in place should be prepared by a secondary method, such as abrasive blasting or high-pressure water jetting, to remove any remaining damaged and microcracked surfaced material.” Water blasting for concrete surface preparation should be performed with pressures of 5000 psi (34.5 MPa) to 10,000 psi (69 MPa). The pressure required to remove the microcracked surface material should be verified with tensile bond testing of the prepared surface.
   3. Remove bruised concrete substrate weakened by microcracking by abrasive blasting or high-pressure water blasting with or without abrasive. When water blasting, provide 5000 psi water pressure or higher if required to satisfy the tensile bond requirements. Keep nozzle not less than 6 in. and no more than 12 in. away from the surface.

D. Reinforcing Bar Preparation: Remove concrete fragments, corrosion product, mill scale, and other contaminants from reinforcing bars by commercial blast cleaning in accordance with SSPC-SP 6 until a bare metal finish has been achieved on the reinforcing bars.
   1. The specification assumes that under most circumstances the loss of up to 20% of the cross-sectional area of an isolated reinforcing bar will not significantly affect the overall strength of the structure. The Design Professional must determine the level of loss that can be permitted through an analysis. The Design Professional and the Contractor must be aware that this much loss on several bars in a critical moment region could be critical.
   2. The Design Professional should also be aware that corrosion sufficient to reduce or eliminate deformations on reinforcing bars will influence effective development and lap lengths. The extent of loss observed in the field must be closely monitored to verify the structure has the strength required by the building code. This limitation may need to be modified in this specification where a small loss is critical. An alternative to specifying the section loss that may be easier to quantity in the field would be to
define the loss in terms of the minimum acceptable bar diameter at corrosion sites.

3. The drawings should detail the length of reinforcing laps, weld sizes, and mechanical splices at locations where splices are anticipated during the design. Embedment depths should also be provided where the development of dowelled bars is required. Welding rods and mechanical splices can also be included in this specification. Welding can cause reinforcing steel to become brittle. Prior to welding, a welding procedure should be developed and samples of the reinforcement welded in accordance with the procedure should be tested for strength and ductility. Where permitted, preheating of the steel may be required. The welding should be monitored by the Design Professional or representative.

4. Where section loss of reinforcing bars is more than 15% of the cross-sectional area, splice replacement bars to existing bars as directed by the Design Professional. Remove additional concrete as necessary to provide at least a 0.75 in. clearance beyond existing and replacement or supplemental bars. Splice replacement bars to existing bars according to ACI 301 by lapping, welding, or using noncorrosive mechanical couplings. Welding, when approved by the Design Professional, shall be in accordance with AWS D1.4/D1.4M.

5. At areas around the repair perimeters where the development length cannot be achieved within the repair, drill into sound concrete as shown on the drawings or directed by the Design Professional to provide the required bar development and splice length, or remove additional concrete to allow for the splice. Reinforcement shall be bonded to the existing concrete with the dowel bonding material in accordance with the approved manufacturer’s recommendations.
   a. An alternative to bar repair is bar replacement. In conditions where the existing bar can easily be replaced, this alternative may be more cost-effective. Slabs where corrosion requires the removal of the concrete for the full length of the top steel in a slab is an example where this may be a practical alternative.
   b. Replace existing reinforcing bars where shown or directed by the Design Professional.
   c. Provide support chairs, slab spacers, and holding bars properly spaced and with sufficient strength to carry loads of reinforcement and deposited concrete without collapsing or allowing bars to sag. All accessories used at exposed concrete must have plastic tips capable of resisting concrete stains.
   d. The Design Professional should document the existing reinforcement on the repair drawings using the original drawings and observations of the existing reinforcement during the site investigations as required to properly show the reinforcement repairs.
e. Place reinforcing bars accurately and tie firmly in place. Replace or supplement reinforcing bars in accordance with the size and spacing noted on the repair drawings.

f. The Design Professional should show the concrete cover required for the reinforcement on the repair drawings. ACI 301 and ACI 318 define the requirements for cover.

g. Provide the minimum concrete cover as specified on the repair drawings. In areas where the minimum concrete cover for outer mat reinforcement cannot be achieved without mounding of the repair concrete, the outer mat reinforcing bars are permitted to be bent, if practical, to achieve the required cover. Alternately, the Contractor is permitted, with the Design Professional’s acceptance, to extend the limits of concrete removal to expose the entire bar to allow for lowering of the bars.

E. Protect prepared surfaces from the elements until ready to place repair materials.

F. Cleaning:
1. Remove bond-inhibiting materials (dirt, concrete slurry, loosely bonded aggregates, etc.) by abrasive blasting or low-pressure water blasting with or without abrasive. When water blasting, provide 3000 psi or greater water pressure. Keep nozzle not less than 6 in. and no more than 12 in. away from the surface to be cleaned.

2. Confine, collect, and dispose of broken concrete, sandblast grit, dust, debris, removed reinforcement, and other waste material resulting from removal operations and surface preparation in a safe and legal manner.

3. Check concrete surfaces after cleaning to ensure they are free of loose aggregate, microcracking, and additional delaminations.

4. Where abrasive blasting or high-pressure water blasting is infeasible, a less effective alternative is to use high-pressure air.

5. Thoroughly clean removal areas of loose concrete, dust, and debris using high-pressure, oil-free air.

G. Bonding: Select one or more of the requirements described in the following. Bond testing can be performed to verify that the procedures being used meet the requirements of the specifications. The bond strength should be specified if testing is required. An alternative to prescribing the procedures required to achieve the bond is to set a minimum required bond strength and require the Contractor to develop and test the procedure that will be used.

1. Just prior to the installation of the bonding agent, thoroughly clean the repair area with oil-free compressed air. Install the bonding agent in accordance with the manufacturer’s recommendations.
3.5 FINISHING AND CURING

A. Finish concrete to match existing conditions.

B. Continuously wet cure with wet burlap and polyethylene, wet burlene, or by soaker hoses covered by polyethylene after proper finishing. Check curing material at least daily throughout the entire curing period and re-dampen material or modify the curing technique to ensure a continuously wet cure. Unless more stringent requirements are given elsewhere in the Contract Documents, or by the prepackaged repair material manufacturer, or except as stated in 3.3 D., all concrete shall be continuously wet cured for a minimum of three full days (72 hours). At vertical surface, or soffit, repairs curing material shall be held in contact with concrete as required.

C. Protect newly applied material from frost.

3.6 SAFETY

A. All Work shall be performed in accordance with the applicable provincial, local, state, and federal requirements for safety and the recommendations of ICRI 120.1.

3.7 FIELD QUALITY CONTROL

A. Site testing is not required for approved, prepackaged, site mixed concrete provided that the manufacturer’s technically competent representative is present for mixing, placing and curing of the first instance of significant use. The ENGINEER may require compressive strength, and other, testing of material from this first significant use. If required, such testing shall be arranged and coordinated by the CONTRACTOR and paid for by the OWNER.

B. Engage an INSPECTING AGENCY to perform quality control inspections. Inspections as a minimum shall include the following:
   1. Verification that damaged concrete has been completely removed.
   2. Verification that adequate clearance to exposed reinforcing has been provided.
   3. Verification that the concrete substrate had been cleaned and prepared to receive the new patch material.
   4. Verification that the exposed reinforcing has been adequately cleaned and that it has been coated with bonding material.
   5. Review of curing procedures and maintenance of curing temperatures.

C. Testing Agency: Engage a qualified TESTING AGENCY to perform the following tests:
   1. Substrate Testing:
      a. Perform testing and the evaluation of the results in accordance with ASTM C1583 and ICRI 210.3R.
      b. Prior to making repairs, conduct one set of a minimum of three pull-off tests to determine the condition of the substrate at the level of the proposed repairs in each repair type and for each surface preparation procedure. One set of a minimum of three pull-off tests
shall also be conducted on a similar nearby undamaged existing surface for comparison to the strength at the prepared substrate.

c. Perform one set of three in-situ tensile pull-off tests on prepared substrates for each 1000 ft² (93 m²) of partial-depth repair performed.

2. Bond Testing:
   a. Perform testing and the evaluation of the results in accordance with ASTM C1583 and ICRI 210.3R.
   b. Prior to making repairs, conduct one set of a minimum of three pull-off tests to verify the bond between the repair material and the existing concrete for each repair material and each surface preparation procedure in order to establish baseline acceptance criteria. Perform one set of three in-situ tensile pull-off tests on completed repairs to evaluate the bond for each 1000 ft² (93 m²) of partial-depth repair.

D. If the OWNER or the ENGINEER suspect that concrete materials used, or the repair techniques performed, are out of compliance with the Contract Documents, they may direct that the CONTRACTOR arrange for additional testing. If this testing confirms repairs that are not in compliance then the CONTRACTOR shall pay the costs of the testing as well as the costs to repair, or remove and replace, the defective material or condition, as determined by OWNER/ENGINEER. If the testing shows the material or condition in question to be in conformance with the Contract Documents then the OWNER will pay for the testing.

END OF SECTION 030130.71
SECTION 031000 - CONCRETE FORMING AND ACCESSORIES

PART 1 - GENERAL

1.1 SECTION INCLUDES
   A. Formwork for cast-in-place concrete, with shoring, bracing and anchorage.
   B. Form accessories.
   C. Form stripping.

1.2 MEASUREMENT AND PAYMENT
   A. See Section 030130.71

1.3 REFERENCE STANDARDS
   A. ACI 117 – Standard Specifications for Tolerances for Concrete Construction and Materials; American Concrete Institute.
   B. ACI 301 – Specifications for Structural Concrete for Buildings; American Concrete Institute.
   C. ACI 318 – Building Code Requirements for Structural Concrete and Commentary; American Concrete Institute.
   D. ACI 347 – Guide to Formwork for Concrete; American Concrete Institute.

1.4 SUBMITTALS
   A. See Section 013000 – Administrative Requirements, for submittal procedures.
   B. Product Data: Provide data on void form materials.
   C. Shop Drawings: Indicate pertinent dimensions, materials, bracing and arrangement of joints and ties.
      1. Prepared by or under the supervision of a qualified professional engineer detailing fabrication, assembly, and support of formwork. Shop drawings shall be signed and sealed by an engineer registered in the local jurisdiction.
      2. Indicate proposed schedule and sequence of stripping formwork, shoring removal, and installing and removing reshoring.
      3. Indicate location of all slab joint types.

1.5 QUALITY ASSURANCE
   A. Perform work of this section in accordance with ACI 347, ACI 301, and ACI 318.
      1. Maintain one copy of standards on project site.
PART 2 - PRODUCTS

2.1 FORMWORK – GENERAL
A. Provide concrete forms, accessories, shoring and bracing as required to accomplish cast-in-place concrete work.
B. Design and construct to provide resultant concrete that conforms to design with respect to shape, lines, and dimensions.
C. Comply with applicable State and local codes with respect to design, fabrication, erection, and removal of formwork.
D. Comply with relevant portions of ACI 347, ACI 301 and ACI 318.

2.2 WOOD FORM MATERIALS
A. Form Materials: At the discretion of the Contractor.

2.3 PREFABRICATED FORMS
A. Preformed Steel Forms: Minimum 16 gage matched, tight fitting, stiffened to support weight of concrete without deflection detrimental to tolerances and appearance of finished surfaces.
B. Glass Fiber Fabric Reinforced Plastic Forms: Matched, tight fitting, stiffened to support weight of concrete without deflection detrimental to tolerances and appearance of finished surfaces.
C. Void Forms: Moisture resistant treated paper faces, biodegradable, structurally sufficient to support weight of wet concrete mix until initial set; 2 inches thick.

2.4 FORMWORK ACCESSORIES
A. Form Ties: Snap-off type, galvanized metal, fixed length, cone type, with waterproofing washer, 1 inch back break dimension, free of defects that could leave holes larger than 1 inch in concrete surface.
B. Form Release Agent: Colorless mineral oil that will not stain concrete, absorb moisture, impair natural bonding of concrete finish coatings, or affect color characteristics of concrete finish coatings.
C. Corners: Chamfered, rigid plastic or wood strip type, ¾ x ¾ inch size, maximum possible lengths.
D. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Sized as required, of sufficient strength and character to maintain formwork in place while placing concrete.
E. Waterstops: Preformed mineral colloid strips, ⅛ inch thick, moisture expanding.
PART 3 - EXECUTION

3.1 EXAMINATION
A. Verify lines, levels and centers before proceeding with formwork. Ensure that dimensions agree with drawings.

3.2 ERECTION – FORMWORK
A. Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 301.
B. Provide bracing to ensure stability of formwork. Shore or strengthen formwork subject to overstressing by construction loads.
C. Provide chamfer strips on external corners of beams, joists, and columns.
D. Install void forms in accordance with manufacturer’s recommendations. Protect forms from moisture or crushing.
E. Coordinate this section with other sections of work that require attachment of components to formwork.
F. If formwork is placed after reinforcement, resulting in insufficient concrete cover over reinforcement, request instructions from Architect before proceeding.

3.3 APPLICATION – FORM RELEASE AGENT
A. Apply form release agent on formwork in accordance with manufacturer’s recommendations.
B. Apply prior to placement of reinforcing steel, anchoring devices, and embedded items.
C. Do not apply release agent where concrete surfaces will receive special finishes or applied coverings that are affected by agent. Soak inside surfaces of untreated forms with clean water. Keep surfaces coated prior to placement of concrete.

3.4 FORM CLEANING
A. Clean forms as erection proceeds, to remove foreign matter within forms.
B. Clean formed cavities of debris prior to placing concrete.
   1. Flush with water or use compressed air to remove remaining foreign matter. Ensure that water and debris drain to exterior through clean-out ports.
   2. During cold weather, remove ice and snow from within forms. Do not use deicing salts. Do not use water to clean out forms, unless formwork and concrete construction proceed within heated enclosure. Use compressed air or other means to remove foreign matter.
3.5 FORMWORK TOLERANCES
   A. Construct formwork to maintain tolerances required by ACI 117, unless more
      stringent tolerances are required within the contract documents.

3.6 FIELD QUALITY CONTROL
   A. Inspect erected formwork, shoring and bracing to ensure that work is in
      accordance with formwork design, and to verify that supports, fastenings, wedges,
      ties, and items are secure.
   B. Do not reuse wood formwork more than 3 times for concrete surfaces to be
      exposed to view. Do not patch formwork.

3.7 FORM REMOVAL
   A. Do not remove forms or bracing until concrete has gained sufficient strength to
      carry its own weight and imposed loads.
   B. Loosen forms carefully. Do not wedge pry bars, hammers, or tools against
      finished concrete surfaces scheduled for exposure to view.
   C. Store removed forms to prevent damage to form materials or to fresh concrete.
      Discard damaged forms.

END OF SECTION 031000
SECTION 032000 - CONCRETE REINFORCING

PART 1 - GENERAL

1.1 SECTION INCLUDES
   A. Reinforcing steel for concrete repairs.
   B. Supports and accessories for steel reinforcement.

1.2 MEASUREMENT AND PAYMENT
   A. See Section 030130.71

1.3 REFERENCE STANDARDS
   A. ACI 301 – Specifications for Structural Concrete for Buildings; American Concrete Institute.
   B. ACI 318 – Building Code Requirements for Structural Concrete and Commentary; American Concrete Institute.
   C. ACI SP-66 – ACI Detailing Manual; American Concrete Institute.
   E. ASTM A 615/A 615M – Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
   F. CRSI (DA4) – Manual of Standard Practice; Concrete Reinforcing Steel Institute.
   G. CRSI (P1) – Placing Reinforcing Bars; Concrete Reinforcing Steel Institute.

1.4 SUBMITTALS
   A. See Section 013000: Administrative Requirements, for submittal procedures.
   B. Shop Drawings: Comply with requirements of ACI SP-66. Include bar schedules, shapes of bent bars, spacing of bars, and location of splices.
   C. Manufacturer’s Certificate: Certify that reinforcing steel and accessories supplied for this project meet or exceed specified requirements.
   D. Reports: Submit certified copies of mill test report of reinforcement materials analysis.

1.5 QUALITY ASSURANCE
   A. Perform work of this section in accordance with CRSI (DA4), CRSI (P1), ACI 301, ACI SP-66, and ACI 318.
      1. Maintain one copy of each document on the project site.
PART 2 - PRODUCTS

2.1 REINFORCEMENT

A. Reinforcing Steel: ASTM A 615, Grade 60.
   1. Deformed billet-steel bars.
   2. Unfinished.

B. Steel Welded Wire Reinforcement: ASTM A 185, plain type.
   1. Flat sheets.

C. Reinforcement Accessories:
   1. Tie Wire: Annealed, minimum 16 gage.
   2. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for adequate support of reinforcement during concrete placement.
   3. Provide stainless steel components for placement within 1½ inches of weathering surfaces.

2.2 FABRICATION

A. Fabricate concrete reinforcing in accordance with CRSI (DA4) – Manual of Standard Practice.

B. Welding of reinforcement is not permitted.

C. Locate reinforcing splices not indicated on drawings at point of minimum stress.
   1. Review location of splices with the Engineer.

PART 3 - EXECUTION

3.1 PLACEMENT

A. Place, support and secure reinforcement against displacement before and during concrete placement. Do not deviate from required position.

B. Clean reinforcement of loose rust, mill scale, earth, ice and other foreign materials that would reduce bond to concrete.

C. Conform to structural drawings for concrete cover over reinforcement.

3.2 FIELD QUALITY CONTROL

A. An independent inspection agency, as specified in Section 014000, will inspect installed reinforcement for conformance to contract documents before placing concrete. Inspection services shall conform to the Statement of Special Inspections noted in the structural drawings.

END OF SECTION 032000
SECTION 071360 - DECK COATING SYSTEM

PART 1 - GENERAL

1.1 SUMMARY
A. This specification describes the application of an overlay system on parking garage decks for the purpose of waterproofing the decks and providing a traffic resistant wearing surface. This work shall consist of furnishing and placing on the existing concrete parking deck, in the locations of new concrete repairs as indicated on the construction drawings, an overlay system comprised of a two-component polyurethane resin system, followed by the application of a two component epoxy resin overlay with broadcast aggregate for the purpose of improving skid resistance and sealing the concrete surface. The Contractor shall furnish all materials, labor, tools, and equipment to apply the waterproof, traffic resistant overlay to deck surfaces as indicated on project plans.

1.2 RELATED DOCUMENTS
A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.3 REFERENCES
A. Manufacturer’s Material Safety Data Sheets
B. Manufacturer’s product technical data sheets
D. ASTM D 4541-93, "Pull-Off Strength of Coatings Using Portable Adhesion Testers"
E. ASTM D 4259-88, "Standard Practice for Abrading Concrete"

1.4 SUBMITTALS
A. Prior to the purchase or installation of any of the overlay system the following submittals shall be made for review and approval:
   1. Product Data: For coating system specified. Include product manufacturer’s literature, manufacturer’s installation instructions and the Contractor’s installation plan (including surface preparation requirements).
   2. Material List: An inclusive list of required coating materials. Indicate each material and cross-reference the specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
   3. Manufacturer's Information: Technical information including label analysis and instructions for handling, storing, and applying each coating material.
B. Samples for Initial Selection: For each type of finish-coat material indicated.
C. Samples for Verification: For each color and material to be applied, with texture to simulate actual conditions, on representative Samples of actual substrate.
1. Provide stepped Samples, defining each separate coat, including block fillers and primers. Use representative colors when preparing Samples for review. Resubmit until required sheen, color, and texture are achieved.

2. Provide a list of materials and applications for each coat of each Sample. Label each Sample for location and application.

D. Qualification Data: For Contractor/Applicator.

1.5 QUALITY ASSURANCE

A. Applicator Qualifications: A firm or individual experienced in applying deck coating systems similar in material and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.

B. Source Limitations: Contractor shall coordinate and confirm the compatibility of deck coating system with crack fillers, block fillers, primers, and other undercoat materials used on the parking deck as part of this project.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label, and the following information:
   1. Product name or title of material.
   2. Manufacturer's stock number and date of manufacture.
   3. Contents by volume, for pigment and vehicle constituents.
   4. Thinning instructions (if permitted).
   5. Application instructions.
   6. Color name and number.
   7. Handling instructions and precautions.
   8. VOC content.

B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F. Maintain storage containers in a clean condition, free of foreign materials and residue.
   1. Protect deck coating system materials from freezing. Keep storage area neat and orderly. Remove oily rags and waste daily.

1.7 PROJECT CONDITIONS

A. Apply coatings only when temperature of surfaces to be coated and surrounding air temperatures are between 50 and 90 deg F, unless otherwise permitted by manufacturer's written instructions. Use a surface thermometer to monitor, as necessary, the temperature of substrates to be patched and overlayed.

B. Do not apply coatings in snow, rain, fog, or mist; when relative humidity exceeds 75 percent; or at temperatures less than 5 deg F above the dew point; or to damp or wet surfaces.
   1. Allow wet surfaces to dry thoroughly and attain temperature and conditions specified before starting or continuing coating operation.

C. Mask off adjoining surfaces to prevent damage to any surfaces outside work area.

D. Protect newly overlayed surfaces during cure from traffic, damage and contamination.

1.8 WARRANTY
A. Deck Coating System Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace coatings that fail within specified warranty period. Failures include, but are not limited to, water penetration through the coating.

B. Warranty Period for Deck Coating System: Five years from date of Substantial Completion.

1.9 EXTRA MATERIALS

A. Furnish extra elastomeric coating materials from same production run as materials applied and in quantities described below. Package materials in unopened, factory-sealed containers for storage and identify with labels describing contents. Deliver extra materials to the Owner.

B. Quantity: Furnish Owner with 2 gal. of each color and finish of deck coating system materials applied.

PART 2 - PRODUCTS

2.1 MANUFACTURERS AND PRODUCTS

A. Acceptable Manufacturers: Deck coating system shall be the Flexdeck System manufactured by The Euclid Chemical Company. All materials shall be sampled and tested for conformance to specifications prior to their incorporation into the finished work.

1. Polyurethane Resin System: The polyurethane resin system will be FLEXDECK PRIMER, and FLEXDECK MEMBRANE, as manufactured by The Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110, 1-800-321-7628. It shall be in strict accordance with the following requirements:
   a. Properties of the membrane polyurethane system:
      1) Mixing Ratio (A:B by volume): Pre-measured, proportioned
      2) Pot Life (AASHTO T-237): 20-30 minutes
      3) Mixed Viscosity, Poises: 40-80
      4) Mixed solids % by weight, min.: 98
      5) Tack Free Time, hrs.: 3-5
      6) Tensile Properties (ASTM D-412) at 7 days:
         7) Tensile Strength: 1,000 - 1,200 psi
         8) Elongation at Break: 400-500%
      9) Tear Strength (ASTM D-1004), min: 100-120 pli

2. Epoxy Resin System: The epoxy resin system will be FLEXDECK WEAR COAT and FLEXDECK TIE COAT, as manufactured by The Euclid Chemical Company, 19218 Redwood Road, Cleveland, OH 44110, 1-800-321-7628, and shall be a two-component, 100% solids, low-modulus, flexible, high-elongation, moisture-insensitive system. It shall be in strict accordance with the following requirements:
   a. Properties of the mixed epoxy resin:
      1) Pot Life (AASHTO T-237): 15-20 minutes
      2) Initial Cure: 3-5 hours
      3) Mixed Viscosity, Poises, Spindle 2,Speed 10: 10-20

   b. Properties of the cured epoxy resin:
      1) Compressive Properties (ASTM D-695):
      2) Compressive Strength at 7 days: 6,000 psi
3) Compressive Modulus at 7 days: 130,000 psi max.
4) Compressive Properties (ASTM C-109):
5) Compressive Strength at 4 hours: 1,400 psi
6) Compressive Strength at 7 days: 7,000 psi
7) Tensile Properties (ASTM D-638) at 7 days: tensile Strength = 2,500 psi and elongation at Break = 45%
8) Tensile Properties (ASTM C-307) at 7 days: Tensile Strength = 1,250 psi
9) Flexural Properties (ASTM C-580) at 7 days: Flexural Strength (Modulus of Rupture) = 3,600 psi
10) Hardness, Shore D, (ASTM D-2240) = 65 min.
11) Water Absorption, 24 hr. %, (ASTM D570): <0.5
12) Thermal Compatibility, (ASTM C-884): Passes
13) Effective Shrinkage, (ASTM C-883): Passes
14) Adhesion to Concrete, (ACI Method 503R-30): Concrete Failure

Note: Tests above were performed with material and curing conditions at 75±2F and 45-55% relative humidity, unless otherwise stated.

Properties of the aggregate: The aggregate shall be Tamms Basalt #9 or Flint Rock #9 aggregate:

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The aggregates shall be packaged such that they arrive at the job-site and are maintained in a moisture-free condition for application in the overlay system.

2.2 CRACK FILLERS

A. Crack Fillers: Factory-formulated acrylic emulsion crack fillers compatible with substrate and finish-coat materials indicated.

