

TOWN OF GLASTONBURY

INVITATION TO BID

<u>BID #</u>	<u>ITEM</u>	<u>DATE & TIME REQUIRED</u>
GL-2014-26	Gym Floor Replacement Smith Middle School	May 22, 2014 @ 2:00 p.m.

The Town of Glastonbury is seeking bids for the replacement of Main and Auxiliary Gym floors at Smith Middle School, 216 Addison Road, Glastonbury, CT 06033

Bid packages may be obtained at The Print House LLC, 22 Krieger Lane, Unit 6, Glastonbury, CT 06033 for a nonrefundable cost of \$30. Bidders are advised to call at least 30 minutes prior to pick up.

A mandatory pre-bid meeting and site walk through will be held starting at the Smith Middle School, 216 Addison Road, Glastonbury, CT 06033 on May 13th at 1:00 p.m. All bidders must attend in order for their bid to be considered.

Contractors shall comply with State Statutes concerning Employment, and Labor Practices, if applicable, and Section 31-53 of the Connecticut General Statutes as amended (Prevailing wages), including annual adjustments in Prevailing Wages. Certified payrolls will be required bi-weekly.

Sealed bids must be accompanied with Bid Security. Bid Security shall be issued payable to the "Town of Glastonbury" in the form of a certified check or Bid Bond in an amount not less than 10% of the total amount of the base bid. The Bid Bond must be issued by a surety company licensed in the State of Connecticut. Cashier's checks will not be accepted.

The Town reserves the right to waive informalities or reject any part of, or the entire bid, when said action is deemed to be in the best interest of the Town. All Sealed Bids must be submitted to the Office of the Purchasing Agent no later than the time and date indicated. All bids will be publicly opened and read.

The Town of Glastonbury is an Affirmative Action/Equal Opportunity Employer. Minority/Women/Disadvantaged Business Enterprises are encouraged to bid.

Mary F. Visone
Purchasing Agent

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TOWN OF GLASTONBURY
Smith Middle School Gym Floor Replacement
INFORMATION FOR BIDDERS

BID #GL-2014-26

1. General: Where the term "Town" or "Town of Glastonbury" is used this shall be assumed to apply, also, to the Glastonbury Board of Education.
2. Sealed bids (**one original and one copy**) on the attached Bid Forms will be received at the Office of the Purchasing Agent, Town Hall, 2155 Main Street, Glastonbury, Connecticut, 06033 (second level). At the designated time of opening, they will be publicly opened, read, recorded and placed on file.
3. Whenever it is deemed to be in the best interest of the Town, the Town Manager, Purchasing Agent or designated representative shall waive informalities in any and all bids. The right is reserved to reject any bid, or any part of any bid, when such action is deemed to be in the best interest of the Town of Glastonbury.
4. The Town intends to award this work to one Bidder. Bidders shall submit a Bid on a lump sum basis for all line items in the Base Bid. The basis of award will be based upon the sum of the Base Bid line items selected by the Owner. The Town reserves the right to make a partial award of any of the line items in the lump sum base bid as deemed in the Town's best interest.
5. Bids will be carefully evaluated as to conformance with stated specifications.
6. The envelope enclosing your bid should be clearly marked by bid number, time of bid opening, and date.
7. Specifications must be submitted complete in every detail and, when requested, samples shall be provided. If a bid involves any exception from stated specifications, they must be clearly noted as exceptions, underlined, and attached to the bid.
8. The Bid Documents contain the provisions required for the requested item. Information obtained from an officer, agent, or employee of the Town or any other person shall not affect the risks or obligations assumed by the Bidder or relieve him/her from fulfilling any of the conditions of the bid.
9. Each Bidder is held responsible for the examination and/or to have acquainted themselves with any conditions at the job site which would affect their work before submitting a bid. Failure to meet these criteria shall not relieve the Bidder of the responsibility of completing the bid without extra cost to the Town of Glastonbury.
10. Any bid may be withdrawn prior to the above-scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and the date specified shall not be considered. No Bidder may withdraw a bid within sixty (60) days after the actual date of the opening thereof. Should there be reasons why a bid cannot be awarded within the specified period, the time may be extended by mutual agreement between the Town and the Bidder.
11. Each bid must be accompanied by a bid bond payable to the Town for ten percent (10%) of the total amount of the bid. The bid bond of the successful Bidder will be retained until the payment bond and performance bond have been executed and approved, after which it will be returned. A certified check may be used in lieu of a bid bond. The Town of Glastonbury will not be liable for the accrual of any interest on any certified check submitted. Cashier's checks will not be accepted.

12. A 100% Performance and Payment bond is required of the successful bidder. This bond shall cover all aspects of the specification and shall be delivered to the Purchasing Agent prior to the issuance of a purchase order. The Performance and Payment Bond will be returned upon the delivery and acceptance of the bid items.
13. The Bidder agrees and warrants that in the submission of this sealed Bid, they will not discriminate or permit discrimination against any person or group of persons on the grounds of race, color, religion, national origin, sex, or physical disability including, but not limited to blindness, unless it is shown by such Bidder that such disability prevents performance of that which must be done to successfully fulfill the terms of this sealed Bid or in any manner which is prohibited by the laws of the United States or the State of Connecticut: and further agrees to provide the Human Relations Commission with such information requested by the Commission concerning the employment practices and procedures of the Bidder. An Affirmative Action Statement will be required by the successful Bidder.
14. Bidder agrees to comply with all of the latest Federal and State Safety Standards and Regulations and certifies that all work required in this bid will conform to and comply with said standards and regulations. Bidder further agrees to indemnify and hold harmless the Town and Board of Education for all damages assessed against the Town or Board of Education as a result of Bidder's failure to comply with said standards and/or regulations.
15. All correspondence regarding any purchase made by the Town of Glastonbury or Glastonbury Board of Education shall reference the Town or Board of Education purchase order number. Each shipping container shall clearly indicate both purchase order number and item number.
16. Bidder is required to review the Town of Glastonbury Code of Ethics adopted July 8, 2003 and effective August 1, 2003. Bidder shall acknowledge that they have reviewed the document in the area provided on the bid/proposal response page (BP). The selected Bidder will also be required to complete and sign an Acknowledgement Form prior to award. The Code of Ethics and the Consultant Acknowledgement Form can be accessed at the Town of Glastonbury website at www.glastonbury-ct.gov. Upon entering the website click **Bids & RFPs** which will bring you to the links for the Code of Ethics and the Consultant Acknowledgement Form. If the Bidder does not have access to the internet, a copy of these documents can be obtained through the Purchasing Department at the address listed within this bid/proposal.
17. Any bidder, in order to be considered, shall be engaged primarily in the business of construction with a minimum of five (5) years, prior experience with athletic floors and have a valid contractor's license in the State of Connecticut.
18. **Non-Resident Contractors:**

Upon award the Town is required to report names of nonresident (out of state) Contractors to the State of Connecticut, Department of Revenue Services (DRS) to ensure that Employment Taxes and other applicable taxes are being paid by Contractors. **A single surety bond for 5% of the entire contract price is required to be filed with DRS by any unverified nonresident prime or general contractor (if awarded) where the contract price for the project is \$250,000 or more.** The contractor will be required to promptly furnish to the Town a copy of the Form AU-968 - Certificate of Compliance issued by the State of Connecticut, DRS. See State of Connecticut Notice SN 2012 (2).

19. Bidder shall include on a sheet(s) attached to its proposal a complete disclosure of all past and pending mediation, arbitration and litigation cases that the bidder or its principals (regardless of their place of employment) have been involved in for the most recent five years. Please include a statement of the issues in dispute and their resolution. Acceptability of Bidder based upon this disclosure shall lie solely with the Town.
20. Bidder or its principals, regardless of their place of employment, shall not have been convicted of, nor entered any plea of guilty, or nolo contendere, or otherwise have been found civilly liable or criminally responsible for any criminal offense or civil action. Bidder shall not be in violation of any State or local ethics standards or other offenses arising out of the submission of bids or proposals, or performance of work on public works projects or contracts.
21. Municipal construction projects are exempt from Federal Excise Taxes, as well as, State of Connecticut Sales, Use and Service Taxes and should not be include in the Bidder's proposal.
22. After award of Contract, Owner will require the Contractor's Schedule of Values, which shall be submitted at the preconstruction meeting. The Schedule of Values must accurately reflect job costs and include a complete breakdown of material and labor costs.
23. Prevailing Wage Rates:

Wage Rate Determination for this Project from the State of Connecticut is included in the bid documents. Certified payrolls for site labor shall be filled out weekly and submitted monthly to the Town on the correct State form (See Project Manual). The Town reserves the right to, without prior notice, audit payroll checks given to works on site in order to ascertain that wages and fringe benefits are being paid as required by the State of Connecticut. Contractor to comply with Connecticut General Statutes Section 31-53, as amended. Please make special note of the State requirement to adjust wage and fringe benefit rates on each July 1st following the original published rates. These revised rates are available via the internet. See State material attached.

NOTE that bidder is to include in its bid proposal all costs required by such annual increases in the PREVAILING RATES. No Escalation Clauses are to be included in the bidder's proposal and no Escalation Clauses will be in the Contract Agreement. Bidder is to anticipate any future increases and include these costs in its quotation.

Contractor's invoices will not be paid if certified payrolls are incomplete, incorrect or not received in a timely manner.

All Apprentices must be registered with the State of Connecticut and their number shall not exceed the number allowed by law. Otherwise, all workers must be paid at least the Journeyman rate listed including benefits.

OSHA SAFETY AND HEALTH CERTIFICATION:

Effective July 1, 2009: Any Mechanic, Laborer, or Worker, who performs work in a classification listed on the prevailing wage rate schedule on any public works project covered under C.G.S. Section 31-53, both on site and on or in the public building, must have completed a federal OSHA Safety and Health course within the last 5 years.