1. Crack Filler for Cracks up to 1/16 Inch:
   a. ICI Dulux Paint; Decra-Flex Smooth Brush Grade Elastomeric Patching Compound.
   b. Modac; Acra Lastic Brush Grade 115-004.
   c. Pittsburgh Paints; Buttering Grade Vinyl Sealant 236-2414.
   d. Sonneborn; Hydrocide 750 Brush Grade or Knife Grade Patching Compound.
   e. Approved Equal

2. Crack Filler for Cracks More Than 1/16 Inch:
   a. ICI Dulux Paint; Decra-Flex Smooth Knife Grade Elastomeric Patching Compound.
   b. Modac; Acra Lastic Knife Grade 115-002.
   c. Pittsburgh Paints; Regular Grade Vinyl Sealant 236-2397.
PART 3 - EXECUTION

3.1 EXAMINATION
A. Examine substrates and conditions, with Applicator present, for compliance with requirements for coating application. Comply with procedures specified in PDCA P4.
   1. Proceed with coating application only after unsatisfactory conditions have been corrected and surfaces are thoroughly dry.
   2. Start of coating application will be construed as Applicator's acceptance of surface conditions.
B. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.
   1. Notify COTR about anticipated problems when using coatings specified over substrates primed by others.

3.2 PREPARATION
A. General: Remove hardware and hardware accessories, plates, machined surfaces, light fixtures, and similar items already installed that are not to be coated. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and coating.
   1. After completing coating operations, reinstall items removed, using workers skilled in trades involved.
B. Cleaning: Before applying coatings or other surface treatments, clean substrates of substances that could impair bond of coating systems. Remove oil and grease before cleaning.
   1. Schedule cleaning and coating application so dust and other contaminants from cleaning process will not fall on wet, newly coated surfaces.
C. Surface Preparation: Clean and prepare surfaces to be coated according to manufacturer's written instructions for particular substrate conditions and as specified.
   1. All concrete surfaces to receive the overlay system shall be thoroughly clean and free of all dirt, dust grease, oil, tar, rust stains, and other contaminants that might interfere with the proper adhesion of the system.
   2. All deteriorated concrete shall be patched as specified in other sections and allowed to cure for the specified time period.
   3. All cracks in the substrate are to be repaired as specified in other sections and allowed to cure for the specified time period.
   4. All concrete surfaces that are to receive the overlay system are to be steel shot-blasted using equipment capable of providing a clean surface with adequate profile.
   5. Abrasive blasting or scarifiers may be utilized in order to remove the top surface of the concrete and attain a clean concrete condition in areas where the steel shot blasting equipment cannot reach, such as the deck edges adjacent the perimeter walls, curbs, etc. Use abrasive/water blasting to remove any fractured concrete in areas where scarifiers or impact hammers were used.

DECK COATING SYSTEM
6. Acceptable alternate methods for the surface preparation of the concrete parking garage decks are scarification or abrasive blasting. If scarifiers or impact hammers are used, the surface should be abrasive/water blasted to remove fractured, weak concrete.

7. All dust and debris shall be thoroughly removed from all surfaces by use of clean, dry (trapped), air.

8. Once an area has been properly prepared, the contractor shall take all precautions necessary in order to prevent traffic exposure, or any contamination of the surfaces. Should the surfaces be opened to traffic and contaminated in any way, additional cleaning will be required.

9. Provide barrier coats over incompatible primers or remove and re-prime.

D. Acceptability of Surface Preparation: Acceptability of the surface preparation will be determined by the Engineer, and should include the use of a vertical axis pull bond test. Test to be performed in accordance to ACI 503R-30.

1. This test consists of bonding a 2 inch diameter sandblasted steel disk to the prepared substrate by using a fast setting epoxy, and pulling it from the substrate by applying a vertical force.

2. The number of tests to be completed will be determined by the Engineer.

3. Substrate preparation shall not be approved unless at least 90% of the bonded steel disk surface has retained substrate concrete exceeding 1/4 inches in depth, and the pull out strength value is at least 200 psi. The Contractor shall repair all bond test locations with polymer overlay in accordance with this specification.

3.3 APPLICATION OF THE OVERLAY SYSTEM

A. Application of the overlay shall not be allowed unless the ambient temperature is a minimum of 50 degrees F and rising, and the concrete deck temperature is at least 50 degrees F. Condition all materials at 75 degrees F. for least 24 hours prior to use. Additionally, application shall not begin until the concrete deck is dry.

B. Mixing of Components: Components A and B shall each be thoroughly stirred in its own container prior to mixing in order to disperse any settlement which may have occurred. Components A and B shall be proportioned in strict accordance with the instructions of the manufacturer and then thoroughly blended together. Mix thoroughly for 3 minutes min. with a jiffy paddle on a low-speed (400-600 rpm) drill. Make sure to scrape the sides and bottom of the mixing bucket while mixing. Do not whip or aerate while mixing. No diluent, thinner, or other foreign material shall be added to either the individual components or the mixed resins.

C. Application Methods: Application of the mixed materials to the concrete surface shall be squeegee, roller, or spray, or combinations thereof as approved by the Engineer following the trial application. The application method used shall apply the material smoothly, uniformly, and continuously. The resins shall not be allowed to puddle or accumulate in holes or depressions in the deck. The contractor shall provide suitable coverings, such as heavy-duty drop cloths and the like, to protect all exposed areas not to be overlayed, such as curbs, sidewalks, railings, parapets, joints, etc. Any damage or defacement resulting from this application shall be cleaned or repaired at the contractor's expense, to the satisfaction of the Engineer.

D. Applying the overlay
1. **Primer Coat:** The properly proportioned and mixed primer shall be applied to the deck evenly by brush, roller, or spray at the rate of 150-200 square feet per gallon. The primer must become tack free (typically in 4-6 hours at 75 degrees F and 50% Relative Humidity) before continuing with the placement of the FLEXDECK MEMBRANE.

2. **Membrane Coat:** The properly measured and mixed FLEXDECK MEMBRANE shall be evenly applied by brush, roller, or spray at the rate of 40-50 square feet per gallon to all concrete deck surfaces that are to receive the membrane system. The FLEXDECK MEMBRANE is to be applied in such a manner that it is continuous with no seams. Care must be taken that the placement of the MEMBRANE shall take place within the recommended cure time for the primer as specified on the manufacturer's product data sheet. The FLEXDECK MEMBRANE shall be allowed to cure to the point where it can sustain worker traffic, but no longer than 24 hours, before proceeding with the epoxy wear coats.

3. **Traffic Resistant Wear Coats**

3.4 **PARKING STALLS / LIGHT TRAFFIC AREAS:**

   A. The Flexdeck Tie Coat shall be applied to the Flexdeck Membrane at a rate of 100-150 sq. ft. per gallon. While the epoxy is still wet broadcast and backroll a clean, dry silica aggregate to obtain the desired non-slip finish.

3.5 **DRIVING LANES / MEDIUM TRAFFIC AREAS**

   A. Flexdeck Wear Coat shall be applied to the Flexdeck Membrane coat at the rate of 60-80 sq. ft. per gallon. While the epoxy is wet, the Basalt or Flint Rock aggregate shall be broadcast at the rate of 7-9 pounds per sq. yd. or until no wet spots are visible. In broadcasting, the aggregate shall be sprinkled or dropped vertically in such a manner so as not to violently disrupt the resin film. When this coat has cured sufficiently to sustain working traffic, any excess aggregate remaining shall be removed by sweeping.

   B. Flexdeck Tie Coat shall then be applied to the surface at a rate of 80-100 sq. ft. per gallon. No aggregate is broadcast into this coat.

3.6 **CURING**

   A. Allow the epoxy overlay wear course to cure sufficiently before subjecting it to loads or traffic of any nature that may damage the overlay. Cure time depends upon the ambient and deck temperatures. The field cure, if approved by the COTR, can be determined as follows: The overlay shall be considered cured to a firm, hard state when no movement of the overlay can be detected when pressure is applied with the ball of the foot to the overlay. The following cure schedule is provided as a guide; however, actual degree of cure and suitability for traffic shall be determined by the manufacturer, acceptable to the Engineer, on the actual epoxy concrete overlay:

<table>
<thead>
<tr>
<th>Degrees F</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
<td>10</td>
</tr>
<tr>
<td>60</td>
<td>8</td>
</tr>
<tr>
<td>75</td>
<td>5</td>
</tr>
<tr>
<td>85</td>
<td>4</td>
</tr>
</tbody>
</table>

3.7 **CLEANING**
A. Cleanup: At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.
   1. After completing coating work, clean glass and spattered surfaces. Remove spattered coatings by washing, scraping, or other methods, being careful not to scratch or damage adjacent finished surfaces. The uncured resins can be cleaned from tools with MEK or Xylene. Cured resin can only be removed mechanically.
   2. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.

3.8 PROTECTION

A. Protect work of other trades from damage whether being coated or not. Correct damage by cleaning, repairing, replacing, and recoating as approved by COTR. Leave in an undamaged condition.

B. Provide "Wet Paint" signs to protect newly coated finishes. Remove temporary protective wrappings provided by others to protect their work after completing coating operations.
   1. After construction activities of other trades are complete, touch up and restore damaged or defaced coated surfaces. Comply with procedures specified in PDCA P1.

END OF SECTION 010260
SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY
A. Section Includes:
   1. Silicone joint sealants.
   2. Polyurethane joint sealants.

1.2 MEASUREMENT AND PAYMENT
A. See Section 030130.71

1.3 PREINSTALLATION MEETINGS
A. Preinstallation Conference: Conduct conference at Project Site.

1.4 ACTION SUBMITTALS
A. Product Data: For each joint-sealant product.
B. Samples: For each kind and color of joint sealant required.

1.5 INFORMATIONAL SUBMITTALS
A. Product test reports.
B. Preconstruction laboratory test reports.
C. Preconstruction field-adhesion-test reports.
D. Field-adhesion-test reports.
E. Sample warranties.

1.6 QUALITY ASSURANCE
A. Testing Agency Qualifications: Qualified according to ASTM C1021 to conduct the testing indicated.
B. Installer Qualifications: An authorized representative who is trained and approved by manufacturer.

1.7 PRECONSTRUCTION TESTING
A. Preconstruction Laboratory Testing: Submit to joint-sealant manufacturers, for testing indicated below, samples of materials that will contact or affect joint sealants.
   1. Adhesion Testing: Use ASTM C794 to determine whether priming and other specific joint preparation techniques are required to obtain rapid, optimum adhesion of joint sealants to joint substrates.
   2. Compatibility Testing: Use ASTM C1087 to determine sealant compatibility when in contact with glazing and gasket materials.
B. Preconstruction Field-Adhesion Testing: Before installing sealants, field test their adhesion to Project joint substrates. Test joint sealants according to Method A, Field-
1.8 FIELD CONDITIONS
A. Do not proceed with installation of joint sealants under the following conditions:
   1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 degrees F.
   2. When joint substrates are wet.
   3. Where joint sealant widths are less than those allowed by joint-sealant manufacturer for applications intended.
   4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.9 WARRANTY
A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
   1. Warranty Period: Five years from date of Substantial Completion.
B. Special Manufacturer's Warranty: Manufacturer agrees to furnish joint sealants to repair or replace those joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.
   1. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 JOINT SEALANTS, GENERAL
A. Colors of Exposed Joint Sealants: As indicated by manufacturer's designations.

2.2 SILICONE JOINT SEALANTS
A. Silicone, S, NS, 25, T, NT: Single-component, nonsag, plus 25 percent and minus 25 percent movement capability, traffic- and nontraffic-use, neutral-curing silicone joint sealant; ASTM C920, Type S, Grade NS, Class 25, Uses T and NT.

2.3 POLYURETHANE JOINT SEALANTS
A. Polyurethane, S, NS, 25, T, NT: Single-component, nonsag, plus 25 percent and minus 25 percent movement capability, traffic- and nontraffic-use, polyurethane joint sealant; ASTM C920, Type S, Grade NS, Class 25, Uses T and NT.
B. Urethane, M, NS, 25, T, NT: Multicomponent, nonsag, plus 25 percent and minus 25 percent movement capability, traffic- and nontraffic-use, urethane joint sealant; ASTM C920, Type M, Grade NS, Class 25, Uses T and NT.

2.4 JOINT-SEALANT BACKING
A. Cylindrical Sealant Backings: ASTM C1330, Type C (closed-cell material with a surface skin), Type O (open-cell material), Type B (bicellular material with a surface skin) or any of the preceding types, as approved in writing by joint-sealant manufacturer for joint
application indicated, and of size and density to control sealant depth and otherwise contribute to producing optimum sealant performance.

B. Bond-Breaker Tape: Polyethylene tape or other plastic tape recommended by sealant manufacturer.

2.5 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials.

C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:
   1. Remove laitance and form-release agents from concrete.
   2. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion.

B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience.

C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces.

3.3 INSTALLATION OF JOINT SEALANTS

A. General: Comply with ASTM C1193 and joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.

B. Install sealant backings of kind indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

C. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.
D. Install sealants using proven techniques that comply with the following and at the same
time backings are installed:
1. Place sealants so they directly contact and fully wet joint substrates.
2. Completely fill recesses in each joint configuration.
3. Produce uniform, cross-sectional shapes and depths relative to joint widths that
allow optimum sealant movement capability.

E. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or
curing begins, tool sealants to form smooth, uniform beads of configuration indicated.
Use tooling agents that are approved in writing by sealant manufacturer and that do not
discolor sealants or adjacent surfaces.
1. Provide concave joint profile per Figure 8A in ASTM C1193 unless otherwise
indicated.

3.4 FIELD QUALITY CONTROL

A. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as follows:
1. Extent of Testing: Test completed and cured sealant joints as follows:
a. Perform one test for each 1000 feet of joint length thereafter or one test per each
floor per elevation.
2. Test Method: Test joint sealants according to Method A, Field-Applied Sealant
Joint Hand Pull Tab, in Appendix X1 in ASTM C1193 or Method A, Tail
Procedure, in ASTM C1521.

B. Evaluation of Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from
testing or noncompliance with other indicated requirements will be considered
satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to
comply with other requirements. Retest failed applications until test results prove sealants
comply with indicated requirements.

3.5 CLEANING

A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by
methods and with cleaning materials approved in writing by manufacturers of joint
sealants and of products in which joints occur.

3.6 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating
substances and from damage resulting from construction operations or other causes so
sealants are without deterioration or damage at time of Substantial Completion. If, despite
such protection, damage or deterioration occurs, cut out, remove, and repair damaged or
deteriorated joint sealants immediately so installations with repaired areas are
indistinguishable from original work.

END OF SECTION 079200
TOWSON UNIVERSITY
GLEN GARAGE REPAIRS

TU PROJECT NO. 19016

BOARD OF PUBLIC WORKS
LARRY J. HOGAN, GOVERNOR
PETER FRANCHOT, COMPTROLLER
NANCY K. KOPP, TREASURER
FIFTH FLOOR PLAN

GENERAL SHEET NOTES

1. DRAWING IS APPROXIMATE AND SHOULD BE REVIEWED AND CHECKED BY AN ARCHITECT.
2. MEASURE TO SHEET EDGE FOR EXACT CONSTRUCTION SIZE.
3. ALL SHEET DIMENSIONS ARE TO BE ELABORATED IN MATERIAL, DETAILS, AND CONSTRUCTION.
4. DRAWING IS APPROXIMATE.
5. MEASURE TO SHEET EDGE FOR EXACT CONSTRUCTION SIZE.

FIFTH FLOOR PLAN

1. DRAWING IS APPROXIMATE AND SHOULD BE REVIEWED AND CHECKED BY AN ARCHITECT.
2. MEASURE TO SHEET EDGE FOR EXACT CONSTRUCTION SIZE.
3. ALL SHEET DIMENSIONS ARE TO BE ELABORATED IN MATERIAL, DETAILS, AND CONSTRUCTION.
4. DRAWING IS APPROXIMATE.
5. MEASURE TO SHEET EDGE FOR EXACT CONSTRUCTION SIZE.
REPAIR PROCEDURES

1. Identify the spalls, spall removal, and prepare the area for repair.
2. Remove any loose material and debris to ensure the repair surface is clean.
3. Apply a compatible repair mortar to the damaged area according to the manufacturer's instructions.
4. Allow the repair mortar to cure as per the manufacturer's recommendations.
5. Follow the manufacturer's guidelines for curing to ensure proper bond and strength.
6. After the repair mortar has set, apply a sealer to the repaired area to protect it from moisture and pollutants.
7. Apply a finish coat as specified by the manufacturer to match the surrounding concrete.
8. Allow the finish coat to cure completely before using the repaired area.
9. Regularly inspect the repaired area for any signs of cracking or deterioration.

TYPICAL DETAIL

TYPICAL STAIR CRACK AND SPALL REPAIR DETAIL

TYPICAL DOUBLE-TEE UNDERSIDE SPALL REPAIR DETAIL

TYPICAL SPALL AT SLAB-ON-GROUND OR Topping SPALL REPAIR DETAIL
REPAIR PROCEDURES

PRECAST PANEL LIFT

POCKET REPAIR DETAIL

TYPICAL EXPANSION

JOINT REPAIR DETAIL

TYPICAL EPOXY RESIN

CRACK SEALANT DETAIL

TYPICAL SHEAR PLATE AND DOUBLE-TEE REPAIR DETAIL
TOWSON UNIVERSITY
TOWSON TOWN GARAGE REPAIRS

TU PROJECT NO. 19016

BOARD OF PUBLIC WORKS
LARRY J. HOGAN, GOVERNOR
PETER FRANCHOT, COMPTROLLER
NANCY K. KOPP, TREASURER
GENERAL AND CONCRETE REPAIR NOTES

1. Prior to beginning work, the Contractor shall be required to present the Project Manager and Engineer with a Submittal Package consisting of Composite Drawings and Written Statement for the Work, including but not limited to:
   - Composite Drawings
   - Written Statement

2. The Contractor shall be required to provide a Written Statement to the Project Manager and Engineer, which shall include:
   - Description of the Work
   - Materials
   - Methods of Performance

3. The Contractor shall be required to provide a Composite Drawing for each task to be performed, showing the proposed locations and extent of the Work.

4. The Contractor shall be required to provide a Composite Drawing for each task to be performed, showing the proposed locations and extent of the Work.

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10. The Contractor shall be required to provide a Composite Drawing for each task to be performed, showing the proposed locations and extent of the Work.

LIST OF DRAWINGS

- Cover Sheet
- General Concrete Repair Notes and List of Drawings
- Repair Procedures and Typical Details

GENERAL CONCRETE REPAIR NOTES

1. Prior to beginning work, the Contractor shall be required to present the Project Manager and Engineer with a Composite Drawing and a Written Statement for each task to be performed, including:
   - Description of the Work
   - Materials
   - Methods of Performance

2. The Contractor shall be required to provide a Composite Drawing for each task to be performed, showing the proposed locations and extent of the Work.

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**REPAIR PROCEDURE-RP#1**

1.) REFER TO C/S5-01.
2.) REMOVE SEALANT.
3.) REMOVE BACKER ROD.
4.) CLEAN SURFACE OF CONCRETE RECEIVING NEW SEALANT OF ALL DUST, OIL, AND OTHER BOND INHIBITING MATERIALS BY MECHANICAL MEANS.
5.) PRIME JOINT SURFACES. BASIS OF DESIGN IS SIKA PRIMER 429 BY SIKA.
6.) SEAL JOINT WITH TWO-COMPONENT, TRAFFIC GRADE ELASTOMERIC SEALANT. BASIS OF DESIGN IS SIKAFLEX-2C TG BY SIKA. PREPARATION AND APPLICATION SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATION.

**REPAIR PROCEDURE-RP#2**

1.) REFER TO C/S5-01.
2.) REMOVE EXISTING EXPANSION JOINT MATERIAL.
3.) SOUND ALL CONCRETE ADJACENT TO JOINT TO VERIFY IF CONCRETE IS FREE OF SPALLS/DELAMINATION. IF ADJACENT CONCRETE IS FOUND TO BE DETERIORATED, NOTIFY ENGINEER FOR DIRECTION.
4.) CLEAN SURFACE OF CONCRETE RECEIVING NEW SEALANT OF ALL DUST, OIL, AND OTHER BOND INHIBITING MATERIALS BY MECHANICAL MEANS.
5.) PRIME JOINT SURFACES. BASIS OF DESIGN IS SIKA PRIMER 429.
6.) INSTALL NEW ELASTOMERIC EXPANSION JOINT TO MATCH EXISTING CONSTRUCTION.

**REPAIR PROCEDURE-RP#3**

1.) REFER TO C/S5-01.
2.) REMOVE EXISTING CONCRETE FILL AT STAIR TREADS AND LANDINGS, METAL PAN TREADS AND RISERS, AND DECKING AT LANDINGS. EXISTING STEEL STRINGERS SHALL REMAIN.
3.) CLEAN EXISTING STEEL STRINGERS OF ANY REMAINING RUST AND DEBRIS. COAT STRINGERS WITH A ZINC-RICH PAINT.
4.) REPLACE TREADS AND LANDINGS TO MATCH EXISTING.

---

Whitman, Requardt & Associates, LLP
801 South Caroline Street, Baltimore, Maryland 21231
BID/PRICE PROPOSAL FORM

BIDDER’S NAME: ______________________________________________________________

PROJECT TITLE: Glen Parking Garage Restoration __________________________________

PROJECT NUMBER: TU-1956 _____________________________________________________

Failure to properly complete each blank may be cause for rejection of this proposal.

Having carefully examined the solicitation documents, including all addenda acknowledged on Exhibit K attached hereto, being collectively referred to as the Contract Documents, and having received clarification on all items of conflict or upon which any doubt arose, the undersigned proposes to furnish all labor, materials and equipment required by the said documents for the entire work, all in strict accordance with the Contract Documents, for the sum of:

TOTAL COST OF PROJECT

BASE BID (___________________________) ($___________)

Words Numbers

Add Alternate #1 (___________________________) ($___________)

(Add Alternate No. 1-Perform expansion joint replacement and control joint repairs specified on construction drawings titled Towson University Towsontown Garage repairs, dated March 1, 2019.)

If the undersigned is notified by the Procurement Officer/Representative of the acceptance of the bid within 90 days after the bid date, Contractor agrees to guarantee the completion of this work as specified in the Contract Documents.

Firm License Number Date Issued Place of Issuance
(If Applicable)

Minority Business Enterprises:

The undersigned certifies that the Bidder:

_____ IS NOT a Certified Minority Business Enterprise.

_____ IS a Minority Business Enterprise (MBE), certified by the Maryland Department of Transportation, and assigned the following certification number: ____________________________ (Certification Number)
The following Unit Prices are requested in Project Specifications Section 030130.71 Rehabilitation of Concrete Part 1.3.B:

<table>
<thead>
<tr>
<th>Number</th>
<th>Repair Type</th>
<th>Measurement</th>
<th>Unit Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1.</td>
<td>Partial-depth concrete slab repairs – top surface</td>
<td>per Square Foot</td>
<td>$</td>
</tr>
<tr>
<td>B2.</td>
<td>Full-depth concrete slab repairs</td>
<td>per Square Foot</td>
<td>$</td>
</tr>
<tr>
<td>B3.</td>
<td>Partial-depth concrete wall and column repairs – vertical surface</td>
<td>per Square Foot</td>
<td>$</td>
</tr>
<tr>
<td>B4.</td>
<td>Partial-depth concrete repairs – overhead surface</td>
<td>per Square Foot</td>
<td>$</td>
</tr>
<tr>
<td>B5.</td>
<td>Partial-depth concrete bean and tee web repairs – vertical surface</td>
<td>per Square Foot</td>
<td>$</td>
</tr>
<tr>
<td>B6.</td>
<td>Epoxy resin crack repair – top surface</td>
<td>per Linear Foot</td>
<td>$</td>
</tr>
<tr>
<td>B7.</td>
<td>Crack injection repair – vertical surface</td>
<td>per Linear Foot</td>
<td>$</td>
</tr>
<tr>
<td>B8.</td>
<td>Crack injection repair – overhead surface</td>
<td>per Linear Foot</td>
<td>$</td>
</tr>
<tr>
<td>B9.</td>
<td>Joint Sealant repair</td>
<td>per Linear Foot</td>
<td>$</td>
</tr>
<tr>
<td>B10.</td>
<td>Reinforcement</td>
<td>per Linear Foot</td>
<td>$</td>
</tr>
<tr>
<td>B11.</td>
<td>Rout and seal crack</td>
<td>per Linear Foot</td>
<td>$</td>
</tr>
</tbody>
</table>
The undersigned affirms, and it is a condition precedent to acceptance of this bid, that the bidder has not been a party to any agreement to bid a fixed or uniform price.

**INDIVIDUAL PRINCIPAL**

Firm Name: __________________________
Address: ____________________________

____________________________________

Phone/Fax No.: _______________________
E-mail Address: _______________________  
Federal Tax ID or Social Security No.
Witness: _____________________________  Signed: ___________________________

**CO-PARTNERSHIP PRINCIPAL**

Address: ____________________________

____________________________________

Phone/Fax No.: _______________________  
E-mail Address: _______________________

Federal Tax ID or Social Security No.

In the Presence of
Witness: _____________________________  By: ___________________________
Witness: _____________________________  By: ___________________________
Witness: _____________________________  By: ___________________________

**CORPORATE PRINCIPAL**

____________________________________ Name of Corporation
Address: ____________________________

____________________________________
Phone/Fax No.: _______________________
E-mail Address: _______________________

____________________________________ Federal Tax ID Number
By: _________________________________
Signature of Officer or Authorized Agent
(Affix Corporate Seal)

____________________________________
Printed Name

____________________________________
Title

Witness: _____________________________
EXHIBIT A-1
ENVIRONMENTAL HEALTH AND SAFETY REQUIREMENTS

The Contractor must contact the TU's Department of Environmental Health and Safety (EHS) (410-704-2949) immediately following any spill of a hazardous material in excess of one (1) quart.

1. Occupational Safety And Health Act (O.S.H.A.)
All materials, supplies, equipment, or services supplied as a result of this Contract shall comply with the applicable US and Maryland Occupational Safety and Health Act standards.

2. Hazard Communication Standard
The Contractor will be responsible for advising all of its employees of their rights under the University's Hazard Communication Program, or more commonly referred to as the Right To Know (RTK) Program. The University will supply the vendor with sufficient copies of its Employee Safety Program (ESP) booklet which outlines this program. Each and every Contractor who physically works on campus shall be required to sign a form acknowledging the receipt of the ESP booklet and their rights/responsibilities pursuant to this program. The University's Department of Environmental Health and Safety is responsible for administering the RTK program and will handle all information regarding this program. Failure to adhere to the requirements of the RTK Program may result in implementation of punitive action such as the cancellation of the contract(s).

Pursuant to the provisions of the RTK Program, the Contractor will be responsible for the following:

a. Submission to the Contract Services Office and EHS of a complete list of all chemicals or chemical products to be used on the University's property. This listing shall include the chemical name, common name, manufacturer's name, quantity and location (building and room number) for each product. This listing shall be given to EHS by no later than two (2) weeks prior to the start of any work under this contract. Changes, additions, or deletions to the complete campus chemical list must be submitted in writing five (5) working days prior to the actual change occurring. All proposed changes must be approved in writing by EHS prior to the actual use of the new product on campus.

b. Submission to the Contract Services Office and EHS of the manufacturer's Material Safety Data Sheet (MSDS) for all chemicals or chemical products to be used or in use at the University. These MSDS must be delivered, no later than two (2) weeks prior to the start of any work under this contract. There must be a MSDS for every product in use or present on the campus unless exempted in writing by EHS. MSDS's for any changes or additions to the complete campus chemical list must be submitted five (5) working days prior to the actual change occurring. All proposed changes must be approved in writing by EHS prior to the actual use of the new product on campus. The University, through EHS, reserves the right to order a change in the use, storage, or method of handling of any chemical/chemical product that it feels poses an unreasonable hazard to the University's community.

NOTE: In the absence of the original manufacturer's MSDS, EHS will accept a generic equivalent as long as a letter from the Contractor stating that the original is not available is attached.

c. The Contractor must warrant in writing to Towson University's Contract Administrator that all employees have been trained and will continue to be trained in the proper and safe handling, use and disposal of all chemicals/chemical products in use.

d. The Contractor agrees to obey and follow all local, state, and federal regulations regarding the storage, handling, use and disposal of all chemicals/chemical products. The Contractor agrees to properly dispose of all regulated waste in accordance with all applicable regulations and to make available to EHS all records necessary to support such activity.

3. Asbestos
The Contractor is responsible for training and equipping all personnel concerning work in asbestos environments as applicable. They must be trained as prescribed by COMAR 26.11.21. All new employees must be trained within 30 days after they are hired by the Contractor. This is to be accomplished at no additional cost to this contract or the University. An initial report on all employees as to their asbestos training will be presented to the Contract Administrator within the first 90 days of the Contract and updated on a monthly basis. Thereafter, failure to comply with this requirement would place the Contractor in default status.

4. Lead Paint
The Contractor is responsible for training and equipping all personnel concerning work in lead paint containing environments as applicable. Employees must be trained as required within 60 days of contract commencement and all new employees must be trained within 30 days after they are hired by the Contractor. This training will be provided by the Contractor at no additional cost to this contract or the University. An initial report on all employees as to their lead paint training will be presented to the Contract Administrator within the first 90 days of the contract and updated on a monthly basis. Thereafter, failure to comply with this requirement would place the Contractor in default status.

5. Fire Safety
The Contractor agrees to comply with and follow all local, state, federal and University regulations regarding fire safety. It is the Contractor's sole responsibility to become familiar with all of the applicable regulations and policies. Copies of the University's policies and procedures are available from EHS.

The Contractor will be responsible for the following:

a. To provide all of its employees with sufficient training to ensure that they are fully aware of all pertinent regulations and policies in effect regarding fire safety.

b. To ensure that all of its employees are aware of and react to the University's Emergency Procedures including, but not limited to, fire
d. All electrical equipment including extension cords should be disconnected at the completion of the work assigned. All electrical equipment must be approved by Underwriters Laboratory and maintained in good working order. Under no circumstances shall damaged electrical equipment be utilized on this campus.

e. SMOKING IS NOT ALLOWED IN ANY OF THE BUILDINGS. Any employee of the Contractor, who wishes to smoke during a designated break, must do so outside.

The Contractor is responsible for fully complying with TU Hot Works Permitting Program. A Hot Works Permit is required any time a Contractor is doing any work on campus involving an actual or potential source of ignition (e.g., arc or gas welding, torch cutting, brazing, open flame soldering, grinding, fired space heaters, etc.); or may potentially cause the activation of a building fire alarm system; or may cause building occupants to notify emergency response agencies about the smell of smoke, heat, etc.

Hot Works Permits are issued prior to the start of the work by EHS at 410-704-2949.

The Contractor assumes all responsibility for any work delays associated with noncompliance with the Hot Works Permit Program.

6. Bloodborne Pathogens

The Contractor will be responsible for providing the required training dealing with occupational exposure to bloodborne pathogens. Employees who have received this training may be required to perform services in areas where they may be at risk of exposure to blood or other potentially infectious materials. Some responsibilities will include collection of domestic trash in areas that generate special medical waste, regular cleaning in these areas and spill response for accidents that occur on campus that involve blood. Employees must be informed on the potential hazards present in these areas and the proper protective measures that can be taken to prevent exposure. EHS is available to provide more information concerning the areas on campus where personnel are at risk of exposure.

7. Confined Space Entry

The Contractor agrees to comply with all local, state and federal regulations pertaining to entering confined spaces. The Contractor is responsible for contacting the TU’s Contract Services Manager in the Department of Facilities Management for the location of all campus-confined spaces and for identifying any confined space hazards prior to entry into a confined space. The Contractor is responsible for ensuring his/her workers and Subcontractors are adequately trained in confined space entry procedures in accordance with OSHA 1910.146, Permit Required Confined Spaces for General Industry.

The Contractor will provide the Contract Administrator with a written copy of their Confined Space Entry Plan (CSEP) for review and approval at least 5 working days in advance of the planned entry. Prior to work commencements, the Contractor will also certify in writing that all of his/her workers and Subcontractors have been trained in accordance with OSHA 1910.146, Permit Required Confined Spaces for General Industry. This certification will list all employees working on campus by name and social security number.

If the Contractor's CSEP is approved, the Contractor may utilize his/her CSEP for entering into campus confined spaces. If disapproved, or if the Contractor does not have a written CSEP, the Contractor will comply with the University's CSEP. Until such time as the Contractor provides written certification that all of his/her employees and Subcontractor employees working on campus have been adequately trained in confined space entry procedures, entry in TU confined spaces is strictly forbidden. Questions concerning TU CSEP should be directed to EHS.

The Contractor assumes all responsibility for any work delays associated with noncompliance with confined space regulations.

8. Respiratory Protection

The Contractor agrees to comply with all local, state and federal regulations pertaining to the use of respiratory protection equipment. It is the Contractor's responsibility to ensure their workers are provided and wearing the appropriate respiratory protection device suitable to the hazard.

The Contractor will provide the Contract Administrator with a written copy of their Respiratory Protection Plan (RPP) for review and approval at least 5 weekdays in advance of the planned entry. If approved, the Contractor may utilize his/her RPP while on campus. If disapproved, or if the Contractor does not have a written RPP, the Contractor will comply with the University's RPP. Questions concerning TU RPP should be directed to EHS at 410-704-2949.

The Contractor assumes all responsibility for any work delays associated with noncompliance with respiratory protection regulations.

9. Waste Disposal

The Contractor is responsible for the removal and disposal of all non-hazardous waste products generated from his/her work on campus. All non-hazardous waste materials generated by the Contractor shall be removed from campus (unless otherwise specified) and disposed of in accordance with all applicable federal, state and county laws and regulations. The University reserves the right to require the use of a TU Non-Hazardous Waste Manifest for transport off campus of any University non-hazardous waste. The University also reserves the right to approve or disapprove the facility(ies) the Contractor utilizes for disposal of any University non-hazardous wastes (as necessary). All costs will be borne by the Contractor for the disposal of all hazardous or non-hazardous wastes, unless otherwise specified in the contract.

Under no circumstances is any Contractor's generated hazardous waste to be disposed of on campus. The Contractor is responsible for the removal and proper disposal of all his/her hazardous waste, in accordance with all applicable federal, state and county laws and regulations. Contractor's generated hazardous waste is waste resulting from their operations/equipment on campus when using Contractor owned/supplied materials/chemicals. Disposal costs for this will be borne solely by the Contractor.

The University routinely performs wastewater monitoring in accordance with its Industrial Wastewater Discharge Permit and routinely screens campus discharges for hazardous wastes. The Contractor will be held liable for any assessed penalties attributable to the improper discharge of hazardous wastes from campus facilities.

Contracts that require Contractors to transport and/or dispose of regulated hazardous materials (i.e., hazardous wastes) owned and/or generated by Towson University will be disposed of by Towson University Environmental Health & Safety utilizing existing University hazardous waste disposal contractors. The Contractor should contact EHS as soon as the hazardous wastes have been identified to coordinate the disposal.
All transportation and disposal costs will be paid by Towson University and then back charged to the Contractor.

Any questions concerning the disposal of hazardous or non-hazardous waste should be directed to EHS at 410-704-2949.

10. **The Control of Hazardous Energy Source (Lock Out/Tag Out)**

The Contractor agrees to comply with all local, state and federal regulations pertaining to the control of hazardous energy sources. The Contractor is responsible for insuring his/her workers and any Subcontractors are adequately trained in Lockout/Tagout procedures in accordance with OSHA 1910.147, *The Control of Hazardous Energy Sources (Lock Out/Tag Out)*.

The Contractor will provide the Contract Administrator with a written copy of their Lock Out/Tag Out policy (LO/TO) and/or procedures for review and approval at least five (5) working days in advance of the commencement date of the contract. Prior to work commencement, the Contractor will also certify in writing that all of his/her workers and Subcontractors have been trained in accordance with OSHA 1910.147. This certification will list all employees working on campus by name and social security number.

If the Contractor's LO/TO is approved, the Contractor may utilize their LO/TO for work on hazardous energy sources. If disapproved, or if the Contractor does not have a written LO/TO, the Contractor will comply with TU LO/TO Policy/Procedures. Until such time as the Contractor provides written certification that all his/her employees and Subcontractors working on campus have been adequately trained in LO/TO procedures, work on hazardous energy sources is strictly forbidden. Questions concerning TU LO/TO Policy/Procedures shall be directed to EHS at 410-704-2949.

The Contractor assumes all responsibility for any work delays associated with noncompliance with the control of Hazardous Energy Sources regulations.

11. **Wastewater/Sewer Discharge**

The University's Wastewater Discharge Permit strictly prohibits the disposal of waste chemicals and corrosives via the sanitary sewer system. NO waste chemicals (i.e., old, unused, excess, etc.), including, but not limited to, organic solvents and/or corrosives (pH less than or equal to 6 and greater than or equal to 10) will be disposed of on campus via the sanitary sewer system without advance written approval of the TU Department of Environmental Health & Safety (EHS). The Contractor shall submit MSDS's for all waste chemicals they wish to dispose of in the sanitary sewer to EHS five (5) working days in advance for approval.

The University routinely performs wastewater monitoring in accordance with its Industrial Wastewater Discharge Permit and routinely screens campus discharges for waste chemicals and corrosives. The Contractor will be held liable for any assessed penalties attributable to the improper discharge of these materials from campus facilities.

The Contractor is subject to unannounced inspections of the chemicals their employees are using on campus. TU Department of Environmental Health & Safety will conduct these unannounced inspections.

12. **Safety Training/Inspections/Meetings**

The Contractor is responsible to notify the Contract Administrator five (5) working days in advance of the date, time and location of their monthly safety meeting.

13. **Materials**

No asbestos, lead, or PCB containing materials (0%) are to be utilized /installed on campus unless prior written approval has been received from the University's Department of Environmental Health & Safety (410-704-2949).

14. **Stormwater Pollution Prevention/Prohibition of Illicit Discharges**

No person shall cause or contribute discharge directly or indirectly into the Towson University municipal storm drain system or waterways any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water.

Refer to 06-20.00 – *University Policy on Stormwater Illicit Discharge Detection and Elimination* for additional information.

No person may improperly store, handle, use or apply any pollutant in a manner that will cause its exposure to rainfall, runoff and discharge into the Towson University municipal stormwater drain system or campus waterways.

The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described:

a. The following discharges are exempt from discharge prohibitions:
   - water line flushing or other potable water sources, landscape irrigation or lawn watering, diverted stream flows, rising ground water, ground water infiltration to storm drains, uncontaminated pumped ground water, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, non-commercial washing of vehicles, natural riparian habitat or wet-land flows, swimming pools (if dechlorinated - typically less than one PPM chlorine), fire-fighting activities, and any other water source not containing pollutants.

b. Any discharges specified in writing by Towson University Environmental Health & Safety as being necessary to protect public health and safety.

c. Dye testing only with required verbal notification to Towson University Environmental Health & Safety ([410) 704-2949 or safety@towson.edu]) prior to the time of the test.

d. The following discharges are exempt from discharge prohibitions: water line flushing or other potable water sources, landscape irrigation or lawn watering, diverted stream flows, rising ground water, ground water infiltration to storm drains, uncontaminated pumped ground water, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, non-commercial washing of vehicles, natural riparian habitat or wet-land flows, swimming pools (if dechlorinated - typically less than one PPM chlorine), fire-fighting activities, and any other water source not containing pollutants.

15. **Prohibition of Illicit Connections**

The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited. This prohibition expressly includes, without limitation, any illicit connections made in the past. This is regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection. A person is considered to be in violation if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.
16. Notification of Spills or Illicit Discharges
Notwithstanding other requirements by law, as soon as any contractor has information regarding any known or suspected release of materials that result or may result in illegal discharges or pollutants discharging into storm water, the storm drain system, campus waterways, said person shall take all necessary steps to ensure the discovery, immediate containment, and cleanup of such release. In the event of a release of hazardous materials or upon observing an illicit environmental discharge immediately contact the Towson University Police Department (TUPD) at (410) 704-4444. In the event of a release of non-hazardous materials, notify Towson University Environmental Health & Safety in person or by phone [(410) 704-2949] or e-mail [safety@towson.edu] no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to Environmental Health & Safety, Towson University, 8000 York Road, Towson, MD 21252 within three business days of the phone notice.

17. Enforcement

a. Enforcement for student violators will follow the TU Office of Student Conduct and Civility Education Code of Student Conduct.

b. Enforcement for University employees (Faculty and Staff) shall follow the Towson University Policy for discipline or termination Policy No. 07.05.25 – Disciplinary Action for Employees.

c. Enforcement for Visitors (Non-TU Faculty, Staff, Students or Contractors)

d. Individuals or Contractors, depending on the nature and severity of the violation, may be referred to MDE for prosecution for violation of federal and state laws and regulations.

e. Any fines, penalties, environmental monitoring or remediation expenses, etc., resulting from the illicit discharge, will be violator’s responsibility.

f. During normal University business hours (Monday–Friday, 8am-4pm), contact EHS at (410) 704-2949 to report violations.

g. If the violator is still on the scene, they should also immediately contact TUPD at (410) 704-4444.

h. After normal duty hours, weekends and holidays, contact TUPD at (410) 704-4444 to report violations.
EXHIBIT A-2
REQUIRED CONTRACT PROVISIONS
CONSTRUCTION AND MAINTENANCE

The provisions contained in this exhibit will be incorporated and be a part of the contract entered into between Towson University and any contractors as a result of this procurement.

1. Affirmation - Contingent Fees
The Contractor shall submit with its bid/proposal a Procurement Affirmation regarding contingent fees in the form required by USM Procurement Policies and Procedures.

2. Affirmation - Debarment
The Contractor shall submit with its bid/proposal a Procurement Affirmation in the form required by USM Procurement Policies and Procedures.

3. Affirmation Regarding Debarment of Related Entities
The Contractor shall submit with its bid/proposal a Procurement Affirmation regarding debarment of related entities in the form required by USM Procurement Policies and Procedures.

4. Affirmation - Non-Collusion
The Contractor shall submit with its bid/proposal a Non-Collusion Affirmation in the form required by USM Procurement Policies and Procedures.

5. Affirmation Regarding Bribery Convictions
The offeror warrants that neither it nor any of its officer, directors, or partners not any of its employees who are directly involved in obtaining or performing contracts with any public body has been convicted of bribery, attempted bribery, or conspiracy to bribe under the laws of any state or of the federal government or has engaged in conduct since July 1, 1977, which would constitute bribery, attempted bribery, or conspiracy to bribe under the laws of any state or the federal government.

The Contractor shall submit with its bid/proposal a Procurement Affirmation regarding bribery convictions in the form required by University System of Maryland (USM) Procurement Policies and Procedures.

6. Affirmation Regarding Other Convictions
The Contractor shall submit with its bid/proposal a Procurement Affirmation regarding other convictions in the form required by USM Procurement Policies and Procedures.

7. Affirmation Regarding Sub-Contractors
The Contractor shall submit with its bid/proposal a Procurement Affirmation regarding debarment of sub-contractors in the form required by USM Procurement Policies and Procedures.

8. Affirmation - Drug and Alcohol Free Workplace
The contractor warrants that the contractor shall comply with COMAR 21.11.08 Drug and Alcohol Free Workplace, and that the contractor shall remain in compliance throughout the term of this contract.

9. Certification of Corporation Registration and Tax Payment
The Contractor shall submit with its bid/proposal a Procurement Affirmation regarding certification of corporation registration and tax payment in the form required by USM Procurement Policies and Procedures.

10. Affirmation - Financial Disclosure
The Contractor shall submit with its bid/proposal a Financial Disclosure Affirmation in the form required by USM Procurement Policies and Procedures.

11. Affirmation - Political Contribution Disclosure
The Contractor shall submit with its bid/proposal a Political Contribution Disclosure Affirmation in the form required by USM Procurement Policies and Procedures.

12. Contract Affidavit
The successful bidder shall submit, prior to contract award, a Contract Affidavit in the form required by USM Procurement Policies and Procedures.

13. Affirmative Action
The Contractor and all subcontractors shall develop and maintain affirmative action plans directed at increasing the utilization of women and members of minority groups on State public works projects, pursuant to the Executive Order 11246 of the President of the United States of America and guidelines on Affirmative Action issued by the Equal Employment Opportunities Commission (EEOC) 29 C.F.R. part 1608 and the Governor of Maryland’s Executive Order 01.01.1993.16.

14. Amendments and Modifications
The contract documents, as defined within the contract, constitute the entire agreement between the parties hereto. All other communications between the parties prior to execution of the contract, whether written or oral, with reference to the subject matter of the contract are superseded by the agreement contained therein. No amendment of this contract shall be binding unless in writing and signed by the parties. Amendments may not significantly change the scope of the contract.

15. Civil Rights Act of 1964
Contractors providing materials, equipment, supplies or services to the State under the contract herewith assure the State that they are conforming to the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1988, the Civil Rights Act of 1991, and Section 202 of Executive Order 11246 of the President of the United States of America as amended by Executive Order 11375, as applicable.

16. Compliance with Laws
The Contractor hereby represents and warrants that:

a. It is qualified to do business in the State of Maryland, and that it will take such action, as from time to time hereafter, may be necessary to remain so qualified;

b. It is not in arrears with respect to the payment of any monies and owing the State of Maryland, any department or agency thereof, including but not limited to the payment of taxes and employee benefits, and that it shall not become so in arrears during the term of the contract;

c. It shall comply with all federal, State and local laws, ordinances applicable to its activities and obligations under the contract; and;
d. It shall procure, at its expense, all licenses, permits, insurance and governmental approval, if any, necessary to the performance of its obligations under the contract.

17. Compensation and Method of Payment
Contractor agrees to include on the face of all invoices billed to the University, its Taxpayer Identification Number, which is the Social Security Number for individuals and sale proprietors and the Federal Employee Identification Number for all other types of organizations.

18. Confidentiality; dissemination of Information
Contractor shall not release any information related to services or performance of the services under this Contract, nor publish any final reports or documents without the prior written approval of the University. Contractor shall indemnify and hold harmless the State and the University, its officers, agents and employees from all harm which may be incurred by reason of dissemination, publication, distribution or circulation, in any manner whatsoever, of any information, data, documents, or materials pertaining in any way to this Contract by Contractor, its agents or employees.

19. Conflict of Interest Law
It is unlawful for any State officer, employee, or agent to participate personally in his official capacity through decision, approval, disapproval, recommendation, advice, or investigation in any contract or other matter in which he, his spouse, parent, child, brother, or sister has a financial interest or to which any firm, corporation, association, or other organization in which he has a financial interest or in which he is serving as an officer, director, trustee, partner, or employee, or any person or organization with whom he is negotiating or has any arrangement concerning prospective employment, is a party, unless such officer, employee, or agent has previously complied with the provisions of State Government Article §§ 15-501 et seq. of the Annotated Code of Maryland.

20. Contract Modifications and Changes
a. The procurement officer unilaterally may, at any time, without notice to the sureties, if any, by written order designed or indicated to be a change order, make any change in work within the general scope of the contract, including but not limited to changes:

(1) In the specifications (including drawings and designs);
(2) In the method or manner of performance of the work;
(3) In the State-furnished facilities, equipment, materials, services, or site; or
(4) Directing acceleration in the performance of the work.

b. Any other written order or an oral order, including a direction, instruction, interpretation or determination, from the procurement officer that causes any such change, shall be treated as a change order under this clause, provided that the Contractor gives the procurement officer written notice stating the date, circumstances, and source of the order and that the Contractor regards the order as a change order.

c. Except as herein provided, no order, statement, or conduct of the procurement officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment hereunder.

d. Subject to paragraph f., if any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any order, an equitable adjustment shall be made and the contract modified in writing accordingly; provided, however, that except for claims based on defective specifications, no claim for any change under (b.) above shall be allowed for any costs incurred more than 20 days before the Contractor gives written notice as therein required; and provided further, that in the case of defective specifications for which the State is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with such defective specifications.

e. If the Contractor intends to assert a claim for an equitable adjustment under this clause, he shall, within 30 days after receipt of a written change order under a. above or the furnishing or written notice under b. above, submit to the procurement officer a written statement setting forth the general nature and monetary extent of such claim, unless this period is extended by the University. The statement of claim hereunder may be included in the notice under b. above.

f. Each contract modification or change order that affects contract price shall be subject to the prior written approval of the procurement officer and other appropriate authorities and to prior certification of the appropriate fiscal authority of fund availability and the effect of the modification or change order on the project budget or the total construction cost. If, according to the certification of the fiscal authority, the contract modification or change order will cause an increase in cost that will exceed budgeted and available funds, the modification or change order may not be made unless sufficient additional funds are made available or the scope of the project is adjusted to permit its completion within the project budget.

g. No claim by the Contractor for an equitable adjustment hereunder shall be allowed if asserted after final payment under the contract.

21. Contractor's On-Site Representative
The Contractor is required to maintain on site at all times when the work is in progress on this project an individual who represents the Contractor, is responsible for the entire project, and can communicate in English with the University's representative.

22. Contractor's Invoices
Contractor shall include its Taxpayer Identification Number on the face of each invoice billed to the University. If a Purchase Order document is issued, the Purchase Order Number must be included.

23. Cooperation with University and State Representatives
Before any of the work shall begin, the Contractor shall confer with the University's representative at the site and agree on a sequence of procedure, means of access to the premises, space for storage of materials and equipment, use of approaches, use of facilities, etc.

24. Cost and Price Certification
The Contractor, by submitting cost or price information certifies that, to the best of its knowledge, the information submitted is accurate, complete, and current as of a mutually determined specified date prior to the conclusion of any price discussions or negotiations for:

a. A negotiated contract, if the total contract price is expected to exceed $100,000 or a smaller amount set by the procurement officer; or

b. A change order or contract modification, expected to exceed $100,000 or a smaller amount set by the procurement officer.

c. The price under this contract and any change order or modification hereunder, including profit or fee, shall be adjusted to exclude any significant price increases occurring because the Contractor furnished cost or price information which, as of the date agreed upon between the parties, was inaccurate, incomplete, or not current.

25. Default Delay and Time Extension
Termination for Default — Damages for Delay — Time Extensions

(1) If the Contractor refuses or fails to prosecute the work, or any separable part thereof, with such diligence as shall insure its completion within the time specified in this contract, or any extension thereof, or fails to complete said work within this time, the State may, by written notice to the Contractor, terminate his right to proceed with the work or the part of the work as to which there has been delay. In this event the State may take over the work and prosecute the same to completion, by contract or otherwise, and may take possession of and
utilize in completing the work the materials, appliances, and plant as may be on the site of the work and necessary therefor. Whether or not the Contractor’s right to proceed with the work is terminated, he and his sureties shall be liable for any damage to the State resulting from his refusal or failure to complete the work within the specified time.