The execution of the Contract by the Bidder binds it to all applicable State Labor Laws and Regulations.

All other statutory laws, to the extent they are required to be incorporated into a contract by statute, are hereby deemed fully incorporated herein and in the Contract.

Violation of Prevailing Wage Law requirements may cause Contract to be terminated and the Owner reserves its rights if such termination is required.

24. Each Bidder shall submit a list of similar projects completed within the last three years. In order to be eligible for consideration, the Bidder must have successfully completed a minimum of five (5) similar projects within the last three (3) years. Please provide project name and contact information for project coordinator (name, title, address, phone number). Please also provide contract value.
25. For technical questions regarding this Bid, please contact David Sacchitella, Building Superintendent, at (860) 652-7706 or dave.sacchitella@glastonbury-ct.gov. For administrative questions regarding this Bid, please contact Mary F. Visone, Purchasing Agent at (860) 652-7588 or email purchasing@glastonbury-ct.gov. All questions, answers, and/or addenda, as applicable will be posted on the Town's website at www.glastonbury-ct.gov. (Upon entering the website click on Bids & RFP's). The request must be received at least three (3) days prior to the advertised response deadline. **It is the respondent's responsibility to check the website for addenda prior to submission of any bid/proposal.**

IMPORTANT:

Failure to comply with general rules may result in disqualification of the Bidder.

01.00 WORKMANSHIP, MATERIALS AND EMPLOYEES

- 01.01 Wherever in this contract the word “Engineer” is used, it shall be understood as referring to the Building Superintendent of the Town of Glastonbury acting personally or through any assistants duly authorized.
- 01.02 The entire work described herein shall be completed in accordance with the plans and specifications to the full intent and meaning of the same. Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and material shall be of good quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.
- 01.03 The wording “furnish”, “install”, “construct”, “furnish and install”, or any similar terms, unless specifically noted to the contrary, shall include all labor, materials, water, tools, equipment, light, power, transportation, and any other services required for the completion of the work.
- 01.04 The Contractor shall at all times enforce strict discipline and good order among his employees, and shall seek to avoid employing on the work any unfit person or anyone not skilled in the work assigned to him.

02.00 SUPERINTENDENT

- 02.01 The Contractor shall keep on the work during its progress, in the absence of the Contractor, a competent Superintendent. The Superintendent shall be acceptable to the Engineer and shall fully represent the Contractor. All directions given to the Superintendent shall be binding as if given to the Contractor.

03.00 PRECONSTRUCTION MEETING

- 03.01 A Preconstruction Meeting will be held with the Engineer, Contractor, and any other interested parties prior to commencing any work. The Engineer shall arrange the meeting based on a mutually convenient time.

04.00 PERMITS

- 04.01 All permits, licenses, and fees required for the performance of the Contract work shall be secured and paid for by the Contractor. The local building permit fees will be waived.

05.00 PROPERTY ACCESS

- 05.01 The Contractor shall take all proper precautions to protect from injury or unnecessary interference, and provide proper means of access to abutting property where the existing access is cut off by the Contractor.
- 05.02 The Contractor shall take all proper precautions to protect persons from injury or unnecessary inconvenience and leave an unobstructed way along the public and private places for travelers, vehicles, and access to hydrants.

05.03 The Contractor shall make arrangements with the adjacent property owners for such trespass as he may reasonably anticipate in the performance of the work. All such arrangements shall be reported, in writing, to the Engineer.

06.00 PROTECTION OF THE PUBLIC AND OF WORK AND PROPERTY

06.01 The Contractor shall continuously maintain adequate protection of all work from damage, and shall take all reasonable precautions to protect the Town from injury or loss arising in connection with the Contract.

06.02 The Contractor shall adequately protect adjacent private and public property as provided by law and the Contract Documents.

06.03 The Contractor shall make good any damage, injury, or loss of work and to the property of the Town resulting from lack of reasonable protective precautions.

06.04 The School building involved will be unoccupied during the Summer Break and fully operational after **August 15, 2014**. The Contractor may be required to adjust his work schedule should the work have an adverse impact on operations. There will be no modification of the bid price should a schedule adjustment be required.

07.00 EXISTING IMPROVEMENTS

07.01 The Contractor shall conduct his work so as to minimize damage to existing improvements designated to remain. Except where specifically stated otherwise in the specifications, drawings, or as directed by the Engineer, it will be the responsibility of the Contractor to restore to their original condition, as near as practical, all improvements on public or private property. This shall include:

- a. Property within and adjacent to the work area such as shrubs, walks, driveways, fences, etc.
- b. Utility mains, ducts, poles, and services. The Contractor is hereby notified that utilities, if/where shown on the plans, are at approximate locations. These locations are subject to possible errors in the source of information and errors in transcription. The Contractor shall make certain of the exact location of all mains, ducts, poles, and services prior to excavation.

08.00 SEPARATE CONTRACTS

08.01 The Engineer reserves the right to let other contracts in connection with this work. The 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. Wherever work being done by the Town of Glastonbury forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Engineer to secure the completion of the various portions of the work.

09.00 INSPECTION OF WORK

09.01 The Town shall provide sufficient personnel for the inspection of the work.

- 09.02 The Engineer shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for such access and for inspection.
- 09.03 If the specifications or the Engineer's instructions require any work to be specially tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection and, if the inspection is by another authority other than the Engineer, of the date fixed for such inspection. Inspections by the Engineer shall be made promptly. If any work should be covered up without approval or consent of the Engineer, it must, if required by the Engineer, be uncovered for examination and properly restored at the Contractor's expense.
- 09.04 Re-inspection of any work may be ordered by the Engineer. If such work is found to be in accordance with the Contract Documents, the Town shall pay the cost of re-inspection and replacement. If such work is not in accordance with the Contract Documents, the Contractor shall pay such cost.

10.00 RIGHT TO INCREASE OR DECREASE WORK

- 10.01 The Town shall have the right to increase or decrease the amount of work herein specified as may be required.

11.00 RIGHT OF ENGINEER TO STOP WORK FOR WEATHER CONDITIONS

- 11.01 Should the work, in the opinion of the Engineer, be in danger by reason of inclemency of weather, or could not be finished in time to prevent such danger, the Contractor shall cease operations upon order of the Engineer, and shall not resume them until ordered to do so by the Engineer when the weather conditions are favorable. The Contractor shall, upon such orders, discontinue work, remove all materials or appliances for or in use upon the work, and place the premises in proper condition for use by the public during the time the work is suspended as herein provided, without cost to the Town.

12.00 CONTRACTOR TO BE RESPONSIBLE FOR IMPERFECT WORK OR MATERIALS

- 12.01 Any faithful work or imperfect material that may be discovered before the acceptance and the payment of the work shall be corrected upon the order of the Engineer. The acceptance and payment of the work does not in any manner relieve the Contractor of his obligation to construct work in the proper manner and the use of materials herein specified.

13.00 TOWN MAY NOTIFY CONTRACTOR IF WORK IS NOT CARRIED ON SATISFACTORILY

- 13.01 If, in the opinion of the Engineer, the Contractor is not proceeding with the work at a sufficient rate of progress so as to finish in the time specified, or has abandoned said work, or is not complying with the terms and stipulations or the Contract and specifications, the Engineer may serve notice on the Contractor to adopt such methods as will ensure the completion of the work in the time specified.
- 13.02 If, within five days after the Engineer has notified the Contractor that his work is not being carried on satisfactorily as before mentioned, the Engineer shall have the right to annul the

Contract and manage the work under the direction of the Engineer, or re-let, for the very best interest of the Town as a new contract, the work under said new Contract shall be considered the responsibility of the defaulting Contractor.

- 13.03 Additional costs incurred over and above the original Contract shall be borne by the Performance Bond.

14.00 DEDUCTIONS FOR UNCORRECTED WORK

- 14.01 If the Engineer deems it inexpedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made there for.

- 14.02 The Contractor shall promptly remove from the premises all materials condemned by the Engineer as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute his own work in accordance with the Contract and without expense to the Town, and shall bear the expense of making good all work by other contractors destroyed or damaged by such removal or replacement.

- 14.03 If the Contractor does not remove such condemned work and materials as promptly as possible after written notice, the Engineer may remove them and store the materials at the expense of the Contractor.

15.00 CLEANING UP

- 15.01 The Contractor must remove all debris of every description as the work progresses and leave the surroundings in a neat and orderly condition to the satisfaction of the Engineer.

- 15.02 Upon completion, and before acceptance and final payment, the Contractor shall remove from the site all equipment, forms, surplus material, rubbish and miscellaneous debris and leave the site in a neat and presentable condition.

16.00 ROYALTIES AND PATENTS

- 16.01 The Contractor shall pay all royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and shall save the Town of Glastonbury harmless from loss on account hereof, except that the Town of Glastonbury shall be responsible for all such loss when a particular manufacturer, product, or process is specified by the Town of Glastonbury.

17.00 ERRORS OR CONFLICT IN DRAWINGS AND SPECIFICATIONS

- 17.01 The Contractor shall immediately notify the Owner/Engineer should he find any errors or conflicts in the contract documents. The Owner/Engineer shall render his interpretation or instruction in writing on the items as soon as possible.

- 17.02 Any work undertaken by the Contractor containing possible errors or conflicts will be done at his own risk unless he has received prior written approval from the Owner/Engineer.

17.03 The Contractor shall be responsible for estimating and supplying all quantities, and where clarification or additional information is required, a request in writing to the Owner/Engineer shall be made. No extra charge or compensation will be allowed the Contractor unless there is a change in scope or dimension of the project resulting in need for extra material, equipment and/or labor. Said differences are to be handled under Article 18.