(2) If fixed and agreed liquidated damages are provided in the contract and if the State so terminates the Contractor’s right to proceed, the resulting damage shall consist of such liquidated damages until a reasonable time as may be required for final completion of the work together with any increased costs occasioned the State in completing the work.

(3) If fixed and agreed liquidated damages are provided in the contract and if the State does not so terminate the Contractor’s right to proceed, the resulting damage shall consist of these liquidated damages until the work is completed or accepted.

(4) The Contractor’s right to proceed may not be so terminated nor the contractor charged with resulting damages if:

(a) The delay in the completion of the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor, including but not restricted to, acts of God, acts of the public enemy, acts of the State in either its sovereign or contractual capacity, acts of another Contractor in the performance of a contract with the State, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, or delays of subcontractors or suppliers arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and

(b) The Contractor, within 10 days from the beginning of any such delay (unless the procurement officer grants a further period of time before the date of final payment under the contract), notifies the procurement officer in writing of the causes of delay. The procurement officer shall ascertain the facts and the extent of the delay and extend the time for completing the work when, in his judgement, the findings of fact justify such an extension, and his findings of fact shall be final and conclusive on the parties, subject only to appeal as provided in the “Disputes” clause of this contract.

(5) If, after notice of termination of the Contractor’s right to proceed under the provisions of this clause, it is determined for any reason that the Contractor was not in default under the provisions of this clause, or that the delay was excusable under the provisions of this clause, the rights and obligations of the parties shall, if the contract contains a clause providing for termination for convenience of the State, be the same as if the notice of termination had been issued pursuant to the clause. If, in the foregoing circumstances, this contract does not contain a clause providing for termination for convenience of the State, the contract shall be equitably adjusted to compensate for the termination and the contract modified accordingly; failure to agree to any such adjustment shall be a dispute concerning a question of fact within the meaning of the clause of this contract entitled “Disputes”.

(6) The rights and remedies of the State provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

(7) As used in paragraph (4)(a) of this clause, the term “subcontractors or suppliers” means subcontractors or suppliers at any tier.

26. Delivery and Acceptance

Delivery shall be made in accordance with the specifications. The University reserves the right to test any materials, equipment, supplies, or services delivered to determine if the specifications have been met. The materials listed in the specifications shall be delivered FOB the point or points specified prior to or on the date specified in the solicitation. Any material that is defective or fails to meet the terms of the specifications may be rejected. Rejected materials shall be promptly replaced. The State reserves the right to purchase replacement materials in the open market. Vendors failing to promptly replace materials lawfully rejected shall be liable for any excess price paid for the replacement, plus applicable expenses, if any.

27. Disputes

a. This contract is subject to the USM Procurement Policies and Procedures.

b. Except as otherwise provided in this contract or by law, all disputes arising under or as a result of a breach of this contract that are not disposed of by mutual agreement shall be resolved in accordance with this clause.

c. As used herein, claim means a written demand or assertion by one of the parties seeking, as a legal right, the payment of money, adjustment or interpretation of contract terms, or other relief, arising under or relating to this contract. A voucher, invoice, or request for payment that is not in dispute when submitted is not a claim under this clause. However, if the submission subsequently is not acted upon in a reasonable time, or is disputed as to liability or amount, it may be converted to a claim for the purpose of this clause.

d. Within 30 days after contractor knows or should have known of the basis for a claim relating to this contract, contractor shall file a written notice of claim with the procurement officer.

e. Contemporaneously with, or within 30 days after, the filing of a notice of claim, contractor shall submit the written claim to the procurement officer. If contractor so requests, the procurement officer, on conditions the procurement officer deems satisfactory to the unit, may extend the time in which contractor must submit the claim. An example of when a procurement officer may grant an extension includes situations in which the procurement officer finds that a contempoaneous or timely cost quantification following the filing of the notice of claim is impossible or impractical.

f. The claim shall set forth all the facts surrounding the controversy. Contractor, at the discretion of the procurement officer, may be afforded an opportunity to be heard and to offer evidence in support of the claim.

g. The procurement officer shall mail or deliver written notification of the final decision within:

(1) 90 days after the procurement officer receives the claim if the claim is an amount for which the Appeals Board accelerated procedure, set forth in COMAR 21.10.06.12, may be used;

(2) 180 days after the procurement officer receives the claim for a claim not covered under §G(1) of this regulation; or

(3) A longer period that the procurement officer and contractor agree to in writing.

h. The final decision may award a contract claim only for those expenses incurred not more than 30 days before contractor was initially required to have filed the notice of claim.

i. The procurement officer’s decision is the final action of the University. If the procurement officer fails to render a final decision within the time required, contractor may deem the failure to be a final decision not to pay the claim.

j. If the final decision grants the claim in part and denies the claim in part, the University shall pay contractor the undisputed amount. Payment of the partial claim is not an admission of liability by the University and does not preclude the University from recovering the amount paid if a subsequent determination modifies the final decision.

k. Contractor may file a written appeal with the Maryland State Board of Contract Appeals within 30 days of receipt of notice of the decision.
I. Pending resolution of a claim, contractor shall proceed diligently with the performance of the contract in accordance with the procurement officer's decision.

28. Dissemination of Information  
   a. During the term of the contract, the Contractor shall not release any information related to the services or performance of the services under the contract nor publish any final reports or documents without the prior written approval of the University.
   b. The Contractor shall indemnify and hold harmless the State and the University, its officers, agents and employees, from all liability which may be incurred by reason of dissemination, publication, distribution or circulation, in any manner whatsoever, of any information, data, documents, or materials pertaining in any way to the contract by the Contractor, its agents or employees.

29. EPA Compliance  
   Materials, supplies, equipment and services shall comply in all respects with the federal Noise Control Act of 1972, where applicable.  
   Power equipment, to the greatest extent possible, shall be the quietest available.  
   Equipment certified by the US EPA as a Low Noise Emission Product pursuant to the Federal Noise Control Act of 1972 shall be considered to meet the intent of the regulation.

   The Contractor must supply and have immediately available to their employees spill containment equipment/supplies necessary to contain any hazards it may introduce to the job site.  
   The Contractor is responsible for any and all costs incurred by the University in remediating spills or releases of materials introduced onto the job site.

   Depending on the nature of the contract, the additional environmental and safety provisions contained in Exhibit A-1 may also be required.

30. FERPA  
   The Parties agree to maintain the privacy and security of personally identifiable educational records and health information and to prevent disclosure in compliance with Federal laws.

   The Contractor agrees that in performing its obligations under this contract, the Contractor shall comply with all requirements of a non-affiliated third-party who receives a financial institution’s consumer or customer information, under the Gramm-Leach-Bliley Act of 1999 and applicable regulations thereto (the “GLB Act”) and other applicable federal and state consumer privacy acts, rules and regulations.  
   Nonpublic personal information shall have the same meaning as that term is defined in the GLB Act.
   a. The Contractor agrees to disclose such nonpublic personal information for the sole purpose of facilitating the Contractor’s performance of its duties and obligations under the contract and will not disclose such nonpublic personal information to any other party unless such disclosure is (i) allowed by the GLB Act and consented to by the University, or (ii) compelled by law, in which case the Contractor will provide notice of such disclosure to the University.
   b. The Contractor represents and warrants that it will, for so long as it retains nonpublic personal information, implement and maintain in place the necessary information security policies and procedures for (i) protecting the confidentiality of such nonpublic personal information, (ii) protecting against any anticipated threats or hazards to the security or integrity of such nonpublic personal information, and (iii) protecting against unauthorized access to or use of such nonpublic personal information.  
   These terms apply to all subcontractors employed by the Contractor who perform work under the scope of the agreement.

If the Contractor’s price includes the cost of Contractor furnishing any other material, equipment, supplies, or other items in connection with the Contract, the Contractor shall pay the Maryland sales tax.

32. Incorporation by Reference  
   The terms of this solicitation and any amendments thereto are made a part of this Contract.

33. Indemnification  
   The University shall not assume any obligation to indemnify, hold harmless, or pay attorneys' fees that may arise from or in any way be associated with the performance or operation of this agreement.

34. Inspection by the University  
   The University may provide for inspection, at any time, of any part of the Contractor's work, and of any of the materials, supplies or equipment which the Contractor may have on hand or in the building.  
   The Contractor shall provide adequate cooperation with any inspector assigned by the University to permit the inspector to determine the Contractor’s conformity with these specifications and the adequacy of the work being performed.

35. Intellectual Property  
   Contractor agrees to indemnify and save harmless the University, its officers, agents and employees with respect to any claim, action, cost or judgment for patent infringement, or trademark or copyright violation arising out of purchase or use of materials, supplies, equipment or services covered by the contract.

36. I-9 Requirement  
   Contractor warrants and represents that it is currently in compliance, and that during the term of the contract it will remain in compliance, with the Immigration Reform and Control Act of 1986, and that it will obtain original valid employment verification documentation from all its employees on a timely basis as required by law and regulation.  
   This requirement also applies to all subcontractors hired by Contractor.

37. Insurance and Indemnification Provisions  
   a. The Contractor shall defend, indemnify and save harmless the University System of Maryland, its officers, employees and agents, from any and all claims, liability, losses and causes of actions which may arise out of the performance by the Contractor, employees or agents, of the work covered by the contract.
   b. The Contractor shall secure, pay the premiums for, and keep in force until the expirations of the contract, and any renewal thereof, adequate insurance as provided below, such insurance to specifically include liability assumed by the Contractor under the contract.
   i. Commercial General Liability Insurance including all extensions
      $2,000,000 each occurrence;  
      $2,000,000 personal injury;  
      $2,000,000 products/completed operations;  
      $2,000,000 general aggregate
   ii. Workmen’s Compensation Insurance and Unemployment Insurance as required by the laws of the State of Maryland.
   iii. Owner’s, Landlord’s and Tenant’s and Contractor’s bodily injury liability insurance, with limits of not less than $500,000 for each person and $2,000,000 for each accident.
   iv. Property damage liability insurance with a limit of not less than $2,000,000 for each accident.
   v. If automotive equipment is used in the operation, automobile bodily injury liability insurance with limits of not less than $1,000,000 for each person and $2,000,000 for each accident, and property damage liability insurance, with a limit of not less than $2,000,000 for each accident.
   c. Each policy for liability protection, bodily injury or property damage must specifically name, on its face, the University System of Maryland as an additional named insured as respects operations under the contract and premises occupied by the Contractor provided, however,
with respect to the Contractor’s liability for bodily injury or property
damage under items b(1) b(6) above, such insurance shall cover and
not exclude Contractor’s liability for injury to the property of the
University System and to the persons or property of employees,
students, faculty members, agents, officers, regents, invitees or guests
of the University System.

d. Each insurance policy shall contain the following endorsements:
“It is understood and agreed that the Insurance Company shall notify
in writing procurement officer forty-five (45) days in advance of the
effective date of any reduction in or cancellation of this policy.” A
certificate of each policy of insurance shall be furnished to the
procurement officer. With the exception of Workmen’s Compensation,
upon the request of the procurement officer, a certified true copy of
each policy of insurance, including the above endorsement, manually
countersigned by an authorized representative of the insurance
company, shall be furnished to the procurement officer. A certificate of
insurance for Workmen’s Compensation together with a properly
executed endorsement for cancellation notice shall also be furnished.
Following the notice of contract award, the requested certificates and
policies shall be delivered as directed by the procurement officer.
Notices of policy changes shall be furnished to the procurement officer.

e. All required insurance coverages must be acquired from insurers
authorized to do business in the State of Maryland acceptable to
the University. The insurers must have a policyholders’ rating of “A-”
or better, and a financial size of “Class VII” or better in the latest edition
of Best’s Insurance Reports.

38. Fire and Extended Coverage Insurance
a. Contractor shall carry, at its own expense, builder’s risk insurance
for the full contract amount, insuring against the perils of fire, lightning,
extended coverage vandalism, and malicious mischief subject only to
the minimum standard deductible currently filed by the Insurance
Service Office with the State of Maryland Insurance Department. The
University will provide no coverage during the construction period.

b. The builder’s risk policy shall contain endorsements reading as follows:

(1) It is the intent of this insurance to cover specifically all the Work
being done under the Contract between the insureds, and as to such
Work this policy shall be primary insurance and shall not contribute or
claim contribution from any other insurance being carried which, by its
terms, would also cover the property covered hereunder in the absence
of this insurance.

(2) Coverage afforded under this policy will not be canceled until at
least fifteen (15) days prior written notice has been given to the
Procurement Officer.

c. Certificates of insurance shall be submitted to the Procurement
Officer for review and approval prior to commencement of work, and
shall be held for the duration of the contract. The University shall have
the absolute right to terminate the contract if the policy of insurance is
canceled at any time for any reason and a new policy is not obtained
by Contractor and approved by the Procurement Officer.

d. The above insurance shall remain in full force and effect until such
time as the University shall fully accept the work covered by this
contract.

39. Liquidated Damages
Time is an essential element of the contract and it is important that the
work be vigorously prosecuted until completion.

For each day that any work shall remain uncompleted beyond the
time(s) specified elsewhere in the contract, the Contractor shall be
liable for liquidated damages in the amount(s) provided for in the
solicitation, provided, however, that due account shall be taken of any
adjustment of specified completion time(s) for completion of work as
granted by approved change orders.

40. Local Conditions Covering Work
The Contractor shall cooperate with those in authority on the premises
to prevent the entrance and exit of all workmen and/or others whose
presence is forbidden or undesirable and in bringing, storing or removal
of all materials and equipment, to observe all rules and regulations in
force on the grounds, to avoid unnecessary dust or accumulated debris
or the undue interference with the convenience, sanitation or routine of
the University and to prevent the loss of, or damage to the property of
the University and/or its employees. The Contractor shall repair any
and all damage he may cause to the building or property, to the full
satisfaction of the University.

41. Mandated Contractor Reporting of Suspected Child Abuse &
Neglect
Maryland law contains mandatory reporting requirements for all
individuals who suspect child abuse or neglect. Contractors performing
work on campus also must comply with USM Board of Regents (BOR)
VI-1.50 – Policy on the Reporting of Suspected Child Abuse & Neglect,
as well as the University Procedures for Reporting Suspected Child
Abuse and Neglect. The above-referenced USM/University Policy and
Procedures are available in full at the following link:
https://inside.towson.edu/generalcampus/tupolicies/documents/06-
01.50%20Policy%20on%20the%20Reporting%20of%20Suspected
Child%20Abuse%20and%20Neglect.pdf, and are incorporated
herein. The University reserves the right to terminate the contract if
Contractor fails to comply with the above-referenced policy or
procedures, or if, in the judgment of the University, termination is
necessary to protect the safety and welfare of children who come into
contact with the University community.

42. Maryland Law Prevails
The contract shall be governed by the laws of the State of Maryland.
The parties agree that exclusive jurisdiction shall reside with the state
and federal courts in the State of Maryland.

43. Non-Hiring of Employees
No employee of the State of Maryland, or any department, commission,
agency or branch thereof whose duties as such employee include
matters relating to or affecting the subject matter of the contract, shall,
while so employed, become or be an employee of the party or parties
hereby contracting with the State or any department, commission,
agency or branch thereof.

44. Non-Discrimination
The Contractor will comply with all applicable Federal and State laws,
rules and regulations involving non-discrimination on the basis of race,
color, creed, religion, national origin, age, sex, political affiliation,
marital status, veteran status, condition of disability, or other non-merit
factor. In addition, Towson University’s policies, programs, and
activities comply with federal and state laws and University System of
Maryland regulations prohibiting discrimination on the basis of race,
color, religion, age, national origin, sex, disability, and sexual
orientation. Provisions for reasonable accommodations shall be made
by the Contractor for handicapped applicants and qualified
handicapped individuals.

45. Non-Visual Access
The bidder or offeror warrants that the information technology offered
under this bid or proposal (1) provides equivalent access for effective
use by both visual and nonvisual means; (2) will present information,
including prompts used for interactive communications, in formats
intended for both visual and nonvisual use; (3) if intended for use in a
network, can be integrated into networks for obtaining, retrieving, and
disseminating information used by individuals who are not blind or
visually impaired; and (4) is available, whenever possible, without
modification for compatibility with software and hardware for nonvisual
access. The bidder or offeror further warrants that the costs, if any, of
modifying the information technology for compatibility with software
and hardware used for nonvisual access will not increase the cost of
the information technology by more than 5 percent.

Exhibit A-2 Rev. 1/31/18
46. Ownership of Documents and Materials
The Contractor agrees that all documents and materials including, but not limited to, reports, drawings, studies, specifications, estimates, maps, photographs, designs, graphics, mechanical, artwork, and computations prepared by or for it under the terms of the contract shall at any time during the performance of the services be made available to the University upon request by the University and shall become and remain the exclusive property of the University upon termination or completion of the services. The University shall have the right to use same without restriction or limitation and without compensation to the Contractor other than that provided by the contract. The University shall be the owner for purposes of copyright, patent or trademark registration.

47. Patents, Copyrights and Trade Secrets
a. If the Contractor furnishes any design, device, material, process or other item which is covered by a patent or copyright or which is proprietary to or a trade secret of another, Contractor shall obtain the necessary permission or license to use such item.

b. Contractor will defend or settle, at its own expense, any claim or suit against the State alleging that any such item furnished by Contractor infringes any patent, trademark, copyright, or trade secret. Contractor also will pay all damages and costs that by final judgment may be assessed against the State due to such infringement and all attorneys’ fees and litigation expenses reasonably incurred by the State to defend against such a claim or suit. The obligations of this paragraph are in addition to those stated in paragraph c.

c. If any products furnished by Contractor become, or in Contractor’s opinion are likely to become, the subject of a claim of infringement, Contractor will, at its option: (1) procure for the State the right to continue using the applicable item; (2) replace the product with a non-infringing product substantially complying with the item’s specifications; or (3) modify the item so it becomes non-infringing and performs in a substantially similar manner to the original item.

48. Payment Bond
A payment bond is required for all construction contracts in excess of $100,000 in the amount equal to at least 100 percent of the contract price. The payment bond shall be delivered by the contractor to the State not later than the time the contract is executed. If a contractor fails to deliver the required payment bond, the contractor’s bid shall be rejected, its bid security shall be enforced, and award of the contract shall be made to the next lowest responsive and responsible bidder.

The required payment bond shall be in the State of Maryland form in effect at the time the contract is executed per COMAR 21.07.02.10B.

49. Performance Bond
A performance bond is required for all construction contracts in excess of $100,000 in the amount equal to at least 100 percent of the contract price. The performance bond shall be delivered by the contractor to the University not later than the time the contract is executed. If a contractor fails to deliver the required performance bond, the contractor’s bid shall be rejected, its bid security shall be enforced, and award of the contract may be made to the next lowest responsive and responsible bidder.

The required performance bond shall be in the State of Maryland form in effect at the time the contract is executed per COMAR 21.07.02.10A.

50. Payment of State Obligations
Payments to the Contractor pursuant to this contract shall be made no later than 30 days after the University’s receipt of a proper invoice from the Contractor. Charges of late payment of invoices, other than as prescribed by Title 15, subtitle 1, of the State Finance and Procurement Article, Annotated Code of Maryland, or by the Public Service Commission of Maryland with respect to regulated public utilities, as applicable, are prohibited.

51. Policies and Procedures
The USM Procurement Policies and Procedures in effect on the date of execution of this Contract are applicable to this Contract.

52. Responsibility of Contractor
a. The Contractor shall perform the services with that standard of care, skill, and diligence normally provided by a Contractor in the performance of services similar to the services hereunder.

b. Notwithstanding any review, approval, acceptance or payment for the services by the University, the Contractor shall be responsible for professional and technical accuracy of its work, design drawings, specifications and other materials furnished by the Contractor under the contract.

53. Prompt Payment of Subcontractors
a. This contract and all subcontracts issued under this contract are subject to the provisions of State Finance and Procurement Article, §15-226, Annotated Code of Maryland. References to “undisputed amount”, “prime contractor”, “contractor” and “subcontractor” have the meanings stated in Section 6.2 a-d herein have the meanings state in COMAR 21.10.08.01.

b. A contractor shall promptly pay its subcontractors an undisputed amount to which a subcontractor is entitled for work performed under this contract within 10 calendar days after the contractor receives a progress payment or final payment for work under this contract.

c. If a contractor fails to make payment within the period prescribed in b., a subcontractor may request a remedy in accordance with COMAR 21.10.08.

d. A contractor shall include in its subcontracts for work under the contract, wording that incorporates the provisions, duties, and obligations of 6.1 a-d: State Finance and Procurement Article, §15-226, Annotated Code of Maryland; and COMAR 21.10.08.

54. Responsibility for Claims and Liability
The Contractor shall be responsible for all damage to life and property due to its activities or those of its agents or employees, in connection with the services required under the contract. Further, it is expressly understood that the Contractor shall indemnify and save harmless the University, its officers, agents, and employees from and against all claims, suits, judgments, expenses, actions, damages and costs of every name and description, including reasonable attorney’s fees and litigation expenses arising out of or resulting from the negligent performance of the services of the Contractor under the contract.

55. Responsibility for Damage
a. The Contractor shall repair and restore to its original condition any equipment, materials or surfaces damaged by its operations.

b. The Contractor shall be entirely responsible for any loss or damage to its own materials, supplies, and equipment, and to the personal property of its employees while they are in the building.

c. The Contractor shall be solely responsible for any damage to the building or its contents for any loss or damage to any property belonging to the University or the University employees when such loss or damage may be attributable to their actions or negligence or the actions or negligence of their employees.
56. Retainage
   a. This section shall apply if the contractor has furnished 100 percent payment security and 100 percent performance security. The contractor and each subcontractor at any tier shall incorporate the mandatory provisions outlined below in paragraphs b. through d. of this section, into each subcontract for work related to this contract.
   b. The contractor may not retain from any payment due a subcontractor a percent of the payment greater than the percent for retainage specified in the contract.
   c. A subcontractor at any tier may not retain from any payment due a lower tier subcontractor a percent of the payment greater than the percent of payments retained from the subcontractor.
   d. A contractor and a subcontractor are not prohibited, by this section from withholding an amount in addition to retainage if the contractor or subcontractor determines that a subcontractor’s performance under the subcontract provides reasonable grounds for withholding an additional amount.

57. Retention of Records
The Contractor shall retain and maintain all records and documents relating to the contract for a minimum period of four years after payment by the University of the final invoice and shall make them available for inspection and audit by the State of Maryland.

58. Set-Off
The University may deduct from and set off against any amounts due and payable to the Contractor any back-charges or damages sustained by the University by virtue of any breach of the contract by the Contractor or by virtue of the failure or refusal of the Contractor to perform the services or any part of the services in a satisfactory manner. Nothing herein shall be construed to relieve the Contractor of liability for additional costs resulting from a failure to satisfactorily perform the services.

59. Site Investigation
The Contractor acknowledges that he has investigated and satisfied himself as to the conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, river stages, tides or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during prosecution of the work. The Contractor further acknowledges that he has satisfied himself as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the University, as well as from information presented by the drawings and specifications made a part of this contract. Any failure by the Contractor to acquaint himself with the available information may not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the work. The University assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the University.

60. Software Contracts:
As specifically provided by § 21-104, Commercial Law Article, Annotated Code of Maryland, the parties agree that this Agreement shall not be governed by the Uniform Computer Information Transactions Act (UCITA), Title 21 of the Commercial Law Article of the Annotated Code of Maryland, as amended from time to time. This Agreement shall be governed by the common law of Maryland relating to written agreements, as well as other statutory provisions, other than UCITA, which may apply, and shall be interpreted and enforced as if UCITA had never been adopted in Maryland.

Contractor agrees that as delivered to buyer, the software does not contain any program code, virus, worm, trap door, back door, timer or clock that would erase data or programming or otherwise cause the software to become inoperable, inaccessible, or incapable of being used in accordance with its user manuals, either automatically upon the occurrence of selected conditions, or manually on command of Contractor.

61. Specifications
All materials, equipment, supplies or services shall conform to Federal and State laws and regulations and to the specifications contained in the solicitation. No asbestos, lead, or PCB-containing materials (0%) are to be utilized/installed on campus unless prior written approval has been received from the University's Department of Environmental Health & Safety (410-704-2949).

62. Subcontracting or Assignment
The benefits and obligations hereunder shall take effect and be binding upon the parties hereto and neither the contract nor the services to be performed thereunder shall be subcontracted, or assigned or otherwise disposed of, either in whole or in part, except with the prior written consent of the University.

63. Suspension of Work
The procurement officer unilaterally may order the Contractor in writing to suspend, delay, or interrupt all or any part of the work for such period of time as he may determine to be appropriate for the convenience of the University.

64. Tax Exemption
The State is generally exempt from federal excise taxes, Maryland sales and use taxes, District of Columbia sales taxes, and transportation taxes. Exemption certificates shall be provided upon request. Where a Contractor is required to furnish and install material in the construction of improvement to real property in performance of the Contract, the Contractor shall pay the Maryland sales tax and the exemption does not apply.