18.00 EXTRA WORK AND EXTRA COST

18.01 The Owner, without invalidating the contract documents, may order extra work or make changes by altering, adding to or deducting from the work, the contract price being adjusted accordingly. All such work shall be executed under the conditions of the original contract except that any claim of extension of time caused thereby shall be adjusted at the time of ordering the change.

18.02 No extra work or change shall be performed unless in pursuance of a written order from the Owner/Engineer, with the agreed price prior to the commencement of the work, and no claim for an addition to the contract price shall be valid unless so ordered.

18.03 The value of any such work or change shall be determined, in one or more of the following ways:

- a) By estimate and acceptance on a lump sum.
- b) By unit prices named in the contract or subsequently agreed upon.
- c) By cost and percentage or by cost and a final fee.

19.00 SUBSTITUTIONS

19.01 The Contractor shall use materials as specified unless material list is of an open nature. Material other than specified will be permitted only after written application, including four (4) copies of specifications, is made by the Contractor and written approval received from the Engineer or Owner.

The material installed in the job site shall be new and of the quality specified.

The manufacturer's recommendation shall be followed for the installation of all equipment.

20.00 PRODUCT SUBMITTALS

20.01 Prior to ordering materials, the Contractor shall submit submittals as specified in the detailed specification sections. Three (3) copies of the submittals shall be forwarded to the Engineer for review and approval.

20.02 Submittals shall indicate specification Section for each product. Submittals not containing all the required information shall be returned to the contractor for re-submittal.

21.00 OWNER'S ACCEPTANCE

21.01 Within seven (7) days of the Contractor's notification that the installation is substantially complete, the Owner's authorized representative shall inspect the installation. The Owner, with the Contractor, shall take necessary steps to inspect the installation. Upon completion of the inspection, the Owner or the Owner's authorized representative may either accept the work

outright or prepare a "Punch List" that upon completion by the Contractor and acceptance by the Owner will signify final acceptance provided that all other applicable terms and provisions of the Contract have been completed to the Owner's satisfaction.

22.00 RESPONSIBILITY FOR MAINTENANCE

22.01 It will be the Contractor's responsibility to maintain the work as specified in the detailed specifications during the warranty period.

23.00 SERVICE BY THE CONTRACTOR

23.01 The Contractor shall maintain the work as specified during the warranty period.

24.00 WARRANTY

24.01 The guarantee shall be as specified in the respective sections of the specification.

24.02 The Contractor shall be responsible for the repair and/or replacement of all defective work and materials. All repair work shall be completed in a timely fashion.

24.04 Should the Contractor not respond promptly, the Owner may take any action he deems necessary to repair the defect and prevent further damage to his property, including the hiring of another contractor, or the repairing of such a defect with material supplied by the Contractor. In this event, the Contractor shall be liable for expenses incurred and property damages suffered by the Owner.

01.00 NOTICE TO CONTRACTOR

- 01.01 Intent of Contract: The intent of the Contract is to prescribe a complete work or improvement which the Contractor undertakes to do, in full compliance with the specifications, plans, special provisions, proposal and Contract. The Contractor shall perform all work in close conformity with the plans or as modified by written orders, including the furnishing of all materials, supplies, transportation, labor, and all other things necessary to the satisfactory prosecution and completion of the project.

The scope of the work shall include all labor, materials and equipment needed to provide and install, replacement gym floors and associated equipment and materials, complete and ready for use, as described in the plans and specifications for Smith Middle School Gym Floor Replacements.

02.00 COMMUNICATIONS

- 02.01 All notices, demands, requests, instructions, approvals, proposals, and claims must be in writing.
- 02.02 Any notice to, or demand upon, the Contractor shall be sufficiently given if delivered at the office of the Contractor stated on the signature page of the Agreement (or at such other office as the Contractor may, from time to time, designate) in a sealed, postage-prepaid envelope or delivered with charges prepaid to any telegraph company for transmission, in each case addressed to such office.
- 02.03 All papers required to be delivered to the Town shall, unless otherwise specified in writing to the Contractor, be delivered to the Building Superintendent, 2143 Main Street, Glastonbury, CT 06033, and any notice to, or demand upon, the Town shall be delivered at the above address in a sealed, postage-prepaid envelope addressed to such office or to such other representatives of the Town, or to such other address as the Town may subsequently specify in writing to the Contractor for such purpose.
- 02.04 Any such notice shall be deemed to have been given as of the time of actual delivery or, in the case of mailing, when the same should have been received in due course of post.

03.00 INSURANCE

The Bidder shall, at its own expense and cost, obtain and keep in force during the entire duration of the Project or Work the following insurance coverage covering the Bidder and all of its agents, employees and sub-contractors and other providers of services and shall name the **Town and Board of Education, its employees and agents as an Additional Insured** on a primary and non-contributory basis to the Bidders Commercial General Liability and Automobile Liability policies. These requirements shall be clearly stated in the remarks section on the Bidders Certificate of Insurance. Insurance shall be written with Carriers approved in the State of Connecticut and with a minimum Best's Rating of A-. In addition, all Carriers are subject to approval by the Town. Minimum Limits and requirements are stated below:

1) Worker's Compensation Insurance:

- Statutory Coverage
- Employer's Liability
- \$500,000 each accident/\$500,000 disease-policy limit/\$500,000 disease each employee
- A Waiver of Subrogation shall be provided

2) Commercial General Liability:

- Including Premises & Operations, Products and Completed Operations, Personal and Advertising Injury, Contractual Liability and Independent Contractors.
- Limits of Liability for Bodily Injury and Property Damage
Each Occurrence \$1,000,000
Aggregate \$2,000,000 (The Aggregate Limit shall apply separately to each job.)
- A Waiver of Subrogation shall be provided

3) Automobile Insurance:

- Including all owned, hired, borrowed and non-owned vehicles
- Limit of Liability for Bodily Injury and Property Damage:
Per Accident \$1,000,000
- A Waiver of Subrogation shall be provided

The Bidder shall direct its Insurer to provide a Certificate of Insurance to the Town before any work is performed. The Contractor shall be responsible to notify the Town 30 days in advance with written notice of cancellation or non-renewal. The Certificate shall evidence all required coverage including the Additional Insured and Waiver of Subrogation. The Bidder shall provide the Town copies of any such policies upon request.

INDEMNIFICATION

To the fullest extent permitted by law, the Bidder shall indemnify and hold harmless the Town and its consultants, agents, and employees from and against all claims, damages, losses and expenses, direct, indirect or consequential (including but not limited to fees and charges of engineers, attorneys and other professionals and court and arbitration costs) to the extent arising out of or resulting from the performance of the Bidder's work, provided that such claim, damage, loss or expense is caused in whole or in part by any negligent act or omission by the Bidder, or breach of its obligations herein or by any person or organization directly or indirectly employed or engaged by the Bidder to perform or furnish either of the services, or anyone for whose acts the Bidder may be liable.

04.00 WORK BY OTHERS

04.01 Private utilities, contractors, developers or other parties may be expected to be working within the Contract area during this Contract. It shall be the responsibility of the contractor to coordinate his work with the work being done by others in order that the construction shall proceed in an efficient and logical manner. The Contractor shall have no claim or claims whatever against the Town, the Engineer, or other parties due to delays or other reasons caused by the work by others or his failure to coordinate such work.

05.00 CONTRACTOR'S WORK AND STORAGE AREA

05.01 The Contractor shall contact the Town to determine if any specific locations will be designated, or gain its approval prior to using any area for storage of equipment, materials and trailers during the period of this Contract. The Contractor shall confine his work/storage area to the limits as designated or approved and shall be responsible for the security of the work/storage area. Upon completion of the Contract, the Contractor shall remove all equipment and materials, except as otherwise specified, and restore the site to its original condition as approved by the Engineer and at no cost to the Town.

06.00 DISPOSAL AREA

06.01 The Tryon Street Bulky Waste Facility will be available to the Contractor, at no charge, for disposal of materials that are accepted at that facility. No materials containing lead-based paint of any level shall be dumped at the Tryon Street facility. The Contractor is required to obtain a disposal area for all other unsuitable or surplus materials at no cost to the Town.

07.00 DUST CONTROL

07.01 During the progress of the work, the Contractor shall conduct his operations and maintain the area of his activities so as to minimize the creation and dispersion of dust. If the Engineer decides that it is necessary to use water or calcium chloride for more effective dust control, the Contractor shall furnish and spread the material, as directed, without additional compensation.

08.00 PROTECTION OF EXISTING UTILITIES

08.01 Before starting any excavation, the Contractor shall submit to the Engineer plans or details showing the proposed method the Contractor will use to support and protect all existing utilities during construction. The furnishing of such plans and details shall not serve to relieve the Contractor of any responsibility for the proper conduct of the work.

08.02 There will be no extra payment for submitting plans or details for supporting and protecting all existing utilities during construction.

09.00 TIME FOR COMPLETION/NOTICE TO PROCEED

09.01 Within five (5) days after the date of the Notice of Award, the Contractor must provide the appropriate insurance certificates to the Town Purchasing Agent and shall be issued a Notice to Proceed and a Purchase Order prior to initiating any work on the project.

09.02 Work shall commence within twenty (20) days of the date of the Notice to Proceed/Purchase Order or when the school recesses for Summer Break, whichever comes first.

09.03 After the work has begun, it will continue in an orderly fashion and shall be fully completed within 61 consecutive days from the date of commencement. The Engineer reserves the right to extend the contract an additional thirty (30) days by mutual written agreement.

09.04 Weather permitting, it is the intention of the Town to have all work required under this Contract completed no later than August 15, 2014. In no case, however, shall the work be completed any later than September 12, 2014.

09.05 Because the facilities may remain open during the installation period, the Contractor shall make every reasonable effort to complete the installation as expeditiously as possible. Any work after August 15, 2014 will have to be performed as the building use schedule allows.

10.00 MEASUREMENT AND PAYMENT

10.01 All direct, indirect, or incidental costs of work and/or services required by these specifications shall be included in the Lump Sum price.

10.02 Monthly progress payments will be made, based on the approved Schedule of Values, for work that has progressed in accordance with the contract documents, subject to a deduction of five percent (5%) of the amount of the application for payment to be retained by the Owner until completion of the entire contract in an acceptable manner and two and one half percent (2.5%) until the applicable one year warranty period has expired and all required inspections have been completed and results have been submitted and approved by the Engineer.

11.00 COMPLIANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS

11.01 This award of bid is subject to the conformance of the Contractor to all Federal, State, and Local laws, statutes, regulations, ordinances or other requirements that are applicable to the type of work contained in these specifications.

12.00 CONTRACTOR COMPLIANCE FORM

12.01 All contractors performing work on school property will be required to complete and submit, for approval, the "Contractor Compliance Form" issued by the Glastonbury Public Schools. A copy is provided as part of this document.

ATTENTION CONTRACTOR

- APPROVED FORM FOR YOUR FILES-NOTE ANY COMMENTS BOTTOM OF PAGE 2 - APPROVAL REQUIREMENTS
- APPLICATION DENIED-SEE BOTTOM PAGE 2

GLASTONBURY PUBLIC SCHOOLS

OFFICE OF DISTRICT SAFETY OFFICER

Dr. Kenneth R. Roy
 Director of Environmental Health & Safety
 330 Hubbard St.
 Glastonbury, CT 06033-3099

Telephone: (860) 652-7200 Ext. 2002
 Fax: (860) 652-7275
 E-mail: royk@glastonburyus.org

CONTRACTOR COMPLIANCE FORM

Notice to Contractors:

In concert with, but not limited to, all OSHA General Industry and Construction standards, EPA, NFPA, AHERA, and building codes, contractors conducting work activities at/on any Glastonbury Public School District property are required to provide the following information:

NOTICE: THIS FORM MUST BE COMPLETED AND APPROVED 3 DAYS PRIOR TO COMMENCING ANY OPERATIONS

Once approved, the form will be returned to the originator. Approval is conditional relative to noted specifications by GPS Safety Officer/Director of Environmental Health and Safety.

1. Project Information:

Project Description:		
Location:		
Start Date:	Completion Date:	
Contractor Safety Officer	Phone:	Fax: Email:

Permit Prepared By:

Date Prepared:

Project Scope	Yes	No	Comments
Confined Spaces*	<input type="checkbox"/>	<input type="checkbox"/>	
Electrical Work**	<input type="checkbox"/>	<input type="checkbox"/>	
Forklift	<input type="checkbox"/>	<input type="checkbox"/>	
Hazardous Materials	<input type="checkbox"/>	<input type="checkbox"/>	
Ladders/Scaffolds	<input type="checkbox"/>	<input type="checkbox"/>	
Respirators	<input type="checkbox"/>	<input type="checkbox"/>	
Rigging/Lifting	<input type="checkbox"/>	<input type="checkbox"/>	
Welding***	<input type="checkbox"/>	<input type="checkbox"/>	
Asbestos Management****	<input type="checkbox"/>	<input type="checkbox"/>	
Other	<input type="checkbox"/>	<input type="checkbox"/>	

* Contractors need to secure, complete and submit a "Confined Space Permit" from the Director of Environmental Health and Safety for approval 3 days PRIOR to doing any work in a Permit Required Confined Space Area.

** Contractors need to secure, complete and submit an "energized Electrical Work Permit" from the Director of Environmental Health and Safety for approval 3 days PRIOR to doing any energized electrical work.

*** Contractors are required to secure, complete and submit a "Hot Work Permit" from the Director of Environmental Health and Safety for approval 3 days PRIOR to doing any hot work (e.g. welding, etc.)

**** Contractors need to secure the Asbestos Management Plan form the Director of Facilities prior to all construction/demolition work.

2. Provide district safety officer with Material Safety Data Sheets (MSDS) for all materials used on-site.

LIST EITHER CHEMICAL OR TRADE NAME OF EACH ATTACHED MSD SHEET BELOW

3. In cases of hazardous waste production, a written disposal plan must be provided to and approved by the District Safety Director, 5 days prior to initiation of work for those materials disposed of on site.
4. All contractors and/or their personnel are required **to be in compliance with all EPA, NFPA, AHERA and OSHA and other appropriate safety standards** when working on site (under the direction of a contractor's project supervisor).
5. All on-site activities carried out by contractors, and/or their employees, must be done in such a manner as to **maintain a safe working environment** for all Glastonbury Public Schools' employees, students and visitors.
6. Contractor employees found to be in non-compliance **may be removed from the District worksite** by the District Safety Officer.
7. Contractors found to be in non-compliance will be subject to **forfeiture of payment and/or contract termination**.
8. The district reserves the right to inspect the worksite **at any time** for safety compliance.
9. The district may require review of a contractors OSHA 200/300 log for a period of three (3) previous years.

Please type company name and address below

	<p>RETURN TO:</p> <p>Dr. Kenneth Roy, Safety Compliance Officer</p> <p>E-mail: royk@glastonburyus.org</p>
--	--

By signature, the contractor agrees to adhere to all components and the spirit of this document.

Signature of Contractor	Title	Date
-------------------------	-------	------

<p>INTERNAL USE ONLY</p> <p>APPROVAL STATUS: <input type="checkbox"/> YES <input type="checkbox"/> NO</p> <p>GPS Safety Officer: _____ Date: _____</p> <p>c: <input type="checkbox"/> Maintenance Office File <input type="checkbox"/> Contractor <input type="checkbox"/> Safety Officer Roy <input type="checkbox"/> Building Principal/Supervisor <input type="checkbox"/> (Other) <input type="checkbox"/> (Other)</p>	<p><u>NOTE TO CONTRACTOR:</u> APPROVAL CONTINGENT ON THE FOLLOWING ITEMS:</p>
---	--

(revised 8/11)

TOWN OF GLASTONBURY
Smith Middle School Gym Floor Replacements
LIST OF DRAWINGS

BID #GL-2014-26

Below is the list of drawings associated with the bid specifications

- SMITH MIDDLE SCHOOL - Gym Floor Color Layout

**TOWN OF GLASTONBURY
Smith Middle School Gym Floor Replacements
BID PROPOSAL**

BID #GL-2014-26

Due Date May 22, 2014 @ 2:00 P.M.

Proposal of _____
(hereinafter called "Bidder"), organized and existing under the laws of the State of _____
_____, doing business as _____
_____.

To the Town of Glastonbury (hereinafter called "Town").

In compliance with your Invitation to Bid, the Bidder hereby proposes to furnish and/or services as per Bid Number GL-2014-26 in strict accordance with the Bid Documents, within the time set forth therein, and at the prices stated below.

By submission of this bid, the Bidder certifies, and in the case of a joint bid each party thereto certifies as to their own organization that this bid has been arrived at independently without consultation, communication, or agreement as to any matter relating to this bid with any other Bidder or with any competitor.

The Bidder acknowledges receipt of the following Addenda:

Addendum #1 _____

Addendum #2 _____

Addendum #3 _____

It is the responsibility of the bidder to check the Town's website for any Addendum before submitting the bid.

**TOWN OF GLASTONBURY
Smith Middle School Gym Floor Replacements
BID PROPOSAL**

BID #GL-2014-26

Due Date May 22, 2014 @ 2:00 P.M.

TOTAL BASE BID AMOUNT:

1.0 Furnish and install Replacement Gym Floors at Smith
Middle School Main and Auxiliary Gyms

1.1 Main Gym

\$ _____

1.2 Auxiliary Gym

\$ _____

as specified in the Plans and Spec's for Bid GL-2014-26.

TOTAL \$ _____

(NUMERIC BID AMOUNT)

TOTAL BASE BID: \$ _____
(WRITTEN BID AMOUNT)

UNIT PRICING: Unit pricing shall include of all materials, all direct or indirect expenses of the Contractor or Sub-Contractor, profit, insurance bonding and any applicable taxes. The same unit price shall apply whether the work is added or deducted.

- Item 1-Polyurethane rubber flooring (all layers to bare concrete), removal and disposal. \$ _____ per square foot
- Item 2-Installed new flooring product including moisture barrier. \$ _____ per square foot

CODE OF ETHICS

I/We have reviewed a copy of the Town of Glastonbury's Code of Ethics and agree to submit a Consultant Acknowledgement Form if I/We are selected. Yes _____ No _____*

***Bidder is advised that effective August 1, 2003, the Town of Glastonbury cannot consider any bid or proposal where the Bidder has not agreed to the above statement.**

Respectfully submitted:

Type or Print Name of Individual

Doing Business as (Trade Name)

Signature of Individual

Street Address

Title

City, State, Zip Code

Date

Telephone Number/Fax Number

E-Mail Address

SS# or TIN#

(Seal -- If bid is by a Corporation)
Attest

Other Items Required with Submission of Bid Proposal

The following bid checklist describes items required for inclusion with the above-referenced bid proposal package. It is provided for the convenience of the bidders and, therefore, should not be assumed to be a complete list.

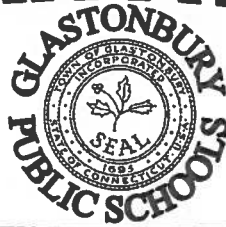
- _____ Bid Bond (10% of total bid amount).
- _____ List of five (5) similar projects completed within last three (3) years.
- _____ Acknowledgement of Addendums in Bid Proposal (as applicable).
- _____ Acknowledgement of Code of Ethics in Bid Proposal.
- _____ Sealed bids, one original and one copy.
- _____ Disclosure of past and pending mediation, arbitration and litigation cases that the Bidder or its principals have been involved in for the most recent five years (if applicable).
- _____ Copy of Bidder's Contractor's License (State of Connecticut).