65. Termination of Contract for Default
If the Contractor fails to fulfill its obligation under the contract properly and on time, or otherwise violates any provision of the contract, the University may terminate the contract by written notice to the Contractor. The notice shall specify the acts or omissions relied on as cause for termination. All finished or unfinished services provided by the Contractor shall, at the University's option, become the University's property. The University shall pay the Contractor fair and equitable compensation for satisfactory performance prior to receipt of notice of termination, less the amount of damages caused by the Contractor's breach. If the damages are more than the compensation payable to the Contractor, the Contractor will remain liable after termination and the University can affirmatively collect damages. The term "damages" as used in this paragraph may include attorney's fees and litigation costs. Termination hereunder, including the determination of the rights and obligations of the parties, shall be governed by the provisions of USM Procurement Policies and Procedures.

66. Termination of Contract for Convenience
The performance of work under the contract may be terminated by the University in accordance with this clause in whole, or from time to time in part, whenever the University shall determine that such termination is in the best interest of the University. The University will pay all reasonable costs associated with the contract that the Contractor has incurred up to the date of termination and all reasonable costs associated with termination of the contract. However, the Contractor shall not be reimbursed for any anticipatory profits which have not been earned up to the date of termination. Termination hereunder, including the determination of the rights and obligations of the parties, shall be governed by the provisions of USM Procurement Policies and Procedures.
67. Termination of Multi-Year Contracts
If the General Assembly fails to appropriate funds or if funds are not otherwise made available for continued performance for any fiscal period of the contract succeeding the first fiscal period, the contract shall be canceled automatically as of the beginning of the fiscal year for which funds were not appropriated or otherwise made available; provided, however, that this will not affect either the State's rights or the Contractor's rights under any termination clause in the contract. The effect of termination of the contract hereunder will be to discharge both the Contractor and the State from future performance of the contract, but not from their rights and obligations existing at the time of termination. The Contractor shall be reimbursed for the reasonable value of any non-recurring costs incurred but not amortized in the price of the contract. The State will notify the Contractor as soon as it has knowledge that funds may not be available for the continuation of the contract for each succeeding fiscal period beyond the first.

68. Truth-In-Negotiation Certification
The Contractor by submitting cost or price information, including wage rates or other factual unit costs, certifies to the best of its knowledge, information and belief, that:

a. The wage rates and other factual unit costs supporting the firm's compensation, as set forth in the proposal, are accurate, complete and current as of the contract date;

b. If any of the items of compensation were increased due to the furnishing of inaccurate, incomplete or noncurrent wage rates or other units of costs, the State is entitled to an adjustment in all appropriate items of compensation, including profit or fee, to exclude any significant sum by which the price was increased because of the defective data. The State's right to adjustment includes the right to a price adjustment for defects in costs or pricing data submitted by a prospective or actual subcontractor; and

c. If additions are made to the original price of the contract, such additions may be adjusted to exclude any significant sums where it is determined the price has been increased due to inaccurate, incomplete or noncurrent wage rates and other factual costs."

69. Use of Contractor's Forms Not Binding on State
a. Except as provided in b., the use or execution by the State of any forms, orders, agreements, or other documents of any kind, other than the contract documents, used pursuant to or in the administration of any contract awarded by the State to Contractor, shall not bind the State to any of the terms and conditions contained therein except those provisions:

(1) generally describing, for the purposes of ordering: Equipment or services to be provided, locations, quantities, delivery or installation dates, and, to the extent consistent with the contract documents, prices; and

(2) not otherwise inconsistent with the contract documents.

b. Any such form, order, agreement or other document shall not vary, modify, or amend the terms and provisions of the contract documents, notwithstanding any provision to the contrary in such document, unless all of the following conditions are met:

(1) the document expressly refers to the particular document and provision of the contract documents being modified and plainly and conspicuously identifies any modification thereto as a modification:

(2) the document is executed on behalf of the State by the procurement officer; and

(3) execution of the document is approved by the procurement authority whose approval is required by law.

70. Variations in Estimated Quantities
Where the quantity of a pay item in this contract is an estimated quantity and where the actual quantity of such pay item varies more than twenty-five percent (25%) above or below the estimated quantity stated in this contract, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above one hundred twenty-five percent (125%) or below seventy-five percent (75%) of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the procurement officer shall, upon receipt of a written request for an extension of time within ten (10) days from the beginning of the delay, or within a further period of time which may be granted by the procurement officer before the date of final settlement of the contract, ascertain the facts and make the adjustment for extending the completion date as in his judgment the findings justify.
EXHIBIT B
BID/PROPOSAL AFFIDAVIT

A. AUTHORITY

I HEREBY AFFIRM THAT:

I am the (title) ________________________________ and the duly authorized representative of (business) ________________________________ and that I possess the legal authority to make this Affidavit on behalf of myself and the business for which I am acting.

B. AFFIRMATION REGARDING BRIBERY CONVICTIONS

I FURTHER AFFIRM THAT: Neither I, nor to the best of my knowledge, information, and belief, the above business (as is defined in Section 16-101(b) of the State Finance and Procurement Article of the Annotated Code of Maryland), or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business's contracting activities including obtaining or performing contracts with public bodies has been convicted of, or has had probation before judgment imposed pursuant to Criminal Procedure Article, §6-220, Annotated Code of Maryland, or has pleaded nolo contendere to a charge of, bribery, attempted bribery, or conspiracy to bribe in violation of Maryland law, or of the law of any other state or federal law, except as follows (indicate the reasons why the affirmation cannot be given and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of person(s) involved, and current positions and responsibilities with the business):


C. AFFIRMATION REGARDING OTHER CONVICTIONS RETAINED

I FURTHER AFFIRM THAT: Neither I, nor to the best of my knowledge, information, and belief, the above business, or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business's contracting activities including obtaining or performing contracts with public bodies, has:

(1) Been convicted under state or federal statute of:

   (a) A criminal offense incident to obtaining, attempting to obtain, or performing a public or private contract; or

   (b) Fraud, embezzlement, theft, forgery, falsification or destruction of records or receiving stolen property;

(2) Been convicted of any criminal violation of a state or federal antitrust statute;

(3) Been convicted under the provisions of Title 18 of the United States Code for violation of the Racketeer Influenced and Corrupt Organization Act, 18 U.S.C. §1961 et seq., or the Mail Fraud Act, 18 U.S.C. §1341 et seq., for acts in connection with the submission of bids or proposals for a public or private contract;

(4) Been convicted of a violation of the State Minority Business Enterprise Law, §14-308 of the State Finance and Procurement Article of the Annotated Code of Maryland;
(5) Been convicted of a violation of §11-205.1 of the State Finance and Procurement Article of the Annotated Code of Maryland;

(6) Been convicted of conspiracy to commit any act or omission that would constitute grounds for conviction or liability under any law or statute described in subsections (1) - (5) above;

(7) Been found civilly liable under a state or federal antitrust statute for acts or omissions in connection with the submission of bids or proposals for a public or private contract;

(8) Been found in a final adjudicated decision to have violated the Commercial Nondiscrimination Policy under Title 19 of the State Finance and Procurement Article of the Annotated Code of Maryland with regard to a public or private contract; or

(9) Admitted in writing or under oath, during the course of an official investigation or other proceedings, acts or omissions that would constitute grounds for conviction or liability under any law or statute described in §§B and C and subsections D(1)—(8) above, except as follows (indicate reasons why the affirmations cannot be given, and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of the person(s) involved and their current positions and responsibilities with the business, and the status of any debarment):

D. AFFIRMATION REGARDING DEBARMENT

I FURTHER AFFIRM THAT: Neither I, nor to the best of my knowledge, information, and belief, the above business, or any of its officers, directors, partners, controlling stockholders, or any of its employees directly involved in the business's contracting activities, including obtaining or performing contracts with public bodies, has ever been suspended or debarred (including being issued a limited denial of participation) by any public entity, except as follows (list each debarment or suspension providing the dates of the suspension or debarment, the name of the public entity and the status of the proceedings, the name(s) of the person(s) involved and their current positions and responsibilities with the business, the grounds of the debarment or suspension, and the details of each person's involvement in any activity that formed the grounds of the debarment or suspension).

E. AFFIRMATION REGARDING DEBARMENT OF RELATED ENTITIES

I FURTHER AFFIRM THAT:

(1) The business was not established and it does not operate in a manner designed to evade the application of or defeat the purpose of debarment pursuant to Sections 16-101, et seq., of the State Finance and Procurement Article of the Annotated Code of Maryland; and
(2) The business is not a successor, assignee, subsidiary, or affiliate of a suspended or debarred business, except as follows (indicate reasons why the affirmations cannot be given without qualification):

F. SUB-CONTRACT AFFIRMATION

I FURTHER AFFIRM THAT: Neither I, nor to the best of my knowledge, information, and belief, the above business, has knowingly entered into a contract with a public body under which a person debarred or suspended under Title 16 of the State Finance and Procurement Article of the Annotated Code of Maryland will provide, directly or indirectly, supplies, services, architectural services, construction related services, leases of real property, or construction.

G. AFFIRMATION REGARDING COLLUSION

I FURTHER AFFIRM THAT: Neither I, nor to the best of my knowledge, information, and belief, the above business has:

(1) Agreed, conspired, connived, or colluded to produce a deceptive show of competition in the compilation of the accompanying bid or offer that is being submitted;

(2) In any manner, directly or indirectly, entered into any agreement of any kind to fix the bid price or price proposal of the bidder or offeror or of any competitor, or otherwise taken any action in restraint of free competitive bidding in connection with the contract for which the accompanying bid or offer is submitted.

H. CERTIFICATION OF TAX PAYMENT

I FURTHER AFFIRM THAT: Except as validly contested, the business has paid, or has arranged for payment of, all taxes due the State of Maryland and has filed all required returns and reports with the Comptroller of the Treasury, the State Department of Assessments and Taxation, and the Department of Labor, Licensing, and Regulation, as applicable, and will have paid all withholding taxes due the State of Maryland prior to final settlement.

I. CONTINGENT FEES

I FURTHER AFFIRM THAT: The business has not employed or retained any person, partnership, corporation, or other entity, other than a bona fide employee, bona fide agent, bona fide salesperson, or commercial selling agency working for the business, to solicit or secure the Contract, and that the business has not paid or agreed to pay any person, partnership, corporation, or other entity, other than a bona fide employee, bona fide agent, bona fide salesperson, or commercial selling agency, any fee or any other consideration contingent on making of the Contract.

J. CERTIFICATION REGARDING INVESTMENTS IN IRAN

(1) The undersigned bidder or offeror certifies that, in accordance with State Finance & Procurement Article, §17-705:

   (i) it is not identified on the list created by the Board of Public Works as a person engaging in investment activities in Iran as described in §17-702 of State Finance & Procurement; and

   (ii) it is not engaging in investment activities in Iran as described in State Finance & Procurement Article, §17-702.
(2) The undersigned bidder or offeror is unable to make the above certification regarding its investment activities in Iran due to the following activities:

________________________________________________________________________

________________________________________________________________________


________________________________________________________________________

K. ACKNOWLEDGEMENT

I ACKNOWLEDGE THAT: This Affidavit is to be furnished to the Procurement Officer and may be distributed to units of: (1) the State of Maryland; (2) counties or other subdivisions of the State of Maryland; (3) other states; and (4) the federal government. I further acknowledge that this Affidavit is subject to applicable laws of the United States and the State of Maryland, both criminal and civil, and that nothing in this Affidavit or any contract resulting from the submission of this bid or proposal shall be construed to supersede, amend, modify or waive, on behalf of the State of Maryland, or any unit of the State of Maryland having jurisdiction, the exercise of any statutory right or remedy conferred by the Constitution and the laws of Maryland with respect to any misrepresentation made or any violation of the obligations, terms and covenants undertaken by the above business with respect to (1) this Affidavit, (2) the contract, and (3) other Affidavits comprising part of the contract.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

Date: __________________________

By: ___________________________________

(Print Name of Authorized Representative and Affiant)

_____________________________________

(Signature of Authorized Representative and Affiant)

_____________________________________

(Title of Authorized Representative and Affiant)
EXHIBIT C
CONTRACT AFFIDAVIT

A. AUTHORIZED REPRESENTATIVE

I HEREBY AFFIRM THAT:
I am the ________________________________ (title) and the duly authorized representative of ________________________________ (business) and that I possess the legal authority to make this Affidavit on behalf of myself and the business for which I am acting.

B. CERTIFICATION OF CORPORATION REGISTRATION AND TAX PAYMENT OR QUALIFICATION WITH THE STATE DEPARTMENT OF ASSESSMENTS AND TAXATION

I FURTHER AFFIRM THAT: The business named above is a (X applicable items):

(1) Corporation        ☐ domestic (i.e., organized in Maryland) or ☐ foreign;
(2) Limited Liability Co. ☐ domestic or ☐ foreign;
(3) Partnership        ☐ domestic or ☐ foreign;
(4) Statutory Trust    ☐ domestic or ☐ foreign;
(5) Sole Proprietorship ☐

and is registered or qualified as required under Maryland Law

I further affirm that the above business is in good standing both in Maryland and (IF APPLICABLE) in the jurisdiction where it is presently organized, and has filed all of its annual reports, together with filing fees, with the Maryland State Department of Assessments and Taxation. The name and address of its resident agent (IF APPLICABLE) filed with the State Department of Assessments and Taxation is:

Name and Department ID Number: __________________________________________
Address: __________________________________________________________________

and that if it does business under a trade name, it has filed a certificate with the State Department of Assessments and Taxation that correctly identifies that true name and address of the principal or owner as:

Name and Department ID Number: __________________________________________
Address: __________________________________________________________________

C. FINANCIAL DISCLOSURE AFFIRMATION

I FURTHER AFFIRM THAT: I am aware of, and the above business will comply with, the provisions of Section 13-221 of the State Finance and Procurement Article of the Annotated Code of Maryland, which require that every business that enters into contracts, leases, or other agreements with the State of Maryland or its agencies during a calendar year under which the business is to receive in the aggregate $100,000 or more shall, within 30 days of the time when the aggregate value of the contracts, leases, or other agreements reaches $100,000, file with the Secretary of State of Maryland certain specified information to include disclosure of beneficial ownership of the business.
D. POLITICAL CONTRIBUTION DISCLOSURE AFFIRMATION

I FURTHER AFFIRM THAT: I am aware of, and the above business will comply with, Election Law Article, §§14-101 through 14-108, Annotated Code of Maryland, which requires that every person that enters into contracts, leases, or other agreements with the State of Maryland, including its agencies or a political subdivision of the State valued at $200,000 or more, shall file with the State Board of Elections a statement disclosing contributions in excess of $500 made during the reporting period to a candidate for elective office in any primary or general election.

E. DRUG AND ALCOHOL FREE WORKPLACE

I CERTIFY THAT:

(1) Terms defined in COMAR 21.11.08 shall have the same meanings when used in this certification.

(2) By submission of its bid or offer, the business, if other than an individual, certifies and agrees that, with respect to its employees to be employed under a contract resulting from this solicitation, the business shall:

(a) Maintain a workplace free of drug and alcohol abuse during the term of the contract;

(b) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of drugs, and the abuse of drugs or alcohol is prohibited in the business's workplace and specifying the actions that will be taken against employees for violation of these prohibitions;

(c) Prohibit its employees from working under the influence of drugs or alcohol;

(d) Not hire or assign to work on the contract anyone whom the business knows, or in the exercise of due diligence should know, currently abuses drugs or alcohol and is not actively engaged in a bona fide drug or alcohol abuse assistance or rehabilitation program;

(e) Promptly inform the appropriate law enforcement agency of every drug-related crime that occurs in its workplace if the business has observed the violation or otherwise has reliable information that a violation has occurred;

(f) Establish drug and alcohol abuse awareness programs to inform its employees about:

(i) The dangers of drug and alcohol abuse in the workplace;

(ii) The business's policy of maintaining a drug and alcohol free workplace;

(iii) Any available drug and alcohol counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees who abuse drugs and alcohol in the workplace;

(g) Provide all employees engaged in the performance of the contract with a copy of the statement required by §(2)(b), above;

(h) Notify its employees in the statement required by §(2)(b) above, that as a condition of continued employment on the contract, the employee shall:

(i) Abide by the terms of the statement; and

(ii) Notify the employer of any criminal drug or alcohol abuse conviction for an offense occurring in the workplace not later than 5 days after a conviction;

(i) Notify the procurement officer within 10 days after receiving notice under §(2)(h)(ii), above, or otherwise receiving actual notice of a conviction;

(j) Within 30 days after receiving notice under §(2)(h)(ii) above, or otherwise receiving actual notice of a conviction, impose either of the following sanctions or remedial measures on any employee who is convicted of a drug or alcohol abuse offense occurring in the workplace:
(i) Take appropriate personnel action against an employee, up to and including termination; or
(ii) Require an employee to satisfactorily participate in a bona fide drug or alcohol abuse assistance or rehabilitation program; and

(k) Make a good faith effort to maintain a drug and alcohol free workplace through implementation of §(2)(a) through (j), above.

(3) If the business is an individual, the individual shall certify and agree as set forth in §(4), below, that the individual shall not engage in the unlawful manufacture, distribution, dispensing, possession, or use of drugs or the abuse of drugs or alcohol in the performance of the contract.

(4) I acknowledge and agree that:

(a) The award of the contract is conditional upon compliance with COMAR 21.11.08 and this certification;

(b) The violation of the provisions of COMAR 21.11.08 or this certification shall be cause to suspend payments under, or terminate the contract for default under COMAR 21.07.01.11 or 21.07.03.15, as applicable; and

(c) The violation of the provisions of COMAR 21.11.08 or this certification in connection with the contract may, in the exercise of the discretion of the Board of Public Works, result in suspension and debarment of the business under COMAR 21.08.03.

F. CERTAIN AFFIRMATIONS VALID

I FURTHER AFFIRM THAT:

To the best of my knowledge, information, and belief, each of the affirmations, certifications, or acknowledgments contained in that certain Bid/Proposal Affidavit dated __________, 20____ and executed by me for the purpose of obtaining the contract to which this Exhibit is attached remains true and correct in all respects as if made as of the date of this Contract Affidavit and as if fully set forth herein.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

DATE: __________________________

BY: ____________________________

(Printed Name and Title of Authorized Representative and Affiant)

(Signature of Authorized Representative and Affiant)
EXHIBIT D
SAMPLE AGREEMENT

This Agreement made the _________ day of __________________________, Two Thousand and _____, by
and between _________________________, herein called "Contractor" and Towson University, herein called
"University." Witnesseth, that the Contractor and the University, for the consideration here mentioned agree as
follows:

Article 1. Scope of Contract - The Contractor shall furnish all materials and perform all of the work described in the
Contract Documents, and shall comply with all of the terms and conditions of the Contract Documents, all of which
are made a part hereof and are referred to herein as "the Contract."

Article 2. Contract Documents - The Contract between the parties is set forth in the Contract Documents which
consist of the following, listed in their order of precedence:

A. This Contract,
B. Towson University - Request for Proposal, for the Procurement of ____________________________,
   Towson University, RFP No. __________ including all attachments, exhibits, and addenda, and
   subsequent Purchase Order, and
C. Contractor's Proposal dated ______________, submitted in response to the RFP (hereinafter referred
to as the "Proposal").

In the event of a conflict between the terms and conditions of any of the Contract Documents, the controlling
terms and conditions shall be in the above listed order of precedence.

Article 3. Services - The Contractor's performance under this Contract shall be in accordance with the requirements
generally set forth in the RFP and specifically described in Section V., Specifications and as set forth in the
Contractor's Technical Proposal.

Article 4. Term of Contract – The term of the contract shall be one year from the date that the University provides
the Contractor with a Notice to Proceed. The University shall have the option to exercise four annual renewal
options, said options to be exercised at the sole discretion of the University. Should the University elect to renew
the contract, all prices, terms and conditions will remain in effect.

Article 5. Contract Price - The University shall pay the Contractors as follows:

   Total Project Cost $ ______________

Article 6. Payment of State Obligations - Contractor will be paid for services rendered in accordance with the terms
and conditions of the Contract Documents and upon submission of proper invoices submitted to the Towson
University, Accounts Payable Office. The Contractor's Federal Identification Number and the University's Purchase
Order number must be included on all invoices. Towson University is exempt from the payment of taxes and shall
provide the Contractor with a copy of tax-exempt certificate upon request.
Electronic funds will be used by the State to pay Contractor for this Contract and any other State payments due Contractor unless the State Comptroller’s Office grants Contractor an exemption.

Electronic funds will be used by the State to pay Contractor for this Contract and any other State payments due Contractor unless the State Comptroller’s Office grants Contractor an exemption.

Article 7. Limitation of Liability - The University shall not be liable for any indirect, special or consequential damages, such as loss of anticipated profits or other economic loss in connection with or arising out of the services provided in the Contract.

Article 8. Assignment - University may assign this Contract with Contractor’s written consent, which shall not be unreasonably withheld.

Article 9. Entire Agreement - This Contract, including all Contract Documents, constitutes the entire agreement between the University and the Contractor. No waiver, modification or amendment of any of the terms or conditions hereof shall be effective unless set forth in writing and duly signed by the Contractor and the University.

IN WITNESS WHEREOF, the parties have executed this Contract by their duly authorized officer, agents or official on the day and year first above written.

CONTRACTOR

Witness

Corporate Officer or Authorized Agent

Date

Printed Name and Title

AFFIX
CORPORATE
SEAL

TOWSON UNIVERSITY

Witness

Authorized Agent

Date

Printed Name and Title
COMPANY NAME: ________________________________________________________

DATE OF INCORPORATION: _________  STATE OF INCORPORATION: ____________

TYPE OF WORK PERFORMED: ______________________________________________

_______________________________________________________________________

NUMBER OF YEARS IN BUSINESS: __________________________________________

OTHER OR FORMER NAMES UNDER WHICH YOUR ORGANIZATION HAS OPERATED:

_______________________________________________________________________

TYPE OR ORGANIZATION: (I.E., CORP., PARTNERSHIP, INDIVIDUAL, JOINT VENTURE, OTHER):

_______________________________________________________________________

NAME OF PRINCIPAL(S) AND TITLE(S): ______________________________________

_______________________________________________________________________

_______________________________________________________________________

BRIEF HISTORY OF COMPANY: ____________________________________________

_______________________________________________________________________

_______________________________________________________________________

TOTAL NUMBER OF EMPLOYEES: ________________________________

NUMBER OF FIELD EMPLOYEES (Excluding Supervisory): _______________________

NUMBER OF FIELD SUPERVISORY PERSONNEL: ________________________________

NUMBER OF OFFICE PERSONNEL (Excluding Supervisory): _______________________

NUMBER OF OFFICE SUPERVISORY PERSONNEL: ________________________________

BONDING CO.: _______________  BONDING CAPACITY: _______________
EXHIBIT G
FIRM EXPERIENCE

Duplicate as necessary to provide all required experience.

PROPOSER: ________________________________

PROJECT NAME: ________________________________

PROJECT DOLLAR SIZE: __________________________

START DATE: ________________________________

COMPLETION DATE: ________________________________

CLIENT/CUSTOMER: ________________________________

ADDRESS: ________________________________

CONTACT PERSON: ________________________________

TELEPHONE NUMBER: ________________________________

FAX NUMBER: ________________________________

EMAIL: ________________________________

PROJECT MANAGER: ________________________________

BRIEF, BUT DETAILED DESCRIPTION OF THE PROJECT:

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

SIMILARITIES BETWEEN THIS PROJECT AND TU PROJECT:

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________

________________________________________________________________________________________________________________________________________
EXHIBIT H
BID BOND

Bond No. _______________

KNOW ALL MEN BY THESE PRESENTS, that we, ____________________________ (Bidding Company) and ____________________________ (Bonding Company) as Principal, hereinafter called the Principal, and ____________________________ (Bonding Company) as Surety, hereinafter called the Surety, are held and firmly bound unto the State of Maryland, hereinafter called “State,” for the sum of ____________________________ Dollars (or $ ____________________________), for the payment of which sum, the said Principal and the said Surety bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for ____________________________

(Identify project by number and brief description)

NOW, THEREFORE, if the Principal, upon acceptance by the State of its bid identified above, within the period specified therein for acceptance (ninety (90) days, if no period is specified), shall execute such further contractual documents, if any, and give such bond(s) as may be required by the terms of the bid as accepted within the time specified (ten (10) days if no period is specified) after receipt of the forms, or in the event of failure so to execute such further contractual documents and give such bonds, if the Principal shall pay the State the difference not to exceed the penalty hereof between the amount specified in the Principal’s bid and such larger amount for which the State may in good faith contract with another party to perform the work covered by said bid, then the above obligation shall be void and of no effect.

The Surety executing this instrument hereby agrees that its obligation shall not be impaired by any extension(s) of the time for acceptance of the bid that the Principal may grant to the State, notice of which extension(s) to the Surety being hereby waived; provided that such waiver of notice shall apply only with respect to extensions aggregating not more than ninety (90) calendar days in addition to the period originally allowed for acceptance of the bid.

In Presence of:
Witness

______________________________ as to ____________________________

In Presence of:
Witness

______________________________ as to ____________________________

______________________________ as to ____________________________

______________________________ as to ____________________________

Attest:

Corporate Principal

______________________________

(Name of Corporation)
CORPORATE
Secretary

Attest:

CORPORATE

Bonding Agents Name ______________________
Agent’s Address _______________________

Approved as to form and legal sufficiency
this _____ day of _______________________, 20____

Associate University Counsel

____________________________
AFFIX

____________________________
President

____________________________
(Surety)

____________________________
AFFIX

____________________________
Attorney-in-fact

____________________________
SEAL

____________________________
President

____________________________
SEAL

____________________________
(Surety)
EXHIBIT I
PERFORMANCE BOND

Principal

Business Address of Principal

Surety

Obligee

STATE OF MARYLAND
By and through the following Administration
TOWSON UNIVERSITY

Penal Sum of Bond (express in words and figures)

Description of Contract

Date of Contract, 20

Date Bond Executed, 20

Contract Number

KNOW ALL MEN BY THESE PRESENTS, That we, the Principal named above and Surety named above, being authorized to do business in Maryland, and having business addresses as shown above, are held and firmly bound unto the Obligee named above in the Penal Sum of this Performance Bond stated above, for the payment of which Penal Sum we bind ourselves, our heirs, executors, administrators, personal representatives, successors, and assigns, jointly and severally, firmly by these presents. However, where Surety is composed of corporations acting as co-sureties, we, the co-sureties, bind ourselves, our successors and assigns, in such Penal Sum jointly and severally as well as severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each co-surety binds itself, jointly and severally with the Principal, for the payment of such sum as appears above its name below, but if no limit of liability is indicated, the limit of such liability shall be the full amount of Penal Sum.

WHEREAS, Principal has entered into or will enter into a contract with the State of Maryland, by and through the Administration named above acting for the State of Maryland, which contract is described and dated as shown above, and incorporated herein by reference. The contract and all items incorporated into the contract, together with any and all changes, extensions of time, alterations, modifications, or additions to the contract or to the work to be performed thereunder or to the Plans, Specifications, and Special Provisions, or any of them, or to any other items incorporated into the contract shall hereinafter be referred to as “the Contract.”

WHEREAS, it is one of the conditions precedent to the final award of the Contract that these presents be executed.

NOW, THEREFORE, during the original term of said Contract, during any extensions thereto that may be granted by the Administration, and during the guarantee and warranty period, if any, required under the Contract, unless otherwise stated therein, this Performance Bond shall remain in full force and effect unless and until the following terms and conditions are met:

1. Principal shall well and truly perform the Contract; and
2. Principal and Surety shall comply with the terms and conditions contained in this Performance Bond.

Whenever Principal shall be declared by the Administration to be in default under the Contract, the Surety may, within 15 days after notice of default from the Administration, notify the Administration of its election to either promptly proceed to remedy the default or promptly proceed to complete the contract in accordance with and subject to its terms and conditions. In the event the Surety does not elect to exercise either of the above stated options, then the Administration thereupon shall have the remaining contract work completed, Surety to remain liable hereunder for all expenses of completion up to but not exceeding the penal sum stated above.

The Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligations on this Performance Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

This Performance Bond shall be governed by and construed in accordance with the laws of the State of Maryland and any reference herein to Principal or Surety in the singular shall include all entities in the plural who or which are signatories under the Principal or Surety heading below.

IN WITNESS WHEREOF, Principal and Surety have set their hands and seals to this Performance Bond. If any individual is a signatory under the Principal heading below, then each such individual has signed below on his or her own behalf, has set forth below the name of
the firm, if any, in whose name he or she is doing business, and has set forth below his or her title as a sole proprietor. If any partnership or joint venture is a signatory under the Principal heading below, then all members of each such partnership or joint venture have signed below, each member has set forth below the name of the partnership or joint venture, and each member has set forth below his or her title as a general partner, limited partner, or member of joint venture, whichever is applicable. If any corporation is a signatory under the Principal or Surety heading below, then each such corporation has caused the following: the corporation’s name to be set forth below, a duly authorized representative of the corporation to affix below the corporation’s seal and to attach hereto a notarized corporate resolution or power of attorney authorizing such action, and each such duly authorized representative to sign below and to set forth below his or her title as a representative of the corporation. If any individual acts as a witness to any signature below, then each such individual has signed below and has set forth below his or her title as a witness. All of the above has been done as of the Date of Bond shown above.

In Presence of:
Witness

____________________ as to __________________________ (SEAL)

In Presence of:
Witness

Co-Partnership Principal

________________________ as to __________________________ (SEAL)

________________________ as to __________________________ (SEAL)

________________________ as to __________________________ (SEAL)

Corporate Principal

________________________ as to __________________________ (SEAL)

Attest:
Name of Corporation

________________________________

By: __________________________ CORPORATE SEAL

Corporate Secretary

President with Title

________________________

Surety

________________________________

By: __________________________ CORPORATE SEAL

Attest:
Title: __________________________

Signature

Bonding Agent’s Name: __________________________

Business Address of Surety

Agent’s Address: __________________________

Approved as to legal form and sufficiency this _____ day of ________, 20____

__________________________________________

Director of Procurement
EXHIBIT J
PAYMENT BOND

Principal ________________________________________________

Business Address of Principal ____________________________________________

Surety _____________________________________________

Obligee _____________________________________________

a corporation of the State of ____________________________

and authorized to do business in the State of Maryland

STATE OF MARYLAND

By and through the following Administration

TOWSON UNIVERSITY

Penal Sum of Bond (express in words and figures)

Description of Contract

Date of Contract _______________________________, 20__

Date Bond Executed _______________________________, 20__

Contract Number __________________________________________________________________________________________

KNOW ALL MEN BY THESE PRESENTS, That we, the Principal named above and Surety named above, being authorized to do business in Maryland, and having business addresses as shown above, are held and firmly bound unto the Obligee named above, for the use and benefit of claimants as hereinafter defined, in the Penal Sum of this Payment Bond stated above, for the payment of which Penal Sum we bind ourselves, our heirs, executors, administrators, personal representatives, successors, and assigns, jointly and severally, firmly by these presents. However, where Surety is composed of corporations acting as co-sureties, we, the co-sureties, bind ourselves, our successors and assigns, in such Penal Sum jointly and severally as well as severally only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes each co-surety binds itself, jointly and severally with the Principal, for the payment of such sum as appears above its name below, but if no limit of liability is indicated, the limit of such liability shall be the full amount of the Penal Sum.

WHEREAS, Principal has entered into or will enter into a contract with the State, by and through the Administration named above acting for the State of Maryland, which contract is described and dated as shown above, and incorporated herein by reference. The contract and all items incorporated into the contract, together with any and all changes, extensions of time, alterations, modifications, or additions to the contract or to the work to be performed thereunder or to the Plans, Specifications, and Special Provisions, or any of them, or to any other items incorporated into the contract shall hereinafter be referred to as “the Contract.”

WHEREAS, it is one of the conditions precedent to the final award of the Contract that these presents be executed.

NOW, THEREFORE, the condition of this obligation is such that if the Principal shall promptly make payment to all claimants as hereinafter defined, for all labor and materials furnished, supplied and reasonably required for use in the performance of the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject to the following conditions:

1. A claimant is defined to be any and all of those persons supplying labor and materials (including lessors of the equipment to the extent of the fair market value thereof) to the Principal or its subcontractors and subcontractors in the prosecution of the work provided for in the Contract, entitled to the protection provided by Section 9-113 of the Real Property Article of the Annotated Code of Maryland, as from time to time amended.

2. The above named Principal and Surety hereby jointly and severally agree with the Obligee that every claimant as herein defined, who has not been paid in full may, pursuant to and when in compliance with the provisions of the aforesaid Section 9-113, sue on this Bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant and have execution thereon. The Obligee shall not be liable for the payment of any costs or expenses of any such suit.
The Surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or the Specifications accompanying the same shall in any way affect its obligations on this Payment Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the Specifications.

This Payment Bond shall be governed by and construed in accordance with the laws of the State of Maryland and any reference herein to the Principal or Surety in the singular shall include all entities in the plural who or which are signatories under the Principal or Surety heading below.

IN WITNESS WHEREOF, Principal and Surety have set their hands and seals to this Payment Bond. If any individual is a signatory under the Principal heading below, then each such individual has signed below on his or her own behalf, has set forth below the name of the firm, if any, in whose name he or she is doing business, and has set forth below his or her title as a sole proprietor. If any partnership or joint venture is a signatory under the Principal heading below, then all members of each such partnership or joint venture have signed below, each member has set forth below the name of the partnership or joint venture, and each member has set forth below his or her title as a general partner, limited partner, or member of joint venture, whichever is applicable. If any corporation is a signatory under the Principal or Surety heading below, then each such corporation has caused the following: the corporation's name to be set forth below, a duly authorized representative of the corporation to affix below the corporation's seal and to attach hereto a notarized corporate resolution or power of attorney authorizing such action, and each such duly authorized representative to sign below and to set forth below his or her title as a representative of the corporation. If any individual acts as a witness to any signature below, then each such individual has signed below and has set forth below his or her title as a witness. All of the above has been done as of the Date of Bond shown above.

In Presence of:
Witness
_________ as to
_________ (SEAL)

In Presence of:
Witness
_________ as to
_________ (SEAL)

Co-Partnership Principal
Name of Co-Partnership
_________ as to
_________ (SEAL)
_________ as to
_________ (SEAL)
_________ as to
_________ (SEAL)

Corporate Principal
Name of Corporation
_________ as to
AFFIX CORPORATE SEAL
President with Title
By: ________________

Surety
Title:________________
AFFIX CORPORATE SEAL
By:______________

Attest:
Corporate Secretary
By: ________________

Signature
Title:________________

Bonding Agent's Name:
Business Address of Surety
Agent's Address:________________

Approved as to legal form and sufficiency this _____ day of __________, 20____

Director of Procurement
EXHIBIT K
ADDENDA ACKNOWLEDGMENT

NAME OF BIDDER: ____________________________________________

SOLICITATION NUMBER: ________________________________

PROJECT TITLE: ____________________________________________

DUE DATE: ________________________________________________

ACKNOWLEDGMENT

I hereby acknowledge receipt of the following addenda which have been issued regarding the above referenced solicitation:

Addendum #1, issue date ________________
Addendum #2, issue date ________________
Addendum #3, issue date ________________
Addendum #4, issue date ________________
Addendum #5, issue date ________________
Addendum #6, issue date ________________

__________________________________________  ____________________________________________
Signature                                      Printed Name

__________________________________________
Title

__________________________________________  ____________________________________________
Date                                      Company
EXHIBIT L
KEY PERSONNEL FORM

SOLICITATION/CONTRACT TITLE: ______________________________

SOLICITATION/CONTRACT NUMBER: ____________________________

1. BIDDER/OFFEROR NAME: ___________________________________

2. KEY PERSONNEL NAME: _____________________________________

3. POSITION TO BE ASSIGNED: Check applicable
   _____ Project Manager   _____ Other. Title __________________________
   _____ Field Superintendent

4. EDUCATIONAL BACKGROUND:

   Institution                Degree/Diploma/ Certification               Major (if any)    Date of Degree
                             ______________________________________________________________
                             ______________________________________________________________
                             ______________________________________________________________
                             ______________________________________________________________

5. EMPLOYMENT HISTORY. If key personnel have more than three (3) previous employers, provide complete employment history via supplemental page(s) attached to this form.

5.1 CURRENT EMPLOYER: _________________________________

   DATES OF EMPLOYMENT: _________________________________

   POSITION(S) HELD           DURATION BY DATE
                             ______________________________________________
                             ______________________________________________
                             ______________________________________________

5.2 PRIOR EMPLOYER: _________________________________

   DATES OF EMPLOYMENT: _________________________________

   POSITION(S) HELD           DURATION BY DATE
                             ______________________________________________
                             ______________________________________________

NOTE: If space provided is insufficient, attach additional page(s) and indicate “See attached.”
**EXHIBIT L - KEY PERSONNEL FORM**

5.3 PRIOR EMPLOYER: ________________________________________________

<table>
<thead>
<tr>
<th>DATES OF EMPLOYMENT:</th>
<th>POSITION(S) HELD</th>
<th>DURATION BY DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. **PROJECT REFERENCES.** Furnish reference data for project owners/clients for specific projects to which key personnel were assigned. References from projects listed on Attachment A are preferred.

6.1 CONTACT PERSON: __________________________ TELEPHONE #: ____________

<table>
<thead>
<tr>
<th>COMPANY NAME:</th>
<th>EMAIL ADDRESS:</th>
<th>DESCRIPTION OF CONTRACT/PROJECT:</th>
</tr>
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<tbody>
<tr>
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</table>

6.2 CONTACT PERSON: __________________________ TELEPHONE #: ____________

<table>
<thead>
<tr>
<th>COMPANY NAME:</th>
<th>EMAIL ADDRESS:</th>
<th>DESCRIPTION OF CONTRACT/PROJECT:</th>
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</tbody>
</table>

6.3 CONTACT PERSON: __________________________ TELEPHONE #: ____________

<table>
<thead>
<tr>
<th>COMPANY NAME:</th>
<th>EMAIL ADDRESS:</th>
<th>DESCRIPTION OF CONTRACT/PROJECT DONE:</th>
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</tbody>
</table>

7. **ACHIEVEMENTS/OTHER NOTATIONS** (Optional):

________________________________________________________________________

________________________________________________________________________

8. **SIMILAR PROJECT/CONTRACT EXPERIENCE.** Complete a separate *Attachment A to Key Personnel Form* for all key personnel proposed. At a minimum, include Project Manager and, if applicable, Field Superintendent(s). **List at least three (3) prior projects for each.**

**NOTE:** If space provided is insufficient, attach additional page(s) and indicate “See attached.”
8. SIMILAR PROJECT/CONTRACT EXPERIENCE

KEY PERSONNEL NAME: ________________________________     BIDDER OFFEROR NAME: ________________________________

ROLE TO BE ASSIGNED (check one): PROJECT MANAGER _____ FIELD SUPERINTENDENT _____ OTHER _____ Title: ________________________________

<table>
<thead>
<tr>
<th>PROJECT NAME/LOCATION</th>
<th>PROJECT DESCRIPTION</th>
<th>KEY PERSONNEL ROLE</th>
<th>PROJECT VALUE</th>
<th>START AND COMPLETION DATES (MM/YY-MM/YY)</th>
<th>OWNER/CLIENT CONTACT/TELEPHONE #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Project Mgr. Field Sup., etc.</td>
<td>Must be a minimum of:</td>
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</tr>
</tbody>
</table>

Note: List a minimum of three (3) projects for all key personnel proposed.
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SECTION 1 - DEFINITIONS AND RESPONSIBILITIES

1.01 DEFINITIONS

A. “Contract.” The written agreement executed between the University and Contractor, covering performance of the work and furnishing of labor, services, equipment, and materials, and by which Contractor is bound to perform the work and furnish the labor, services, equipment and materials, and by which the University is obligated to compensate Contractor at the established and accepted rate or price. The contract documents shall include the proposal, contract forms and bonds, general conditions, specifications, addenda, supplemental specifications, all special provisions, all technical provisions, all plans, and notice to proceed; also any written change orders and supplemental agreements that are required to complete the work in an acceptable manner, including authorized extensions thereof.

B. “Contractor.” The person or organization having a direct contractual relationship with the University for execution of the Work. If Contractor hereunder is comprised of more than one legal entity, each such entity shall be jointly and severally liable under the Contract.

C. “Contract Time and Completion Date.” The number of working or calendar days shown in the proposal indicating the time allowed for the completion of the work contemplated in the contract. In case a calendar date of completion is shown in the proposal, in lieu of the number of working or calendar days, such work shall be completed on or before that calendar date.

D. “Day.” Means calendar day unless otherwise designated.

E. “Towson University” or “the University.” Refers to Towson University, an agency and instrumentality of the State of Maryland. In particular, the University refers to the campus or administrative unit of the University or its authorized representative that issues information relative to a particular transaction.

F. “Notice to Proceed.” A written notice to Contractor of the date on or before which it shall begin the prosecution of the work to be done under the Contract.

G. “Procurement Officer.” The person identified at the work initiation conference and designated by the University to make decisions with respect to administration of the work.

H. “Repair.” Where used in the Contract documents repair shall mean to restore after injury, deterioration, or wear; to mend, to renovate by such means as appropriate, and to supply such materials and labor as necessary to render the item to be repaired sound, solid, true, plumb, square, even, smooth and fully serviceable. Upon completion, such repair must be, unless otherwise stated, rendered to such condition as to present a first-class finished work, or in instances where the repaired item serves as a base for additional finish, the repaired work must be such as to permit a first-class finish, to be applied without extra cost to the University. When the word “repair” is used in connection with machinery or mechanical equipment it shall mean, in addition to the above, rendering the equipment completely serviceable and efficient, ready for normal use for which it was intended originally.
I. "Owner" or "State" or "University." The State of Maryland acts only through its Board of Public Works. No action or representation is binding upon the State or Towson University unless it is made by, ratified by, or delegated by the Board of Public Works. Actions or representations made by the University staff do not bind the State or the University unless so provided in law.

J. "Subcontractor." As employed herein includes only those having a direct contract with the Contractor. It includes one who furnishes material worked to a special design according to the plans and specifications for the Work, but excludes one who merely furnishes material not so worked.

K. "Supplemental Agreement." A written agreement covering added or changed work which is beyond the scope of the contract and the changes clause. A supplemental agreement becomes a part of the contract when approved and properly executed by all parties to the contract.

L. "Surety." The corporate body bound with and for Contractor for the full and complete performance of the Contract and payment of all debts pertaining to the Work.

M. "Work." Work shall be understood to mean the furnishing of all labor, materials, equipment, services, utilities and other incidentals necessary to successful completion of the project and all the duties and obligations imposed upon Contractor by the Contract.

N. "Written Notice." Shall be deemed to have been duly served if delivered in person to the individual or to the member of the firm or to an office of the corporation to whom it is intended, or if delivered to or sent by registered mail, to the last business address known to him who gives notice.

1.02 OWNER RESPONSIBILITIES

A. To the best of its abilities, the University will provide all relevant information relating to the project’s buildings, structures, and their nearby utility infrastructure, including underground utilities. This information is not guaranteed to be accurate, however, and must be field verified by the Contractor through inspection, investigation, utility locating, etc. MISS UTILITY will not locate underground utilities on University property.

B. Information or services under the Owner's control shall be furnished by the University with reasonable promptness to avoid delay in the orderly progress of the Work.

1.03 CONTRACTOR RESPONSIBILITIES

A. Contractor shall supervise and direct the work using his best skill and attention, and shall be solely responsible for all construction means, methods, techniques, sequences, and procedures and for coordinating all portions of the Work under the Contract.

B. Contractor shall be responsible to the University for the acts and omissions of Contractor employees, subcontractors and their agents and employees, and other persons performing any of the Work under the Contract.
C. Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents by inspections, tests, or approvals required or performed by persons other than Contractor.

D. Contractor shall confine operations at the site to areas permitted by law, ordinances, permits, and the Contract Documents, and shall not unreasonably encumber the site with any materials or equipment.

E. Contractor shall design and coordinate its installation with sensitivity to aesthetics, particularly where exterior systems or components must be installed in a prominent location. The University has the right to reject or amend intended installations that are not considered within the intent of this guidance.

F. Cutting and Patching of Work

1. Contractor shall be responsible for all cutting, fitting, or patching that may be required to complete the Work or to make its several parts fit together properly in a workmanlike manner. Contractor shall clearly show on his installation drawings the locations proposed to be cut, penetrated, or otherwise altered, and provide details as to their final closure or condition.

2. Contractor shall not damage or endanger any portion of the Work or the work of the University or any separate contractors by cutting, patching or otherwise altering any work or by excavation. Contractor shall not cut or otherwise alter the work of the University or any separate contractor except with the written consent of the University and of such separate contractor. Contractor shall not unreasonably withhold from the University or any separate contractor its consent to cutting or otherwise altering the Work.

G. Indemnification

1. To the fullest extent permitted by law, Contractor shall indemnify, defend and hold harmless the University, the State of Maryland, Baltimore County, (if requested by the University), and their agents and employees from and against all claims, damages, losses, and expenses, including but not limited to attorney's fees, arising out of or resulting from the performance of the Work, provided that any such claim, damage, or loss or expense: (1) is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself) including the loss of use resulting therefrom, and (2) is caused in whole or in part by any act or omission of Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any one of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise exist as to any party or person described in this paragraph.

2. In any and all claims against the University or the State of Maryland or any of their agents or employees by any employee of Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under this paragraph shall not be limited in any way by any limitation on the amount or
type of damages, compensation, or benefits payable by or for Contractor or any subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

H. Security

1. Doors to the work areas and/or buildings shall be kept locked before, during and after normal work hours, except as necessary to provide reasonable access to the Work.

2. Contractor will provide, when necessary, temporary closures at door, window, and louver openings to secure the area and building from theft, damage, and weather.

3. Contractor shall be responsible for the security of the work area, and security deficiencies in the work area shall be immediately corrected as required by the University.

4. The TU Project Manager may, at his/her discretion, issue keys or access cards to Contractor for the duration of the job or require Contractor to sign out keys/cards at Facilities Management's Work Control Office on a daily basis. Contractor must request access to other areas through the TU Project Manager. At closeout, Contractor must return all keys or access cards to the TU Project Manager. Contractor will be held responsible for all expenses related to the replacement of lost keys and all lock cylinders that can be opened with lost keys.

SECTION 2 - CONTRACT DOCUMENTS

2.01 CONTRACT DOCUMENTS

A. The Contract Documents are complementary unless specified otherwise in the solicitation notice; that which is called for by any one document shall be as binding as if called for by all.

1. Intent of the documents is to include all work necessary for proper completion of the project, ready for continual efficient operation. It is not intended, however, to include any work not properly inferable.

2. Clarification. Contractor shall obtain clarification of all questions as to intent of the Contract Documents, or any conflict between two or more items in the Contract Documents. If Contractor fails to obtain such clarification, University may direct that the Work proceed by any method indicated, specified, or required by the Contract Documents in the interest of maintaining the best construction practice, and such direction shall not constitute the basis of Contractor claims for extra costs.

3. Jargon. Work described in words that have a well-known technical or trade meaning shall be held to refer to such recognized standard use.
B. **University-Provided Drawings.** All University-provided drawings are given for general information only. These drawings reflect the as-built conditions of the buildings/structure and the campus infrastructure to the best of the University's knowledge. The University cannot guarantee the accuracy of this information. Contractor shall inspect, investigate, and verify all field conditions prior to submission of its proposal.

C. **Contractor Drawings.** Contractor shall do no work without proper drawings and/or instructions that have been approved by the University. Drawings in general shall be drawn to scale and symbols used to indicate materials and architectural, structural, mechanical, and electrical requirements. Contractor shall keep on the job site a complete set of all drawings, specifications, shop drawings, schedules, etc., in good order and available to the University.

D. **Dimensions.** Contractor shall carefully check all dimensions prior to execution of the particular work affected and, if inaccuracies or discrepancies are found, consult the University prior to any construction or demolition. Dimensions for items to be fitted into constructed conditions at the job will be taken at the job and will be the responsibility of Contractor. The obvious intent of the documents, and obvious requirements dictated by conditions existing or being constructed, supersedes dimensions or notes that may be in conflict therewith. Whenever a stock size manufactured item or piece of equipment is specified by its normal size, it is Contractor's responsibility to determine the actual space requirements for setting or entrance to the setting space. No extra will be allowed by reason of work requiring adjustments in order to accommodate a particular item of equipment.

### 2.02 SHOP DRAWINGS

A. Contractor shall submit for approval shop drawings, including setting drawings, and schedules as required by the University for the work of the various trades. These drawings shall be prepared in conformity with the best practice and standards for the trade concerned, with due regard for speed and economy of fabrication and erection.

B. All shop drawings must show the name of the project and the University contract number.

C. **Size of Drawings.** All shop drawings and details submitted for approval shall be printed on 24” x 36” drawing sheets or larger. Shop detail supplied on letter size (8 1/2” x 11”) sheets are acceptable for schedules and small details. An electronic copy is also required.

D. **Items For Which Shop Drawings Will Be Required.** Shop drawings are required for all items specifically fabricated for the Work, or when assembly of several items is required for a working unit. They must also be provided showing all points of connection, fastening, anchorage, cutting, penetrating, altering, etc. of any existing surfaces.

E. **Copies Required.** Contractor shall supply two (2) paper copies for the University’s Office of Facilities Management, in addition to such copies as Contractor may desire to be returned for its own use. An electronic copy shall also be submitted.
F. **Examination and Approval.** The University will examine shop drawings with reasonable promptness, noting desired corrections or granting approval or rejecting them.

G. **Field Dimensions and Conditions.** Contractor is solely responsible for the check of dimensions or existing conditions in the field.

H. **Resubmission.** When the University notes corrections or rejects shop drawings, Contractor shall resubmit with corrective changes.

**SECTION 3 - SCOPE OF WORK**

3.01 **INTENT OF THE CONTRACT DOCUMENTS**

It is the intent of the Contract Documents to show all of the work necessary to complete the project.

3.02 **GENERAL CONDITIONS CONTROLLING**

In event of a conflict between these General Conditions and any other provision of the Contract Documents, these General Conditions shall prevail unless such other provision expressly provides to the contrary.