It is the responsibility of the Respondent to clearly mark the outside of the bid envelope with the Bid Number, Date and Time of Bid Opening, and it also THE RESPONSIBILITY OF THE BIDDER TO CHECK THE TOWN'S WEBSITE BEFORE SUBMITTING BID FOR ADDENDUMS POSTED PRIOR TO BID OPENING.

Name of Bidder: _____

SCHOOL YEAR AT A GLANCE

2013



2014

SCHOOL BEGINS: AUG 28 Grs. 7-12
SCHOOL BEGINS: AUG 29 Grs. K-6

*SCHOOL ENDS: JUNE 16th

M	T	W	TH	F
AUGUST 2013				
			Gr. 7-12 3 days	
			Gr. K-6 2 days	
		1	2	
5	6	7	8	9
12	13	14	15	16
19	20	21	22	23
26	27	28	29	30

SEPTEMBER 2013					19 DAYS
2	3	4	5	6	
9	10	11	12	13	
16	17	18	19	20	
23	24	25	26	27	
30					

OCTOBER 2013					22 DAYS
	1	2	3	4	
7	8	9	10	11	
14	15	16	17	18	
21	22	23	24	25	
28	29	30	31		

NOVEMBER 2013					18 DAYS
				1	
4	5	6	7	8	
11	12	13	14	15	
18	19	20	21	22	
25	26	27	28	29	

DECEMBER 2013					15 DAYS
2	3	4	5	6	
9	10	11	12	13	
16	17	18	19	20	
23	24	25	26	27	
30	31				

JANUARY 2014					Gr 7-12 20 DAYS	Gr. K-6 21 DAYS
		1	2	3		
6	7	8	9	10		
13	14	15	16	17		
20	21	22	23	24		
27	28	29	30	31		

AUG 26	Teacher Work Day-Convocation
AUG 27	Teacher Professional Development
◇ AUG 28	FIRST DAY OF SCHOOL, GRADES 7-12 Teacher Work Day, Grades K-6
◓ Aug 29	FIRST DAY OF SCHOOL, GRADES K-6 FULL DAY
SEP 2	Labor Day
SEP 5	Rosh Hashanah
OCT 14	Columbus Day
NOV 5	Election Day - No School for Students
NOV 27	Early Dismissal
NOV 28-29	Thanksgiving Recess
DEC 23- JAN 1	Holiday Recess (Includes New Year's Day)
JAN 20	Martin Luther King Day
JAN 16-22	Grades 7-12: Mid-Term Exams (Early Dismissal Grades 9-12 only)
△ JAN 23	Gr. 7-12 No School for Students Teacher Work Day, Grades 7-12
FEB 17-18	Winter Recess (Includes Presidents' Day)
APR 14-18	Spring Recess (Includes Good Friday)
MAY 26	Memorial Day
Last 4 Days	Final Exams, Grades 7-12 (Early Dismissal Grades 7-12)
Last Day	Projected Last Day - June 9 Early Dismissal Grades K-12
	Projected Teacher Work Day - June 10 Teacher Work Day will be the first work day following the last day for students.
□	SCHOOL CLOSED

M	T	W	TH	F
18 DAYS				
FEBRUARY 2014				
	3	4	5	6
10	11	12	13	14
17	18	19	20	21
24	25	26	27	28

21 DAYS					MARCH 2014
	3	4	5	6	7
10	11	12	13	14	
17	18	19	20	21	
24	25	26	27	28	
31					

17 DAYS					APRIL 2014
	1	2	3	4	
7	8	9	10	11	
14	15	16	17	18	
21	22	23	24	25	
28	29	30			

21 DAYS					MAY 2014
			1	2	
5	6	7	8	9	
12	13	14	15	16	
19	20	21	22	23	
26	27	28	29	30	

6 DAYS					JUNE 2014
2	3	4	5	6	
9	10	11	12	13	
16	17	18	19	20	
23	24	25	26	27	
30					

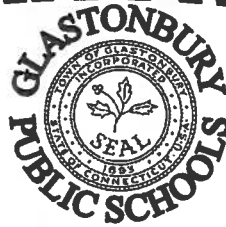
***SCHOOL ENDS JUNE 16th**

*If weather or other emergencies require the closing of school, the lost days will be made up by extending the school year in June up to 9 days.
If additional days are needed, they will be taken from the Spring Recess, beginning April 14.

Approved: Approved 12.12.2011
REVISED: 01.30.2012

SCHOOL YEAR AT A GLANCE

2014



2015

SCHOOL BEGINS: AUG 27 Grs. 7-12
SCHOOL BEGINS: AUG 28 Grs. K-6

Projected Last Day – June 9, 2015

M	T	W	TH	F
AUGUST 2014				
			Gr. 7-12 3 days	
			Gr. K-6 2 days	
		1		
4	5	6	7	8
11	12	13	14	15
18	19	20	21	22
25	26	27	28	29

M	T	W	TH	F
SEPTEMBER 2014				
20 DAYS				
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26
29	30			

M	T	W	TH	F
OCTOBER 2014				
22 DAYS				
		1	2	3
6	7	8	9	10
13	14	15	16	17
20	21	22	23	24
27	28	29	30	31

M	T	W	TH	F
NOVEMBER 2014				
17 DAYS				
3	4	5	6	7
10	11	12	13	14
17	18	19	20	21
24	25	26	27	28

M	T	W	TH	F
DECEMBER 2014				
17 DAYS				
1	2	3	4	5
8	9	10	11	12
15	16	17	18	19
22	23	24	25	26
29	30	31		

M	T	W	TH	F
JANUARY 2015				
			Gr 7-12 18 DAYS	
			Gr. K-6 19 DAYS	
		1	2	
5	6	7	8	9
12	13	14	15	16
19	20	21	△	23
26	27	28	29	30

AUG 25	Teacher Work Day-Convocation
AUG 26	Teacher Professional Development
◇ AUG 27	FIRST DAY OF SCHOOL, GRADES 7-12 Teacher Work Day, Grades K-6
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SEP 1	Labor Day
SEP 25	Rosh Hashanah
OCT 13	Columbus Day
NOV 4	Election Day - No School for Students
NOV 26	Early Dismissal
NOV 27-28	Thanksgiving Recess
DEC 24-	Holiday Recess
JAN 2	(Includes New Year's Day)
JAN 19	Martin Luther King Day
JAN 15-21	Grades 7-12: Mid-Term Exams (Early Dismissal Grades 9-12 only)
△ JAN 22	Gr. 7-12 No School for Students Teacher Work Day, Grades 7-12
FEB 16-17	Winter Recess (Includes Presidents' Day)
APR 3	Good Friday
APR 13-17	Spring Recess
MAY 25	Memorial Day
Last 4 Days	Final Exams, Grades 7-12 (Early Dismissal Grades 7-12)
Last Day	Projected Last Day – June 9 Early Dismissal Grades K-12
	Projected Teacher Work Day – June 10 Teacher Work Day will be the first work day following the last day for students.

M	T	W	TH	F
18 DAYS				
FEBRUARY 2015				
	2	3	4	5
	9	10	11	12
	16	17	18	19
	23	24	25	26
	27			

M	T	W	TH	F
22 DAYS				
MARCH 2015				
	2	3	4	5
	9	10	11	12
	16	17	18	19
	23	24	25	26
	30	31		

M	T	W	TH	F
16 DAYS				
APRIL 2015				
			1	2
	6	7	8	9
	13	14	15	16
	20	21	22	23
	27	28	29	30

M	T	W	TH	F
20 DAYS				
MAY 2015				
				1
	4	5	6	7
	11	12	13	14
	18	19	20	21
	25	26	27	28
	29			

M	T	W	TH	F
DAYS 7				
JUNE 2015				
	1	2	3	4
	8	9	10	11
	15	16	17	18
	22	23	24	25
	29	30		

***SCHOOL ENDS JUNE 9**

*If weather or other emergencies require the closing of school, the lost days will be made up by extending the school year in June up to 8 days.
If additional days are needed, they will be taken from the Spring Recess, beginning April 13.

Project: Smith Middle School Gym Floor Replacement

**Minimum Rates and Classifications
for Building Construction**

ID# : B 19055

**Connecticut Department of Labor
Wage and Workplace Standards Division**

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number: GL-2014-26

Project Town: Glastonbury

State#:

FAP#:

Project: Smith Middle School Gym Floor Replacement

CLASSIFICATION	Hourly Rate	Benefits
1a) Asbestos Worker/Insulator (Includes application of insulating materials, protective coverings, coatings, & finishes to all types of mechanical systems; application of firestopping material for wall openings & penetrations in walls, floors, ceilings	35.00	27.41
<hr/>		
1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
<hr/>		
2) Boilermaker	35.24	25.01

As of: Wednesday, April 23, 2014

Project: Smith Middle School Gym Floor Replacement

3a) Bricklayer, Cement Mason, Concrete Finisher (including caulking), Stone Masons	32.50	27.46 + a
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3b) Tile Setter	33.05	23.28
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3c) Terrazzo Mechanics and Marble Setters	31.69	22.35
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3d) Tile, Marble & Terrazzo Finishers	25.95	19.82
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3e) Plasterer	32.50	27.46
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-----LABORERS-----

As of: Wednesday, April 23, 2014

Project: Smith Middle School Gym Floor Replacement

4) Group 1: Laborers (common or general), acetylene burners, carpenter tenders, concrete specialists, wrecking laborers, fire watchers.	27.05	17.80
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4a) Group 2: Mortar mixers, plaster tender, power buggy operators, powdermen, fireproofers/mixer/nozzleman (Person running mixer and spraying fireproof only)..	27.30	17.80
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4b) Group 3: Jackhammer Operators/Pavement Breaker, mason tender (brick) and mason tender (cement/concrete)	27.55	17.80
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4c) **Group 4: Pipelayers (Installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license) (the pipelayer rate shall apply only to one or two employees of the total crew who primary task is to actually perform the mating of pipe sections) P6 and P7 rate is \$26.80	27.30	17.80
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4d) Group 5: Air track operators, Sand blasters	27.80	17.80
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4e) Group 6: Nuclear toxic waste removers, blasters	30.05	17.80
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Project: Smith Middle School Gym Floor Replacement