3.03 **DIFFERING SITE CONDITIONS**

A. Contractor shall promptly, and before such conditions are disturbed, notify the Procurement Officer in writing of: (1) Subsurface or latent physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this contract. The Procurement Officer shall promptly investigate the conditions, and if he finds that such conditions materially differ and cause an increase or decrease in the cost of, or the time required for, performance of any part of the Work under this Contract, whether or not changed as a result of such conditions, an equitable adjustment shall be made and the contract modified in writing accordingly.

B. No claim by Contractor under this clause shall be allowed unless Contractor has given the notice required in A. above, provided, however, the time prescribed therefore may be extended by the University.

3.04 **SITE INVESTIGATION**

Contractor acknowledges that it has investigated and satisfied itself as to the conditions affecting the Work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, river stages, tides or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment, and facilities needed preliminary to and during prosecution of the work. Contractor further acknowledges that it has satisfied itself as to the character, quality and quantity of surface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the University, as well as from information...
presented by the drawings and specifications made a part of this contract. Any failure by Contractor to acquaint itself with the available information will not relieve it of responsibility for estimating properly the difficulty of cost of successfully performing this work. The University assumes no responsibility for any conclusions or interpretations made by Contractor on the basis of the information made available by the University.

3.05 CONDITIONS AFFECTING THE WORK

Contractor shall be responsible for taking steps reasonably necessary to ascertain the nature and location of the work or the cost thereof. Any failure by Contractor to do so will not relieve it of responsibility for successfully performing the work without additional expense to the University. Contractor agrees not to place any credence in any understanding or representation concerning conditions made by any University employee or agent prior to the execution of this contract, unless such understanding or representation is expressly stated in the contract.

3.06 CHANGES IN THE WORK [Intentionally omitted; see Exhibit A-2, Section 20]

SECTION 4 - CONTROL OF THE WORK

4.01 CONFORMITY WITH CONTRACT REQUIREMENTS

All work performed and all materials furnished shall be in conformity with the contract requirements.

4.02 ADJACENT WORK

A. The University shall have the right, at any time, to contract for and/or perform other work on, near, over, or under the work covered by this contract. In addition, other work may be performed under the jurisdiction of another state agency. Contractor shall cooperate fully with such other contractors and carefully fit its own work to such other work as may be directed by the University.

B. Contractor agrees that in event of dispute as to cooperation or coordination with adjacent contractors, the decision of the University will be binding. Contractor agrees to make no claims against the University or the State of Maryland for any inconvenience, delay, or loss attributable to the presence and operations of other contractors.

4.03 CONTROL BY THE CONTRACTOR

Contractor shall constantly maintain efficient supervision of the Work, using its best skill and coordinating ability. It shall carefully study and compare all drawings, specifications, and other instructions, and check them against conditions existing or being constructed on the project, and at once report any error, inconsistency, or omission discovered.

4.04 COOPERATION WITH UTILITIES

A. It is understood and agreed that Contractor has considered in its price all of the permanent and temporary utility appurtenances in their present or relocated
positions, and that no additional compensation will be allowed for normal delays, inconvenience, or damage sustained by him due to any interference, from the said utility appurtenances, the operation of moving them, or the making of new connections thereto if required by the contract documents.

B. Contractor shall be responsible for notifying all affected utility companies prior to performing any work on their utilities, and shall cooperate with them in achieving the desired results. Contractor shall be the responsible for all damage to utility facilities caused by Contractor's operations.

C. At points where Contractor's operations are adjacent to properties of railway, telegraph, telephone, water, and power companies, or are adjacent to other property, damage to which might result in expense, loss, or inconvenience, work shall not be commenced until Contractor makes all arrangements necessary for the protection thereof.

D. Contractor shall cooperate with owners of any underground or overhead utility lines in removal and rearrangement operations, so that these operations may progress in a reasonable manner, duplication or rearrangement is minimized, and services rendered by those parties are not unnecessarily interrupted.

E. In the event of interruption to utility services as a result of accidental breakage, or as a result of utility lines being exposed or unsupported, Contractor shall promptly notify the proper authority, and shall cooperate with said authority in restoration of service. No work shall be undertaken around fire hydrants until provisions for continued service are approved by the local fire authority.

F. Utility outages shall be kept to a minimum, and will be permitted only with the written approval of OFM. All requests for outages shall include identification of all areas to be affected by the proposed outage, and shall be made not less than 48 hours in advance of the need.

G. Contractor may use sanitary facilities located near the project site, if available. Should a nuisance in or an abuse of University facilities occur, and continue after notice from the University, then access to University facilities will be withdrawn, and Contractor shall provide its own facilities. Contractor shall keep all such facilities in clean and sanitary condition throughout the period of use, and repaint such facilities at the completion of the work, if required, at no cost to the University.

4.05 AUTHORITY AND DUTIES OF UNIVERSITY INSPECTORS

A. University inspectors are authorized to inspect all work done and all material furnished. Such inspections may extend to all or any part of the Work and to the preparation, fabrication, or manufacture of the materials to be used. The inspector is not authorized to revoke, alter, or waive any requirements of the contract, nor to approve or accept any portion of the complete project. He is authorized to call to Contractor's attention any failure of the work or materials to conform to the Contract. He is authorized to reject materials or suspend the work until any questions or issues are resolved. Inspectors shall perform their duties at such times and in such times and in such manner as will not unnecessarily impede progress on the Contract.
B. Inspector shall in no case act as foreman, or perform other duties for Contractor, nor interfere with management of the work by Contractor.

C. Any advice the inspector may give Contractor shall not be construed as binding the University in any way, or releasing Contractor from fulfilling the terms of the Contract. The duty of the inspector is to observe progress of the Work and report any deviations from the requirements of the Contract Documents; however, should the inspector fail to report any such deviation from the Contract requirements, Contractor is not released from its obligation to fulfill all terms of the Contract.

D. Where there is disagreement between Contractor and the inspector, the inspector will immediately direct the University's attention to the issues of disagreement, and if Contractor still refuses to make corrections, comply, or suspend work, the University will prepare and deliver in writing to Contractor a written order suspending the work. As soon as the inspector is advised of delivery of the shutdown order, the inspector shall immediately leave the site, and any work performed during the inspector's absence will not be accepted or paid for, and may be required to be removed and disposed of at Contractor expense.

4.06 INSPECTION OF THE WORK

A. All work, including the fabrication and source of supply, is subject to observation by the University and by those agencies required by law to inspect specific items.

B. Contractor shall provide facilities for access and inspection as required by the University.

C. If the specifications, the University's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, Contractor shall give the University timely notice of its readiness for inspection, and if the inspection is by another authority, the date fixed for such inspection. Inspections by the University shall be made promptly and, where practicable, at the source of supply. Any work covered without approval must, if required by the University, be uncovered for examination at Contractor's expense.

4.07 REMOVAL OF DEFECTIVE WORK

A. All work and materials that do not conform to the requirements of the Contract will be considered unacceptable.

B. Any unacceptable or defective work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause shall be removed and replaced by work and materials that conform to the contract requirements, or shall be remedied otherwise in an acceptable manner authorized by the University.

C. If Contractor fails to comply promptly with any order made under this section, the University shall cause defective or unacceptable work to be remedied or replaced, and unauthorized work to be removed, and shall hold Contractor responsible for the costs thereof.
4.08 MAINTENANCE OF WORK DURING CONSTRUCTION

A. Contractor shall maintain the work during construction and until acceptance. This maintenance shall be continuous and effective, and prosecuted with adequate equipment and forces to the end that all parts of the Work are kept in satisfactory condition at all times, and protected from damage of any kind from external sources.

B. Particular attention shall be given to drainage, both permanent and temporary. Contractor shall use all reasonable precautionary measures to avoid damage or loss that might result from accumulations and concentrations of drainage water, and material carried by such waters and such drainage shall be diverted or dispersed when necessary to prevent damage to excavation, embankments, surfaces, structures, or property. Contractor shall take suitable measures to prevent erosion in all construction areas where existing ground cover has been removed. All such measures shall be in compliance with the requirements of any governmental entity having jurisdiction.

C. All costs of maintenance during construction and before final acceptance shall be included in the bid price; Contractor will not be paid additional amounts for such work.

D. If Contractor's work is halted by the University for failure to comply with the Contract, Contractor shall maintain the entire project as provided herein, and provide such ingress and egress for local residents or tenants adjacent to the project site, for tenants of the project site, and for the general public as may be necessary during the period of suspended work, or until Contractor has been declared in default.

E. On projects where traffic flow is maintained, Contractor shall be responsible for repair and restoration of all traffic damage to the work, either partially or totally completed, until the University accepts the work.

4.09 FAILURE TO MAINTAIN ENTIRE PROJECT

Contractor’s failure to comply with Section 4.4.08 shall result in notice by the University to comply with the required maintenance provisions. If Contractor fails to remedy unsatisfactory maintenance within 24 hours after receipt of such notice, the University will immediately proceed to maintain the project, and the entire cost of this maintenance will be charged to Contractor.

4.10 UNIVERSITY'S RIGHT TO DO WORK

If Contractor fails to prosecute the Work properly or to perform any provision of the Contract, the University, after three (3) days’ written notice to Contractor, may make good such deficiencies and deduct the cost thereof from the monies then or thereafter due to Contractor.

4.11 PARKING (See also Section 12.02)

A. Parking is allowed in only designated areas. Parking on sidewalks or unpaved areas is prohibited at all times.
B. All vehicles parked on Towson University property must strictly observe University parking regulations. Each vehicle parked on campus between 6 am and 8 pm, Monday through Thursday, and from 6 am to 3 pm on Fridays, must display a valid University permit unless parked at a paid meter. All fines for parking or other vehicle violations are the responsibility of Contractor.

C. This section applies to vendors, salespersons, company vehicles, and contractor employees’ personal vehicles. Long- and short-term permits are available, at designated rates, for vendors with contracts that require them to park regularly on the campus; see the parking website at http://wwwnew.towson.edu/adminfinance/auxservices/parking/ for permit rates and information to support preparation of bids and price proposals.

SECTION 5 - MATERIALS

5.01 GENERAL

A. All materials shall meet all quality requirements of the Contract. To expedite inspection and testing of materials, Contractor shall notify the University, in writing, of the sources from which Contractor proposes to obtain materials requiring approval, testing, inspection, or certification prior to incorporation into the work, as soon possible after notice of contract award.

B. Materials include all manufactured products and processed and unprocessed natural substances required for completion of the Contract. Contractor, in accepting the Contract, is assumed to be thoroughly familiar with the materials required and their limitations as to use, and requirements for connection, setting, maintenance, and operation. Whenever an article, material, or equipment is specified and a fastening, furring, connection (including utility connections), access hole, flashing closure piece, bed, or accessory is normally considered essential to its installation in good quality construction, such shall be included as if fully specified. Nothing in the specifications shall be interpreted as authorizing any work in a manner contrary to applicable laws, codes, or regulations.

C. Approval. All materials are subject to University approval for conformity with the specifications, quality, design, color, etc. No work for which approval is necessary shall be used until written approval is given. Approval of a subcontractor or supplier does not constitute approval of materials other than those included in the specifications.

D. New Materials. Unless otherwise specified, all materials shall be new. Old materials must not be used as substitutes for new, regardless of condition or repair, unless approved in writing by the University.

E. Quality. Unless otherwise specified, all materials shall be of the best quality of the respective kinds.

F. Samples. Contractor shall furnish all samples for approval as directed. Materials used shall be the same as the approved samples.
G. **Proof of Quality.** Contractor shall, if requested, furnish satisfactory evidence of the kind and quality of materials, either before or after installation, and shall pay for tests deemed necessary for substitutions as set forth in paragraph 5.03 of these General Conditions.

H. **Standard Specifications.** When no specification is cited and the quality, processing, composition, or method of installation of a thing is only generally referred to, then:

1. For items not otherwise specified below, the latest edition of the applicable American Society for Testing and Materials (ASTM) specification applies.

2. For items generally considered as plumbing and those items requiring plumbing connections, the applicable portions of the latest edition of the BOCA Code apply.

3. For items generally considered as heating, refrigeration, air conditioning, or ventilating, the applicable portions of the latest edition of the ASHRAE Handbook published by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc., apply.

4. For items generally considered as site work, the applicable portions of the Maryland State Highway Administration (SHA) Standard Specifications apply.

5. For items generally considered as electrical, the applicable provisions of the latest edition of the National Electrical Code apply.

6. For items generally considered as fire protection, the applicable portions of the latest edition of the National Fire Protection Association (NFPA) code apply.

I. Contractor is solely responsible for safeguarding its tools, materials, and equipment at the work site and elsewhere on the campus. The University shall not assume responsibility for vandalism and/or theft of Contractor materials, tools, or equipment.

J. Existing equipment and materials removed from the project shall become the property of the Contractor, who shall be responsible for removing same from the campus, absent a written agreement with the University. Contractor shall be responsible for proper handling of all materials removed for the purpose of recycling or salvage. Salvaged materials shall not be released to University staff without written approval from the Associate Vice President for Facilities Management. Under no circumstances shall Contractor provide salvage service on behalf of or for the benefit of University employees.

K. No asbestos, lead, or PCB-containing materials shall be used or installed on campus without prior written approval from the University's Department of Environmental Health & Safety (410-704-2949).

5.02 **STORAGE AND HANDLING OF MATERIALS**

A. Materials shall be stored and handled so as to assure the preservation of their quality and acceptability for the work. Stored materials, even though approved before
storage, may again be inspected prior to their use in the work. Stored materials shall be located so as to facilitate prompt inspection. Though not guaranteed, limited areas of the University may be used for some storage of materials and equipment, depending on the site location, time of the year, and the quantity of material/equipment; such storage areas shall be restored to their original condition at Contractor expense.

B. Contractor shall confine his tools and equipment and the storage of materials to the area designated by the TU Project Manager, and will not load or permit any part of the structure to be loaded with a weight that will endanger the safety of the structure or any part thereof.

C. Explosives

1. Explosives shall not be stored anywhere on University property.

2. Contractor may use explosives only upon written approval from the University. Approval will stipulate the time, place, and quantity of explosives to be used, and the manner of use.

3. Contractor assumes all responsibility for injury to persons or damage to property damage resulting from the use or transportation of explosives, and for complying with any and all ordinances, regulations, and restrictions related to the use of explosives.

D. Paints

1. Contractor shall not store oil-based paints or flammable liquids on the project site in containers larger than five (5) gallon size. Any liquid with a flash point of less than one hundred (100) degrees shall be contained in UL-approved safety cans; liquids with higher flash points shall be stored in rigid cans. Glass containers shall not be used.

2. Contractor shall remove all oily rags, waste, etc. from the work site at the close of each working day.

5.03 TESTS

A. If the Contract Documents, laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction require any portion of the Work to be inspected, tested, or approved, Contractor shall give timely notice of its readiness so the University may observe such inspection, testing, or approval. Contractor shall bear all costs of such inspections, tests, or approval conducted by public authorities.

B. If the University determines that any work requires special inspection, testing, or approval in addition to that required by the Contract Documents, Contractor will, upon written authorization from the University, order such special inspection, testing, or approval, and give notice as provided in 5.06 A above. If such special inspection or testing reveals that work does not comply with the Contract, Contractor shall bear all costs of testing; otherwise the University shall bear such costs.
C. Contractor shall promptly secure all required certificates of inspection, testing, or approval and promptly delivered same to the University.

5.04 BUY AMERICAN STEEL

Only steel products made in the United States shall be used or supplied in the performance of the contract or any subcontract thereunder. Steel products include products rolled, formed, shaped, drawn, extruded, forged, cast, fabricated, or otherwise similarly processed from steel made in the United States. This requirement shall not apply if the University determines that the cost of such steel products is unreasonable or inconsistent with the public interest. The provisions of this paragraph shall not apply where they are in conflict with any Federal grant or regulation affecting this contract.

SECTION 6 - LEGAL RELATIONS AND RESPONSIBILITIES

6.01 LAWS TO BE OBSERVED

A. Contractor shall keep fully informed of all federal, state, and local laws, ordinances, and regulations, and all orders and decrees of bodies or tribunals having any jurisdiction or authority, which in any manner affect those engaged or employed on the Work, or in which any way affect the conduct of the Work. He shall at all times observe and comply with all such laws, ordinances, regulations, orders, and decrees. He shall protect and indemnify the University and its representatives against such claim or liability arising from or based on the violation of any law, ordinance, regulation, order, or decree, whether by himself or his employees or subcontractors.

B. Contractor must comply with the provisions of the Workmen's Compensation Act and federal, state, and local laws relating to hours of labor.

C. The provisions of the Contract shall be governed by the Laws of Maryland.

D. Contractor shall give all notices and comply with all state and federal laws, ordinances, rules, and regulations bearing on the conduct of the Work as drawn and specified.

E. If Contractor observes that the drawings and specifications are at variance with any law, he shall promptly notify the University, and make all necessary changes as provided in the contract for changes in the work. If Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules, and regulations, and without such notice to the University, he shall bear all costs arising therefrom.

6.02 PERMITS AND LICENSES [Intentionally omitted]

6.03 PATENTED DEVICES, MATERIALS, AND PROCESSES [Intentionally omitted; see Exhibit A-2, Section 26]

6.04 LAND, AIR, AND WATER POLLUTION

A. Contractor shall incorporate all permanent erosion control features into the work at the earliest practicable time. Temporary pollution control measures will be used to
correct unforeseen conditions that develop during construction, that are needed prior to installation of permanent pollution control features, or that are needed temporarily to control erosion that develops during normal construction practices, but are not associated with permanent control features on the project.

B. Contractor is advised that temporary pollution control may include measures outside the project site, where such work is necessary as a direct result of project construction. Contractor shall keep the University advised of all such off-site control measures undertaken; however, this shall not relieve Contractor of basic responsibilities for such work.

C. If Contractor fails to control erosion pollution and/or siltation, the University reserves the right to employ outside assistance or to use its own forces to provide the necessary corrective measures. All expenses incurred by the University in the performance of such duties for Contractor shall be the responsibility of Contractor.

D. Contractor must submit evidence to the University that governing federal, state, and local air pollution criteria are met. This evidence and related documents will be retained by the University.

E. If the performance of all or any part of the work is suspended, delayed, or interrupted by order of a court of competent jurisdiction as a result of environmental litigation as defined below, the Procurement Officer, at the request of Contractor, shall determine whether the order is due in any part to the acts or omissions of Contractor required by the University under the terms of the contract. If it is determined that the order is due in any part to acts or omissions of Contractor required by the Procurement Officer in the administration of the Contract, such suspension, delay, or interruption shall be considered as if ordered by the Procurement Officer under the Suspension of Work clause of the contract. The period of such suspension, delay, or interruption shall be considered reasonable, and an adjustment shall be made for any increase in the cost of performance of the contract (excluding profit) as provided that clause, subject to all the provisions thereof.

F. The term "environmental litigation" as used herein means a lawsuit alleging that the work will have an adverse effect on the environment, or that the University has not duly considered, either substantively or procedurally, the effect of the work on the environment.

6.05 CONTRACTOR'S LIABILITY INSURANCE

A. Contractor and each subcontractor shall maintain such insurance as will protect from claims under Workmen's Compensation Act, and the Federal Longshoremen's and Harbor Workers' Compensation Act, and the Federal Employers Liability Act by coverage with insurance companies or by methods acceptable to the State Insurance Commissioner and by no other method, for damages which may arise from operations under this contract, whether such operations be by Contractor or by any subcontractor or anyone directly or indirectly employed by either. All insurance except Workmen's Compensation shall name the Towson University, the University System of Maryland, and the State of Maryland as additional insureds.
B. Contractor shall protect itself, the University, and the State from any claims for bodily injury, liability, and property damage liability.

C. Limits for bodily injury liability shall be not less than $1,000,000/2,000,000; i.e., $1,000,000 is the limit for injury per occurrence and $2,000,000 in the aggregate. The minimum limit for property damage liability shall be $1,000,000 per accident and $2,000,000 aggregate.

D. The above policies for bodily injury and property damage liability insurance shall be so written as to include contingent bodily injury and property damage liability Insurance to protect Contractor against claims from the operations of subcontractors.

E. Contractor's certificates of insurance containing evidence of the Hold Harmless Clause protecting the University and the State of Maryland shall be filed with the Procurement Officer and shall be subject to approval for adequacy of protection. No work shall be started at the site until appropriate certificates of insurance are filed with and approved by the Procurement Officer.

6.06 FIRE AND EXTENDED COVERAGE INSURANCE [Intentionally omitted; see Exhibit A-2, Section 38]

6.07 ASSIGNMENT [Intentionally omitted; see Exhibit A-2, Section 28]

6.08 SEPARATE CONTRACTS

A. The University reserves the right to let other contracts in connection with this Work. Contractor shall afford other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their Work, and shall properly connect and coordinate his Work with theirs.

B. If any part of Contractor's work depends for proper execution or results upon the work of any other contractor, Contractor shall inspect and promptly report any defects in such work that render it unsuitable for such proper execution and results. Failure to so inspect and report shall constitute acceptance of the other contractor's work as fit and proper for the reception of Contractor's work, except as to the defects that may develop in the other contractor's Work after the execution of Contractor's work.

C. To insure proper execution of his subsequent work, Contractor shall measure work already in place and shall at once report to the University any discrepancy between the executed work and the drawings.

6.09 RELATIONSHIP OF CONTRACTOR TO PUBLIC OFFICIALS AND EMPLOYEES

A. In carrying out any of the provisions of the Contract, or in exercising any power or authority granted to them by or within the scope of the Contract, there shall be no liability upon the Procurement Officer or other authorized representatives of the University, it being understood that in all such matters they act solely as agents and representatives of the University.
B. The University may terminate the Contractor’s right to proceed under the Contract if the Procurement Officer finds that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by Contractor or any agent or representative of Contractor to any officer or employee of the University with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending or the making of any determinations with respect to the performing of such contract. The facts upon which the Procurement Officer makes such findings may be reviewed in any competent court.

C. In the event the Contract is terminated as provided in paragraph B above, the University shall be entitled (1) to pursue the same remedies against Contractor as it could pursue in the event of Contractor’s breach of the contract, and (2) in addition to any other damages to which it may be entitled by law, to exemplary damages in an amount (as determined by the Procurement Officer) which shall be not less than three, nor more than ten times the costs incurred by Contractor in providing any such gratuities to any such officer or employee.

D. The rights and remedies of the University provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

E. Conflict of Interest. No official or employee of the State of Maryland whose duties as such official or employee include matters relating to or affecting the subject matter of this contract, shall, during the pendency and term of this Contract and while serving as an official or employee of the State, become or be an employee of Contractor or any subcontractor on this contract.

6.10 NO WAIVER OF LEGAL RIGHTS

A. The University and the State of Maryland shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefore, from showing the true amount and character of the work performed and materials furnished by Contractor, or from showing that any such measurement, estimate, or certificate is untrue or is incorrectly made, or from showing that the Work or materials do not in fact conform to the requirements of the contract. The University and the State of Maryland shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate, and payment from recovering from Contractor or his sureties, or both, such damage as it may sustain by reason of failure to comply with the terms of the Contract. Neither the acceptance by the University or any representative of the University, nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by the University shall operate as a waiver of any portion of the contract or of any power herein reserved, or of any right to damages.

B. Waiver by the University of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

6.11 COVENANT AGAINST CONTINGENT FEES [Intentionally omitted; see Exhibit A-2, Sec. 1]
6.12 ASSIGNMENT OF ANTITRUST CLAIMS

Contractor sells, transfers, and assigns to the University and the State of Maryland all rights, title, and interest of and in and to any causes of action arising at any time before the date of this assignment or during the performance of this contract under the Antitrust Laws of the United States, including Section 1 of the Sherman Act, and the Antitrust Law of Maryland relating to the purchase by him or the University or the State of Maryland of any products from any supplier or source whatever that are incorporated in structures built under the terms of this agreement. Contractor hereby certifies that the above causes of action are lawfully owned and that no previous assignment of same, has been made nor has the same heretofore been attached or pledged in any manner whatsoever.

6.13 FEDERAL PARTICIPATION [Intentionally omitted]

6.14 DISPUTES [Intentionally omitted; see Exhibit A-2, Section 27]

6.15 CLAIMS

A. Under no circumstances will overhead or profit be permitted as items of a claim, when such overhead or profit is for periods during which a "Stop Work" order is in effect due to an act, error, omission for which the contractor is responsible.

B. No profit or overhead that includes rental of equipment and the salaries of supervisory personnel will be allowed Contractor for stoppage of work when written notice of such stoppage, or impending stoppage, is not given sufficiently far in advance to prevent such stoppage.

C. No claim will be granted that includes cost of delays or work stoppage due to strikes lockouts, fire, unusually severe weather, avoidable casualties, or damage or delay in transportation for which the University or its agents are responsible; only time extensions, in accordance with Section 7.03 will be granted.

D. Contractor and the University agree that no prejudgment or post-judgment interest on any claims asserted by either party will be allowed.

E. No claim for damage caused by a delay will be allowed unless, within five (5) days of the act or omission causing the delay, Contractor notifies the University of the existence of the delay.