4f) Group 7: Asbestos/lead removal and encapsulation (except it's removal from mechanical systems which are not to be scrapped)	28.05	17.80
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4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew	27.55	17.80
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4h) Group 9: Top men on open air caisson, cylindrical work and boring crew	27.05	17.80
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4i) Group 10: Traffic Control Signalman	16.00	17.80
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5) Carpenter, Acoustical Ceiling Installation, Soft Floor/Carpet Laying, Metal Stud Installation, Form Work and Scaffold Building, Drywall Hanging, Modular-Furniture Systems Installers, Lathers, Piledrivers, Resilient Floor Layers.	30.45	21.65
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5a) Millwrights	30.78	22.15
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As of: **Wednesday, April 23, 2014**

Project: Smith Middle School Gym Floor Replacement

6) Electrical Worker (including low voltage wiring) (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	37.60	22.22+3% of gross wage
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7a) Elevator Mechanic (Trade License required: R-1,2,5,6)	47.15	26.785+a+b
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-----LINE CONSTRUCTION-----

Groundman	24.37	6.5%+10.04
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Linemen/Cable Splicer	44.30	6.5%+17.70
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8) Glazier (Trade License required: FG-1,2)	34.18	17.75
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As of: Wednesday, April 23, 2014

Project: Smith Middle School Gym Floor Replacement

9) Ironworker, Ornamental, Reinforcing, Structural, and Precast Concrete Erection	33.50	28.98
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----OPERATORS----

Group 1: Crane handling or erecting structural steel or stone, hoisting engineer 2 drums or over, front end loader (7 cubic yards or over); work boat 26 ft. and over. (Trade License Required)	36.05	21.55 + a
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Group 2: Cranes (100 ton rate capacity and over); Backhoe/Excavator over 2 cubic yards; Piledriver (\$3.00 premium when operator controls hammer). (Trade License Required)	35.73	21.55 + a
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Group 3: Excavator; Backhoe/Excavator under 2 cubic yards; Cranes (under 100 ton rated capacity), Grader/Blade; Master Mechanic; Hoisting Engineer (all types of equipment where a drum and cable are used to hoist or drag material regardless of motive power of operation), Rubber Tire Excavator (Drott-1085 or similar); Grader Operator; Bulldozer Fine Grade. (slopes, shaping, laser or GPS, etc.). (Trade License Required)	34.99	21.55 + a
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Group 4: Trenching Machines; Lighter Derrick; Concrete Finishing Machine; CMI Machine or Similar; Koehring Loader (Skooper).	34.60	21.55 + a
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As of: Wednesday, April 23, 2014

Project: Smith Middle School Gym Floor Replacement

Group 5: Specialty Railroad Equipment; Asphalt Paver; Asphalt Reclaiming Machine; Line Grinder; Concrete Pumps; Drills with Self Contained Power Units; Boring Machine; Post Hole Digger; Auger; Pounder; Well Digger; Milling Machine (over 24" Mandrell)	34.01	21.55 + a
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Group 5 continued: Side Boom; Combination Hoe and Loader; Directional Driller; Pile Testing Machine.	34.01	21.55 + a
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Group 6: Front End Loader (3 up to 7 cubic yards); Bulldozer (rough grade dozer).	33.70	21.55 + a
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Group 7: Asphalt roller, concrete saws and cutters (ride on types), vermeer concrete cutter, Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under Mandrell).	33.36	21.55 + a
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Group 8: Mechanic, grease truck operator, hydroblaster; barrier mover; power stone spreader; welding; work boat under 26 ft.; transfer machine.	32.96	21.55 + a
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Group 9: Front end loader (under 3 cubic yards), skid steer loader regardless of attachments, (Bobcat or Similar): forklift, power chipper; landscape equipment (including Hydroseeder).	32.53	21.55 + a
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As of: Wednesday, April 23, 2014

Project: Smith Middle School Gym Floor Replacement

Group 10: Vibratory hammer; ice machine; diesel and air, hammer, etc. 30.49 21.55 + a

Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment. 30.49 21.55 + a

Group 12: Wellpoint operator. 30.43 21.55 + a

Group 13: Compressor battery operator. 29.85 21.55 + a

Group 14: Elevator operator; tow motor operator (solid tire no rough terrain). 28.71 21.55 + a

Group 15: Generator Operator; Compressor Operator; Pump Operator; Welding Machine Operator; Heater Operator. 28.30 21.55 + a

As of: Wednesday, April 23, 2014

Project: Smith Middle School Gym Floor Replacement

Group 16: Maintenance Engineer/Oiler.	27.65	21.55 + a
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Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator.	31.96	21.55 + a
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Group 18: Power safety boat; vacuum truck; zim mixer; sweeper; (Minimum for any job requiring a CDL license).	29.54	21.55 + a
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-----PAINTERS (Including Drywall Finishing)-----

10a) Brush and Roller	30.62	17.75
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10b) Taping Only/Drywall Finishing	31.37	17.75
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Project: Smith Middle School Gym Floor Replacement

10c) Paperhanger and Red Label	31.12	17.75
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10e) Blast and Spray	33.62	17.75
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11) Plumber (excluding HVAC pipe installation) (Trade License required: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2)	39.31	26.27
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12) Well Digger, Pile Testing Machine	33.01	19.40 + a
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13) Roofer (composition)	31.70	17.36
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14) Roofer (slate & tile)	32.20	17.36
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15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	33.84	31.18
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16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G-9)	39.31	26.27
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-----TRUCK DRIVERS-----

17a) 2 Axle	27.88	18.27 + a
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17b) 3 Axle, 2 Axle Ready Mix	27.98	18.27 + a
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17c) 3 Axle Ready Mix	28.03	18.27 + a
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17d) 4 Axle, Heavy Duty Trailer up to 40 tons	28.08	18.27 + a
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17e) 4 Axle Ready Mix	28.13	18.27 + a
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17f) Heavy Duty Trailer (40 Tons and Over)	28.33	18.27 + a
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17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	28.13	18.27 + a
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18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	39.76	19.87 + a
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19) Theatrical Stage Journeyman	22.22	6.53
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Project: Smith Middle School Gym Floor Replacement

Welders: Rate for craft to which welding is incidental.

**Note: Hazardous waste removal work receives additional \$1.25 per hour for truck drivers.*

***Note: Hazardous waste premium \$3.00 per hour over classified rate*

- Crane with 150 ft. boom (including jib) - \$1.50 extra*
- Crane with 200 ft. boom (including jib) - \$2.50 extra*
- Crane with 250 ft. boom (including jib) - \$5.00 extra*
- Crane with 300 ft. boom (including jib) - \$7.00 extra*
- Crane with 400 ft. boom (including jib) - \$10.00 extra*

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyman instructing and supervising the work of each apprentice in a specific trade.

- The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.*
- Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.*
- It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.*
- The annual adjustments will be posted on the Department of Labor's Web page: www.ct.gov/dol. For those without internet access, please contact the division listed below.*
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.*
- All subsequent annual adjustments will be posted on our Web Site for contractor access.*
- Contracting Agencies are under no obligation pursuant to State labor law to pay any increase due to the annual adjustment provision.*

As of: Wednesday, April 23, 2014

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Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)

Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

~~Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clause (29 CFR 5.5 (a) (1) (ii)).

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

As of: Wednesday, April 23, 2014

Mercury Abatement Specifications

**Smith Middle School
Main Gymnasium and Auxiliary Gymnasium**

Town of Glastonbury

Glastonbury, CT

May 2, 2014



Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

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SECTION 011000 - GENERAL REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Contractor use of site and premises.
- B. Work Sequence.
- C. Owner Occupancy.

1.2 CONTRACTOR QUALIFICATIONS

- A. All bidders shall submit a record of prior experience in asbestos and lead paint abatement project, listing no less than three (3) completed jobs in the past year, with all projects of similar size and scope. The Contractor shall list the experience and training of the site supervisor and all on-site workers. The information that should be included is as follows:
 - 1. Project Name and Address
 - 2. Owner's Name and Address
 - 3. Architect/Owner's Authorized Representative
 - 4. Contract Amount
 - 5. Date of Completion
 - 6. Extras and Change Orders
- B. **The Contractor selected must appear on the approved list of Asbestos Contractors on file at the State of Connecticut Department of Public Health (CTDPH).**
- C. Submit a written statement regarding whether the Contractor has ever been found out-of-compliance with federal or state asbestos/Hazardous Material and/or lead regulations pertaining to worker protection, removal, transport, or disposal.
- D. Award of this Contract may not necessarily be based solely on the submitted lowest Base Bid amount. The Owner reserved the right to award this Contract to the Bidder who best meets all contractor qualifications.

1.3 CONTRACTORS USE OF SITE AND PREMISES

- A. Limit use of site and premises as follows:
 - 1. Owner occupancy.
 - 2. Work by Owner.
 - 3. Use of site and premises by public.

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- B. Coordinate use of the premises under direction of Owner.
- C. Assume full responsibility for protection and safekeeping of products under this Contract.

1.4 WORK PHASING

- A. Work under this project may be performed in phases to accommodate Owner's/Architect's requirements and remaining construction phases. Coordinate abatement schedule and operations with the Owner/Architect/Owner's Authorized Representative.
- B. The Owner may occupy portions of the building for their normal activities during the Work. The Contractor is responsible for creating a phasing plan to accommodate Owner occupancy needs and remaining construction and renovation work.

1.5 OWNER'S OPERATIONS

- A. Schedule the Work to accommodate this requirement.
- B. Maintain means of egress.
- C. Coordinate Work with the Owner, the General Contractor, and the Owner's Authorized Representative.
- D. Maintain the fire alarm and fire detection systems active at all time during construction.
- E. Maintain permanent means of egress during construction. Provide and maintain temporary means of egress as required by Fire Marshall.

1.6 CLOSEOUT AND PUNCH LIST

- A. The Contractor shall carefully check his/her own work and that of any Subcontractor as the work is being performed. Unsatisfactory work shall be corrected immediately.
- B. When the Contractor determines that he/she is substantially complete, that is, has less than one percent of his Contract remaining to be completed, he/she shall prepare for submission to the Owner's Authorized Representative, a list of items to be completed or corrected. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all work in accordance with the Contract Documents.

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- C. Upon receipt of the Contractor's list of items to be completed or corrected, the Owner's Authorized Representative will promptly make a thorough inspection and prepare a "punch list" setting forth in accurate detail any items on the Contractor's list and any additional items that are not acceptable.
- D. When the "punch list" has been prepared, the Owner's Authorized Representative will arrange a meeting with the Contractor to identify and explain all punch list items and answer questions on the work that must be completed before final acceptance.
- E. The Contractor shall correct all "punch list" items or shall cause the correction of the "punch list" items within a time frame to be established when the "punch list" is made. The time frame for the completion of the "punch list" shall not exceed the completion date of the Contract. Should the "punch list" not be completed within the specified time frame, the Owner may invoke the rights given under the General Conditions.
- F. The Owner's Authorized Representative shall not be expected to inspect any area more than once for the preparation of the "punch list" items. If, during an inspection, the Owner's Authorized Representative discovers five (5) or more deficient conditions, then the area shall be declared "Not Ready" for Inspection.
- G. All inspections and sampling required for hazardous materials abatement compliance will be performed by the Owner's Authorized Representative.

1.7 CLEANING

- A. Throughout the construction period, the Contractor shall maintain the building and the site free of rubbish, debris, surplus materials, and other items not required for the Work. Remove such material from the site daily to prevent accumulations. Remove all construction debris from work areas, and remove all hazardous waste and asbestos waste as required by the most current federal, state, and local regulations and the requirements of the specifications.

1.8 ADDITIONAL GENERAL REQUIREMENTS

- A. The Contractor shall employ a competent and English-speaking Asbestos Abatement Supervisor with at least three (3) years of experience on projects of similar scope and magnitude. The Supervisor shall be responsible for all work involving hazardous materials abatement as described in the specifications and defined in the applicable regulations, and have full time daily supervision of the same. The Supervisor shall be the "Competent Person" as defined by OSHA regulations
- B. The Contractor shall allow the work of this contract to be inspected, if required, by local, state, federal, and any other authorities having jurisdiction over such

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work. The Contractor shall immediately notify the Owner and Owner's Authorized Representative and shall maintain written evidence of such inspection for review by the Owner and Owner's Authorized Representative.

- C. The Contractor shall incur the cost of all fines resulting from regulatory non-compliance as issued by federal, state, and local agencies. The Contractor shall incur the cost of all work requirements mandated by federal, state, and local agencies as a result of regulatory non-compliance or negligence.
- D. The Contractor shall immediately notify the Owner and Owner's Authorized Representative of the delivery of all permits, licenses, certificates of inspection, of approval or occupancy, etc., and any other such instruments required under codes by authorities having jurisdiction, regardless of to whom issued, and shall cause them to be displayed to the Owner and Owner's Authorized Representative for verification and recording.
- E. **Wages and contributions to be paid to the laborers to be employed on the project shall not be less than those established by a schedule issued by the Connecticut Department of Labor, Wage & Workplace Standards Division (prevailing wage rates) in accordance with Connecticut General Statutes Section 31-53 inclusive. The Contractor must submit Certified Payroll with his/her invoice for payment.**

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 011000

SECTION 011600 - SCHEDULING & PHASING

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. The abatement work for this project may be conducted in phases. The work of this project shall begin immediately upon receipt of the "Notice to Proceed" from the Owner/Construction Manager. A Pre-Construction Meeting shall be scheduled by the Owner/Construction Manager and must be attended by the Contractor and any Sub-Contractors. The assigned Site Supervisor(s) must also attend this meeting.
- B. A working schedule for each phase of work shall be presented by the Contractor at the Pre-Construction Meeting. Variations, amendments, and corrections to the presented schedule will be discussed and the Owner/Construction Manager will inform the Contractor of additions or changes in the scheduling requirements for the project.
- C. As a result of the Pre-Construction Meeting, the Contractor shall submit a revised schedule no later than three (3) business days from the Pre-Construction Meeting. Upon approval from the Owner/Architect/Construction Manager, the Contractor will receive a "Notice to Proceed" with the work of the Contract.
- D. Refer to all other applicable sections of the specification for coordination with other trades. The abatement contractor shall coordinate work with all other activities at this occupied site.

1.2 TIME FOR COMPLETION AND WORKING HOURS

- A. Upon award of contract from the Owner, the Contractor shall immediately order materials, supplies, and components for the work of this project.
- B. The Contractor shall begin the work immediately upon receipt of the written "Notice to Proceed" from the Owner. The date of the commencement of the work is termed the "Construction Start Date." The Contractor will be required to complete all work of this Contract within the time period stipulated in the finalized schedule. The last day in the schedule is termed as "Contract Completion Date."
- C. If conditions arise that are beyond the control of the Contractor and force delays in the performance of the Work, the Owner/Construction Manager shall be immediately notified. The Contractor shall state the reason for the delay and shall estimate the expected duration of the delay. Any application for an extension of the Contract completion date shall be made under proper change order

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procedures. The acceptance of the cause for delay and change order is subject to the Owner's review and approval.

- D. Work hours will be established in coordination with the Owner/Architect/Construction Manager.
- E. Any extra hours or days per week worked by the Contractor or Sub-Contractors shall be at no extra cost to the Owner. Denial of extra hours or days per week by the Owner shall not be grounds for extra time allotted to the overall Contract time.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 011600

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SECTION 017700 - CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 GENERAL PROVISIONS

- A. General Provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 FINAL CLEANING

- A. Unless otherwise specified under Sections of this Specification, the Contractor shall perform final cleaning operations as herein specified prior to final inspection.
- B. Maintain the project site free from accumulations of waste, debris and rubbish caused by operations. At the completion of the work, remove waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean all sight-exposed surfaces; leave the project clean and ready for work of others under separate contract.
- C. Cleaning shall include all surfaces, interior and exterior, in which the Contractor has had access.
- D. Use only those materials that will not create hazards to health or property.

1.3 ABATEMENT CLOSEOUT DOCUMENTS

- A. Submit to the Owner and Owner's Authorized Representative, final completed copies of the Waste Shipment Records (WSR), signed by all transporters and the designated disposal site owner/operator.
- B. Submit to the Owner's Authorized Representative copies of all Contractors' logs and all worker certifications.
- C. Submit to the Owner's Authorized Representative copies of all OSHA personal air monitoring results.
- D. Final payment will be withheld until receipt of all the above documentations and Certified Payroll to Owner's/Owner's Authorized Representative's satisfaction.

PART 2 - PRODUCTS

NOT USED

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PART 3 - EXECUTION

NOT USED

END OF SECTION 017700

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SECTION 028416 – MERCURY ABATEMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings, general provisions of the Contract, including General and Supplementary Conditions and Division 1 General Requirements, are a part of this Section and shall be binding on all Contractors and Subcontractors who perform this work.
- B. Related Information:
 - 1. Limited Hazardous Materials Inspection Report dated March 25, 2014, Revised April 7, 2014

1.2 SUMMARY OF WORK

- A. The scope of work shall be as necessary to facilitate the installation of new flooring over existing concrete flooring at the Smith Middle School in Glastonbury, CT.
- B. Work of this Section includes, but is not necessarily limited to worker protection disposal and engineering controls. The Contractor will be responsible for the establishment of containment prior to conducting removal of rubber flooring in both gyms. Upon completion of floor removal, the Contractor shall conduct final cleaning to meet proposed dust standards included herein and properly disposing of all generated mercury waste material. The floor area includes an estimated 9,000 SF of mercury-containing gym floor in both gyms. Total mercury concentration average in the gym floor is **2.93 ppm** and waste characterization testing results were none detected (mg/L) for mercury via TCLP analysis.

1.3 DEFINITIONS

- A. The following definitions relative to mercury removal will apply:
 - 1. ABATEMENT - Procedures to control airborne and waste release from mercury-containing materials.
 - 2. WORK AREA - A regulated area as defined by applicable sections of OSHA regulation 29 CFR 1910 and 1926 where planned disturbance of mercury containing materials are performed which is isolated by physical boundaries to prevent the spread of gases, vapors, fumes, dusts and mists resulting from disturbances. The regulated area shall comply with requirements of regulated area for demarcation, access, respirators, prohibited activities, competent persons and exposure assessments and monitoring.