SECTION 7 - PROSECUTION AND PROGRESS OF THE WORK

7.01 NOTICE TO PROCEED

After the Contract has been executed, the University will issue Contractor a "Notice to Proceed" that stipulates the date on or before which Contractor is expected to begin work. The specified contract time shall begin on the day work (other than the erection of the inspector's office, construction stakeout, and mobilization) actually starts, or on the day stipulated in the Notice to Proceed, whichever is earlier. Any preliminary work started or materials ordered before receipt of Notice to Proceed shall be at contractor's risk.
7.02 SIGNS

A. **General.** The University shall provide one project sign for each major entrance to the project. The contractor shall be responsible for placement and maintenance of the sign(s).

B. **Installation.** Posts for sign(s) shall be supplied by the contractor and made of 4 x 6 inch construction grade lumber, pressure-preservative treated, 10 feet long. The sign(s) shall be bolted to the posts using at least two 8 inch bolts per post. Washers shall be used between the bolts and the sign faces and the posts and nuts. The posts shall be set into the ground to a depth of three feet, six inches with the bottom of the signs two feet six inches above the ground.

C. **Removal.** The University shall be responsible for removing the sign(s) after final acceptance of the work.

7.03 PROSECUTION OF THE WORK

A. **All time limits in the Contract Documents are of the essence of the Contract.**

B. **The date of commencement of the work is the date established in a Notice to Proceed signed by the Procurement Officer.**

C. **If Contractor is delayed at any time in the progress of the work by any act or neglect of the University or any of its officers, agents, or employees, or by any separate contractor employed by the University, or by any changes ordered in the work, or by labor disputes, fire, unusual delay in transportation, unavoidable casualties, or by any cause which the Procurement Officer determines may justify any delay, then the contract time shall be extended for such time as the Procurement Officer may authorize.**

D. **It is expressly understood and agreed by and between Contractor and the University that the time for the completion of the work is a reasonable time, taking into consideration average climatic range and usual business conditions prevailing in the locality of the project.**

7.04 PUBLIC CONVENIENCE AND SAFETY

Contractor at all times shall conduct the work in such a manner as to create the least practicable obstruction to all forms of traffic. The convenience of the general public, tenants, and of the residents along and/or adjacent to the improvement shall be respected. Material stored upon the project shall be placed so as to cause a minimum of obstruction to the public. Contractor shall, unless otherwise specified, provide and maintain in passable condition such temporary access roads and bridges as may be necessary to accommodate traffic diverted from the project under construction, or using the project under construction, and shall provide and maintain in a safe condition temporary approaches to, and crossings of, the project. Existing facilities scheduled to be removed, but which might be of service to the public during construction, will not be disturbed until other and adequate provisions are made. Fire hydrants on or adjacent to the project shall be kept accessible to fire apparatus at all times, and no material or obstruction shall be placed within 15 feet of any such hydrant. Work closed down for the winter or at any other times shall be left entirely accessible at all
points to fire apparatus. All footways, gutters, sewer inlets, and portions of the project the work under construction shall not be obstructed more than is absolutely necessary.

7.05 BARRICADES AND WARNING SIGNS

A. Contractor shall provide, erect, and maintain all necessary barricades, suitable and sufficient lights, danger signals, signs, and other control devices, and shall take all necessary precautions for the protection of the work and safety of the public. All highways and other facilities closed to traffic shall be protected by effective barricades, and obstructions shall be illuminated during hours of darkness with electric lights.

B. Contractor shall erect warning signs in advance of any place on the project where its operations may interfere with vehicular or pedestrian traffic, and at all other points where the new work crosses or coincides with an existing roadway or traffic lane(s). Such warning signs shall be constructed and erected in accordance with the FHWA Manual on Uniform Traffic Control Devices, or as directed.

7.06 PRESERVATION PROTECTION AND RESTORATION OF PROPERTY

A. Contractor shall continuously maintain adequate protection of its work from damage, and shall protect University property from injury or loss arising in connection with the Contract. Contractor shall repair, and shall indemnify the University against any such damage, injury, or loss, except such as may be directly due to errors in the Contract Documents, or caused by agents or employees of the University. Contractor shall adequately protect adjacent property as provided by law, and by the Contract Documents.

B. Contractor shall box all trees that are liable to injury by the moving, storing, and working up of materials. He shall use no tree for any attachment or anchorage.

C. Contractor shall erect and properly maintain at all times, as required by the conditions and progress of the Work, all necessary safeguards for the protection of workmen and the public, and shall post danger signs warning against the hazards created by such features of construction as protruding nails, hod hoists, well holes, elevator hatchways, scaffolding, window openings, stairways, and falling materials.

D. In any emergency affecting the safety of life or of the Work or of the adjoining property, Contractor, without special instruction or authorization, is permitted to act, at his discretion, to prevent such threatened loss or injury. If specifically instructed by the University to do work in an emergency, Contractor shall do the work and be compensated as outlined in Section 3.06.

7.07 PROGRESS SCHEDULE AND TIME

Preparation of Work Schedule. Contractor shall prepare a schedule setting forth dates for completing various portions of the work. Included among the tasks set forth on the schedule shall be the dates for submittals, and dates for the return of the approved submittals. The schedule shall be reviewed for approval of the time within which the University must evaluate Contractor submittals. Approval of Contractor's schedule does not constitute approval of the entire schedule, but merely an approval of that portion of the schedule that relates to the
review of submittals. If Contractor fails to prepare and submit to the University a schedule before the occurrence of a delay, then no claim for extra costs due to delay in the work shall be recognized or asserted.

7.08 PROGRESS PHOTOGRAPHS

Contractor shall submit to the University photographs, taken on or about the first of each month, showing the status of the Work. Contractor shall photograph all disputed items of work.

7.09 SUSPENSION OF THE WORK [Intentionally omitted; see Exhibit A-2, Section 63]

7.10 CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

If the Work should be stopped under an order of any court, or other public authority, for a period of three (3) months, through no act or fault of the contractor, or of anyone employed by him, then Contractor may, upon seven (7) days' written notice to the Procurement Officer, stop work or terminate this contract.

7.11 UNIVERSITY'S RIGHT TO TERMINATE FOR ITS CONVENIENCE [Intentionally omitted; see Exhibit A-2, Section 66]

7.12 TERMINATION FOR DEFAULT--DAMAGES FOR DELAY--TIME EXTENSIONS [Intentionally omitted; see Exhibit A-2, Sections 25 and 65]

7.13 PARTIAL ACCEPTANCE

A. If during the construction of work the University desires to occupy any portion of the project, the University shall have the right to occupy and use those portions of the project which, in the opinion of the Procurement Officer, can be used for their intended purpose; provided that the conditions of occupancy and use are established and the responsibilities of Contractor and the University for maintenance, heat, light, utilities, and insurance are mutually agreed.

B. Partial occupancy shall in no way relieve Contractor of its responsibilities under the contract.

7.14 FAILURE TO COMPLETE ON TIME/LIQUIDATED DAMAGES

A. Time is an essential element of the Contract and the work shall be vigorously prosecuted until completion.

B. For each day that any work shall remain uncompleted beyond the time(s) specified elsewhere in the Contract, Contractor may be liable for liquidated damages in the amount(s) provided for in the solicitation, provided, however, that due account shall be taken of any adjustment of specified completion time(s) for completion of work as granted by approved change orders.
7.15 SUBSTANTIAL COMPLETION AND FINAL INSPECTION

A. When the work is substantially completed, the contractor shall notify the Procurement Officer that the work will be ready for final inspection and test on a definite date. Sufficient notice shall be given to permit the Procurement Officer to schedule the final inspection.

B. On the basis of the inspection, if the Procurement Officer determines that the work is substantially complete and the project can be occupied or used for its intended purpose, the Procurement Officer shall establish the date of substantial completion and shall state the responsibilities of the University and the contractor for maintenance, heat, utilities, and insurance, and shall fix the time for which the guarantee will begin.

7.16 CLEANING UP

Contractor shall at all times keep the construction area, including storage areas, free from accumulations of waste materials or rubbish and, prior to completion of the work, remove all rubbish from the premises and all tools, scaffolding, equipment, and materials not the property of the University. Contractor shall give special attention to any materials used on rooftops or exposed areas that may become windborne and be hazards, public nuisances, or litter on nearby grounds. Upon completion, Contractor shall leave the work and premises in a clean, neat, and workmanlike condition satisfactory to the Procurement Officer.

7.17 GUARANTEES

The contractor guarantees for a two (2) year period (unless another period is specified), commencing on the date fixed by the parties:

A. That the work contains no faulty or imperfect material or equipment or any imperfect, careless, or unskilled workmanship.

B. That all mechanical and electrical equipment, machines, devices, etc., shall be adequate for the use to which they are intended, and shall operate with ordinary care, and attention in a satisfactory and efficient manner.

C. That he will re-execute, correct, repair, or remove and replace with proper work, without cost to the University, any work found not be as guaranteed by this Section. The contractor shall also make good all damages caused to other work or materials in the process of complying with this Section.

D. That the entire work shall be water-tight and leak-proof in every particular.

7.18 NOTICE TO UNIVERSITY OF LABOR DISPUTES

A. Whenever the contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this contract, the contractor shall immediately give notice thereof, including all relevant information with respect thereto, to the Procurement Officer.

B. The contractor agrees to insert the substance of this clause, including this Paragraph B., in any subcontract hereunder as to which a labor dispute may delay the timely
performance of this contract; except that each such subcontract shall provide that in the event its timely performance is delayed or threatened by delay by any actual or potential labor dispute, the subcontractor shall immediately notify his next higher tier subcontractor, or the prime contractor, as the case may be, of all relevant information with respect to such dispute.

SECTION 8 - PAYMENTS

8.01 CORRECTION OF WORK BEFORE COMPLETION

A. Contractor shall promptly remove from the premises all materials condemned as failing to conform to the contract, whether incorporated in the work or not. Contractor shall promptly replace and re-execute its own work in accordance with the contract and without expense to the University, and shall bear the expense of making good all work of other contractors destroyed or damaged by such removal or replacement.

B. If Contractor does not remove such condemned work and materials within a reasonable time, fixed by written notice, the University may remove and store the materials at Contractor expense. If Contractor does not pay the expense of such removal within ten (10) days thereafter, the University may, upon ten (10) days notice, sell such materials and shall account for the net proceeds thereof, after deducting all the costs and expenses that should have been borne by Contractor.

8.02 PAYMENT OF INTEREST [Intentionally omitted; see Exhibit A-2, Section 50]

8.03 AUDITS BY THE STATE

A. Contractor agrees that the State or any of its duly authorized representatives shall, until the expiration of three years after final payment under this contract have access to and the right to examine any directly pertinent books, documents, papers, and records of the contractor involving transactions related to this contract.

B. Contractor further agrees to include in all subcontracts hereunder a provision to the effect that the subcontractor agrees that the University or any of its duly authorized representatives shall, until the expiration of three years after final payment under the subcontract, have access to and the right to examine any directly pertinent books, documents, papers, and records of such subcontractor, involving transactions related to the subcontract.

SECTION 9 - EMPLOYEES, SUBCONTRACTORS A WORK CONDITIONS

9.01 EMPLOYEES AND WORKMANSHIP

A. Qualification of Employees. Contractor shall employ only personnel thoroughly trained and skilled in the tasks assigned on any portion of the work. Any employee found to be unskilled or untrained shall be removed from the work.
B. **Licensed Employees.** When municipal, county, state, or federal laws require that certain personal (electricians, plumbers, etc.) be licensed, all such personal employed on the work shall be so licensed.

C. **Quantity of Labor.** Contractor shall employ on the work, at all times, sufficient personnel to complete the work within the time stated in the contract.

D. **Work Areas.** Contractor shall confine the operations of his employees to the limits as provided by law, ordinance, permits, or directions of the University. Generally, the work area will be the same as the "Limit of Contract" line indicated in the construction documents.

E. **Methods and Quality**
   1. All workmanship shall be of good quality. Where the method of work or manner of procedure is not specifically stated in the contract documents, it is intended that the best standard practice shall be followed. Recommendations of the manufacturers of approved materials shall be considered part of these specifications and all materials shall be applied, installed, connected, erected, used, cleaned, and conditioned as so called for thereby.
   2. All materials shall be accurately, assembled, set, etc., and when so required in good construction, shall be true to line, even, square, plumb, level, and regularly spaced, coursed, etc. Under no circumstances, either in new or old work, shall any material be applied over another which has not been thoroughly cleaned, sanded, or otherwise treated so as not to impair the finish, adhesion, or efficiency of the next applied item.

F. **Scheduling**
   1. Contractor shall so schedule the Work as to ensure efficient and uninterrupted progress, and to minimize cutting and patching of new Work. All cutting, patching, and digging necessary to the execution of the Work is included.
   2. Contractor shall so schedule the construction performed by each group or trade that each installation or portion of the construction shall member with and join with every other new or old Work as required for a complete installation, all according to accepted good construction practice.

G. **Superintendent.** Contractor shall keep on the Work, at all times during its progress, a competent English-speaking superintendent and any necessary assistants, all approved by the University prior to commencement of the Work. Contractor shall submit in writing to the University the name of the person it intends to employ as superintendent for the execution of this contract, with a statement of the proposed superintendent's qualifications, to be reviewed by the University and approved or rejected in writing. Persons who have previously proved unsatisfactory on work executed for the University or the State of Maryland, or who lack sufficient qualifications, will not be approved, and this procedure will be repeated. A single Contractor Superintendent may superintend two or more jobs located at the same
institution or nearby only when approved by the University in writing. The Superintendent shall represent the contractor, and all directions given to the Superintendent shall be as binding as if given directly to the Contractor. Important directions shall be confirmed in writing to the Contractor. Other directions shall be so confirmed upon written request. A Superintendent who proves unsatisfactory to the University shall be removed from the work, and Contractor shall submit a new Superintendent for approval as described above.

H. Discipline. Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ or permit to remain on the work any unfit person. He shall enforce all instructions relative to use of water, heat, power, no smoking, and control and use of fires as required by law, and the University. Employees must not be allowed to loiter on the premises before or after working hours.

9.02 NON-DISCRIMINATION EMPLOYMENT POLICIES [Intentionally omitted; see Exhibit A-2, Section 44]

9.03 SUBCONTRACTS

A. Contractor shall, as soon as practicable and before execution of the contract, notify the University, in writing, of the names of subcontractors proposed for the principal parts of the work, and shall not employ any to which the University may object as incompetent or unfit.

B. Contractor shall be as fully responsible to the University for the acts and omissions of subcontractors, and of persons either directly employed by them, as for the acts and omissions of persons directly employed by Contractor.

C. Nothing contained in the Contract Documents shall create any contractual relation between any subcontractor and the University and nothing in the contract documents is intended to make the subcontractor a beneficiary of the contract between the University and the contractor.

9.04 RELATION OF CONTRACTOR AND SUBCONTRACTOR

A. Contractor agrees to bind every subcontractor, and will see that every subcontractor agrees to be bound by the terms of the Agreement, the General Conditions, the Drawings, and Specifications as far as applicable to its work, unless specifically noted to the contrary in a subcontract approved in writing by the University.

B. Contractor agrees to include the following provision in all subcontracts and supply contracts applicable to the work:

1. Subcontractor agrees to be bound to Contractor by the terms of the Agreement, General Conditions, Drawings, and Specifications, and to assume toward him all obligations and responsibilities that Contractor, by those documents, assumes toward the University.
2. Subcontractor agrees, upon completion of its work, to promptly pay all labor, material suppliers, vendors, subcontractors, and others, to permit simultaneous final payment by Contractor.

C. Contractor agrees to be bound to subcontractor by all the obligations that the University assumes to the Contractor under the Agreement, General Conditions, Drawings, and Specifications, and by all the provisions thereof affording remedies and redress to the Contractor from the University.

1. To pay the subcontractor to such extent as may be provided by the contract documents or the subcontract;

2. To pay the subcontractor on demand for his work or materials as far as executed and fixed in place, less the retained percentage;

3. To pay the subcontractor a just share of any fire insurance money received by Contractor; and

4. To give the subcontractor an opportunity to be present and to submit evidence in any matter involving his rights.

D. Prompt Payment of Subcontractors: This contract is subject to the provisions of COMAR 21.10.08. Contractor shall promptly pay subcontractor any undisputed amount to which the subcontractor is entitled. In the event Contractor fails to pay promptly, subcontractors may request remedy in accordance with COMAR 21.10.08. Contractor shall include in each subcontract a clause that contains substantially the same provisions as this clause.

E. Contractor and subcontractor agree that nothing in this section shall create any obligation on the part of the University to pay to or to see to the payment of any sums to any subcontractor.

9.05 PREVAILING WAGE RATES [Intentionally omitted]

9.06 CONSTRUCTION SAFETY AND HEALTH STANDARDS

It is a condition of the Contract and shall be made a condition of each subcontract that neither Contractor nor any subcontractor shall require any laborer or mechanic employed in performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to health or safety, as determined under construction safety and health standards, laws and regulations of the locality in which the work is done, the state, and the federal government.

SECTION 10 [Intentionally omitted]
SECTION 11 - ENVIRONMENTAL HEALTH AND SAFETY

11.01 STORM WATER POLLUTION PREVENTION/PROHIBITION OF ILLICIT DISCHARGES

No person shall cause or contribute discharge directly or indirectly into the Towson University municipal storm drain system or waterways any materials, including but not limited to pollutants or waters containing any pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water.

Refer to 06-20.00 – University Policy on Storm Water Illicit Discharge Detection and Elimination for additional information.

No person may improperly store, handle, use or apply any pollutant in a manner that will cause its exposure to rainfall, runoff and discharge into the Towson University municipal storm water drain system or campus waterways.

The commencement, conduct or continuance of any illegal discharge to the storm drain system is prohibited except as described:

A. The following discharges are exempt from discharge prohibitions:

- water line flushing or other potable water sources, landscape irrigation or lawn watering, diverted stream flows, rising ground water, ground water infiltration to storm drains, uncontaminated pumped ground water, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, non-commercial washing of vehicles, natural riparian habitat or wet-land flows, swimming pools (if dechlorinated - typically less than one PPM chlorine), fire-fighting activities, and any other water source not containing pollutants.

B. Any discharges specified in writing by Towson University Environmental Health & Safety as being necessary to protect public health and safety.

C. Dye testing only with required verbal notification to Towson University Environmental Health & Safety [(410) 704-2949 or safety@towson.edu] prior to the time of the test.

D. The following discharges are exempt from discharge prohibitions: water line flushing or other potable water sources, landscape irrigation or lawn watering, diverted stream flows, rising ground water, ground water infiltration to storm drains, uncontaminated pumped ground water, foundation or footing drains (not including active groundwater dewatering systems), crawl space pumps, air conditioning condensation, springs, non-commercial washing of vehicles, natural riparian habitat or wet-land flows, swimming pools (if dechlorinated - typically less than one PPM chlorine), fire-fighting activities, and any other water source not containing pollutants.
11.02 PROHIBITION OF ILLICIT CONNECTIONS

The construction, use, maintenance or continued existence of illicit connections to the storm drain system is prohibited. This prohibition expressly includes, without limitation, any illicit connections made in the past. This is regardless of whether the connection was permissible under law or practices applicable or prevailing at the time of connection. A person is considered to be in violation if the person connects a line conveying sewage to the MS4, or allows such a connection to continue.

11.03 NOTIFICATION OF SPILLS OR ILLICIT DISCHARGES

Notwithstanding other requirements by law, as soon as any contractor has information regarding any known or suspected release of materials that result or may result in illegal discharges or pollutants discharging into storm water, the storm drain system, campus waterways said person shall take all necessary steps to ensure the discovery, immediate containment, and cleanup of such release. **In the event of a release of hazardous materials or upon observing an illicit environmental discharge immediately contact the Towson University Police Department (TUPD) at (410) 704-4444.** In the event of a release of non-hazardous materials, notify Towson University Environmental Health & Safety in person or by phone [(410) 704-2949] or e-mail [safety@towson.edu] no later than the next business day. Notifications in person or by phone shall be confirmed by written notice addressed and mailed to Environmental Health & Safety, Towson University, 8000 York Road, Towson, MD 21252 within three business days of the phone notice.

11.04 ENFORCEMENT

A. Enforcement for student violators will follow the TU Office of Student Conduct and Civility Educations *Code of Student Conduct.*

B. Enforcement for University employees (Faculty and Staff) shall follow the Towson University Policy for discipline or termination *Policy No. 07.05.25—Disciplinary Action for Employees.*

C. Enforcement for Visitors (Non-TU Faculty, Staff, Students or Contractors)

D. Individuals or Contractors, depending on the nature and severity of the violation, may be referred to MDE for prosecution for violation of federal and state laws and regulations.

E. Any fines, penalties, environmental monitoring or remediation expenses, etc., resulting from the illicit discharge, will be violator’s responsibility.

F. During normal University business hours (Monday-Friday, 8am-4pm), contact EHS at (410) 704-2949 to report violations.

G. If the violator is still on the scene, they should also immediately contact TUPD at (410) 704-4444.

H. After normal duty hours, weekends and holidays, contact TUPD at (410) 704-4444 to report violations.
SECTION 12: OFM SUPPLEMENTAL CONDITIONS

12.01 STORAGE OF MATERIALS

The University has very limited storage space for any materials or equipment and may not be able to meet Contractor’s requests for such depending on the site location, time of year, and amount of equipment/materials.

12.02 PARKING

Parking must be coordinated prior to commencement of work. Designated parking areas will be provided for limited construction-related vehicles close to the work site; these may also require a fee-based permit. Contractor employees may need to use remote off-campus parking and carpool to the construction site. Contractor shall be responsible for securing any necessary permits for designated areas, for the duration of the project. Vehicles other than construction-related vehicles are not permitted on campus; boats, trailers, campers, etc. will be towed immediately, at vehicle owner’s expense.

12.03 INSPECTIONS

Inspections will be performed by the appropriate agencies as specified in the Contract documents. Towson University and independent inspection agencies, as required, will perform most required inspections. Other agencies that may be required for inspection are:

- Maryland Department of the Environment (MDE)
- State Fire Marshall

12.05 AMERICANS WITH DISABILITIES ACT (ADA) COMPLIANCE

All work performed shall be in compliance with current ADA regulations. Contractor shall notify the Owner of any deficiencies in design bearing on ADA compliance, prior to commencement of work.

12.06 VEHICULAR ACCESS

Contractors will use only the vehicle access routes approved by OFM prior to commencement of the project. Under no circumstances shall Contractor park or drive motor vehicles on grass or landscaped areas. Contractor shall bear all costs of repair or replacement of areas damaged by its vehicles.

12.07 CONTRACTOR MOTOR VEHICLES

Under no circumstances shall a contractor vehicle exceed 15 mph while on university property. Pedestrians have right of way at all times, with no exceptions. Any Contractor vehicle over 1 ton shall have operational back-up signals. Flat beds, box trailers and all 18-wheel vehicles shall be accompanied by an assistant during the back-up process to ensure the safety of pedestrians and property in the path of the vehicle.
12.08 CONTRACTOR’S EMPLOYEE BEHAVIOR

Contractor is responsible for its employees' behavior at all times. Unprofessional behavior will not be tolerated and will be cause for immediate removal of the employee(s) from campus property. Contractor employees should refrain from unsolicited conversation with the general campus public.

12.09 NOISE RESTRICTIONS

Due to the close proximity of residential communities and hospitals to University property, noise limitations are imposed during certain hours. Normal work hours (7:00am - 5:00pm) are not limited except as may be specified in regard to the adjacent classroom building schedules. When Contractor anticipates work before or after normal hours, it shall confirm with the University’s Project Manager that the work to be accomplished is within acceptable noise limits.

12.10 ELECTRICAL/MECHANICAL TIE-IN

Contractor shall coordinate all electrical and mechanical tie-ins through the University Project Manager at least 72 hours in advance. Contractor shall not enter any electrical panel for inspection, installation, or otherwise without the consent of the Project Manager. Where Contractor anticipates mechanical tie-in, he shall verify with the University Project Manager that existing valves and other control systems are functional. The University plumbing shop shall drain down all mechanical equipment.

12.11 WORK HOURS. Normal work hours shall be as follows:

- Weekdays: 7:00am - 4:00pm
- Weekends: 7:00am - 4:00pm, with written authorization
- Holidays: Only with advanced authorization

Deviations from normal work hours must be requested from the University's Project Manager not less than 72 hours prior to the start of anticipated work.

12.12 RADIOS

Playing of radios, CD players, etc. is not permitted on any construction site.

12.13 MAINTENANCE OF PROPERTY

Contractor is solely responsible for maintaining, at its expense, all property within the Limit of Disturbance (L.O.D.) or the established construction fence, which ever has the greater perimeter, including:

A. Cutting grass to a maximum 4” height and, where a construction or safety fence exists; trimming both sides.

B. Establishing and maintaining safety fence at the drip line of all trees and shrubs marked to remain.
C. Maintaining clean walkways and entrances to trailers used as site offices.

12.14 CONTRACT AND ADMINISTRATIVE PROTOCOL

Contractor and all contractor representatives shall clearly understand and strictly adhere to the following University protocols prior to work commencement:

A. All coordination between Contractor and Owner shall be through the University’s designated Project Manager. At no time shall Contractor request or demand support or assistance from the University’s maintenance department, trades shops, or grounds department. Failure to observe this protocol shall result in dismissal of Contractor’s superintendent from the site.

B. Coordination for submission of administrative and contractual documents shall be as outlined in pre-construction or work initiation meeting.