3. CLEAN ROOM - An uncontaminated area or room which is a part of the worker decontamination enclosure with provisions for storage of workers' street clothes and protective equipment.
4. CURTAINED DOORWAY - A device to allow ingress and egress from one area to another while permitting minimal air movement between the areas. Two curtained doorways spaced a minimum of six feet apart can form an airlock.
5. DEBRIS - Material in a defined area or on a defined surface which is loose and/or not homogeneous to the substrate.
6. DECONTAMINATION ENCLOSURE SYSTEM - A series of connected areas, with curtained doorways between any two adjacent areas, for the decontamination of workers and equipment. A decontamination enclosure system always contains at least one airlock and is adjacent and connected to the regulated area, where possible.
7. EQUIPMENT ROOM - A contaminated area or a room which is part of the worker decontamination enclosure with provisions for storage of contaminated clothing and equipment.
8. HEPA FILTER - A high efficiency particulate air (HEPA) filter in compliance with ANSI Z9.2-1979.
9. HEPA VACUUM EQUIPMENT - Vacuum equipment with a HEPA filter system for filtering the effluent air from the unit.
10. NEGATIVE AIR PRESSURE EQUIPMENT - A portable local exhaust system equipped with HEPA filtration used to create negative pressure in a regulated area (negative with respect to adjacent unregulated areas) and capable of maintaining a constant, low velocity air flow into regulated areas from adjacent unregulated areas.
11. PERMISSABLE EXPOSURE LIMIT (PEL) - The current permissible exposure limit (PEL) for workers who may be occupationally exposed to mercury gases, vapors, fumes, dusts or mists resulting from planned disturbances is 0.1 mg/m³.
12. REGULATED AREA - An area established by the employer to demarcate where work is conducted and any adjoining area where mercury gases, vapors, fumes, dusts or mists and waste from such work accumulate, and a work area within which airborne concentrations of material exceed or there is a reasonable possibility that they may exceed the PEL.
13. SHOWER ROOM - A room between the clean room and the equipment room in the work decontamination enclosure with hot and cold running water and suitably arranged for employee showering during decontamination. The shower room is located in an airlock between the contaminated area and the clean area.

1.4 REGULATIONS AND STANDARDS

- A. The following regulations and standards of federal and state agencies apply to the worker protection, regulated disturbance, regulated work areas, and waste disposal and are made part of this Specification by reference.

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1. Resource Conservation and Recovery Act (RCRA) – 40 CFR Part 261, Subpart C.
2. RCRA – 40 CFR Part 273.
3. Comprehensive Environmental Response, Compensation, and Liability Act (Superfund Law).
4. Department of Transportation (DOT) regulations – Pipeline and Hazardous Materials Safety Administration regulation 49 CFR 100-185 as applicable.
5. Occupational Safety and Health Administration (OSHA)
 - a. 29 CFR 1910.120 – Hazardous Waste Operations and Emergency Response.
 - b. 29 CFR 1910.132 – Personal Protection Equipment (PPE)
 - c. 29 CFR 1910.134 – Respiratory Protection
 - d. 29 CFR 1910.252 – General Requirements for Cutting or Breaking
 - e. 29 CFR 1910.1000 – Air contaminants
 - f. 29 CFR 1910.1200 - Hazard Communication
 - g. 29 CFR 1926.55 – Gases, Vapors, Fumes, Dusts, and Mists
 - h. 29 CFR 1926.57 – Ventilation
 - i. 29 CFR 1926.65 - - Hazard Communication
 - j. 29 CFR 1926.95 – Criteria for PPE
 - k. 29 CFR 1926.353 – Ventilation and Protection during cutting

1.5 SUBMITTALS

- A. The Contractor shall submit to the Owner's Authorized Representative and architect the following submittals prior to start of work:
 1. Proposed transporter for mercury-containing hazardous waste generated as part of the project, including licenses as required.
 2. Proposed disposal/recycling facility proposed for mercury-containing hazardous waste generated as part of the project.

1.6 CONTRACTOR'S WORKER PROTECTION RESPONSIBILITY

- A. The Contractor shall develop and implement a written health and safety program for their employees involved in hazardous waste operations. The program shall be designed to identify, evaluate, and control safety and health hazards, and provide for emergency response for hazardous waste operations.
 1. The written safety and health program shall incorporate the following:
 - a. An organizational structure;
 - b. A comprehensive work plan;
 - c. A site-specific safety and health plan;
 - d. Safety and health training program;
 - e. Medical surveillance program;

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- f. The employer's standard operating procedures for safety and health; and
 - g. Any necessary interface between general program and site specific activities.

- B. The written safety and health program shall be made available to any contractor or subcontractor or their representative who will be involved with the hazardous waste operation; to employees; to employee designated representatives; to OSHA personnel, and to personnel of other Federal, state, or local agencies with regulatory authority over the site.

- C. Medical Surveillance Program
 - 1. Each employer should institute a medical surveillance program for all employees who are or will be exposed to airborne concentrations of mercury vapor or the dust of its inorganic compounds above the permissible exposure limit.
 - 2. The program should provide each employee with an opportunity for biological monitoring and medical examination performed by or under the supervision of a licensed physician and provided during the employee's normal working hours without cost to the employee.

- D. Training
 - 1. Each employer who has a workplace in which elemental mercury or its inorganic compounds where airborne mists, fumes, vapors, or dusts may be accidentally or intentionally produced and released in the work environment due to handling, storage, or use should:
 - a. Inform employees who work or will be working with mercury or its inorganic compounds occasionally of potential health hazards;
 - b. Inform employees of the correct work and storage practices, written emergency procedures to be followed in case of spills or leaks, and personal protective equipment necessary
 - c. Provide equipment and/or materials necessary to control mercury-containing spills or leaks in quantity sufficient to control the entire amount of mercury or compound used;
 - d. Provide written procedures and means for removal of mercury or its compounds from body surfaces and working surfaces, machinery, or tools to be used later for other work activities;
 - e. Assure that the permissible exposure limit is not exceeded in the work environment.
 - f. Instruct employees in proper housekeeping practices, decontamination procedures;
 - g. Emphasize the possibility of ingesting mercury by hand-to-mouth contact when good personal hygiene is not practiced;

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- h. Inform employees of measures necessary to protect them from exposures in excess of the permissible exposure limit. The wearing and turning-in of protective clothing should be stressed;
- i. Instruct employees as to the purpose, proper use, and limitations of respirators;
- j. Provide employees with a description of, and explain the purposes for, the medical surveillance program;
- k. Inform employees where written procedures and hazard information are available on the premises.

E. Personal Protective Equipment

- 1. Where respirators are required under 1910.1000(e) and 1910.134, the employer should select and provide an appropriate respirator in accordance with requirements of the regulations.
- 2. Minimum Respiratory Requirements. The Contractor is solely responsible for ensuring that the following minimum respiratory protection requirements are met throughout the project:
 - a. Respiratory protection shall meet the requirements of OSHA as presented in 29 CFR 1910.134 titled "Respiratory Protection" The following table 1 has been obtained from 1910.134(d)(3)(i)(A) and incorporated as follows:
 - b. **Assigned Protection Factors (APFs)** Employers must use the assigned protection factors listed in Table 1 to select a respirator that meets or exceeds the required level of employee protection. When using a combination respirator (e.g., airline respirators with an air-purifying filter), employers must ensure that the assigned protection factor is appropriate to the mode of operation in which the respirator is being used.

Table 1 -- Assigned Protection Factors⁵

Type of respirator ^{1, 2}	Quarter mask	Half mask	Full face-piece	Helmet/hood	Loose-fitting face-piece
1. Air-Purifying Respirator	5	³ 10	50	.....	.....
2. Powered Air-Purifying Respirator (PAPR)	.....	50	1,000	⁴ 25/1,000	25
3. Supplied-Air Respirator (SAR) or Airline Respirator					
• Demand mode	.....	10	50	.....	.....
• Continuous flow mode	.....	50	1,000	⁴ 25/1,000	25
• Pressure-demand or other positive-pressure mode	.....	50	1,000	.....	.....

Type of respirator ^{1, 2}	Quarter mask	Half mask	Full face-piece	Helmet/hood	Loose-fitting face-piece
4. Self-Contained Breathing Apparatus (SCBA)					
• Demand mode	10	50	50	.....
• Pressure-demand or other positive-pressure mode (e.g., open/closed circuit)	10,000	10,000	.....

Notes:

¹Employers may select respirators assigned for use in higher workplace concentrations of a hazardous substance for use at lower concentrations of that substance, or when required respirator use is independent of concentration.

²The assigned protection factors in Table 1 are only effective when the employer implements a continuing, effective respirator program as required by this section (29 CFR 1910.134), including training, fit testing, maintenance, and use requirements.

³This APF category includes filtering face-pieces, and half masks with elastomeric face-pieces.

⁴The employer must have evidence provided by the respirator manufacturer that testing of these respirators demonstrates performance at a level of protection of 1,000 or greater to receive an APF of 1,000. This level of performance can best be demonstrated by performing a WPF or SWPF study or equivalent testing. Absent such testing, all other PAPRs and SARs with helmets/hoods are to be treated as loose-fitting face-piece respirators, and receive an APF of 25.

⁵These APFs do not apply to respirators used solely for escape. For escape respirators used in association with specific substances covered by 29 CFR 1910 subpart Z, employers must refer to the appropriate substance-specific standards in that subpart. Escape respirators for other IDLH atmospheres are specified by 29 CFR 1910.134 (d)(2)(ii).

Recommendations for Respirator Usage at Mercury Concentrations Above Permissible Exposure Limit	
Airborne Concentration of Mercury	Recommended Respirator
1. Fume, dust, vapor or mist in excess of 5 mg/m ³	(A) A type C supplied-air respirator with a full face-piece operated in pressure-demand or other positive pressure mode, Or (B) A self-contained breathing apparatus with a full face-piece operated in pressure-demand or other positive pressure mode.

Recommendations for Respirator Usage at Mercury Concentrations Above Permissible Exposure Limit	
Airborne Concentration of Mercury	Recommended Respirator
2. Fume, dust, vapor or mist less than 5 mg/m ³	(A) A type C supplied-air respirator with a full face-piece operated in pressure-demand or other positive pressure mode, Or (B) A self-contained breathing apparatus with a full face-piece operated in pressure-demand or other positive pressure mode, Or (C) Cartridge type respirator, when approved (TC) and available.

Only those respiratory protection devices which have been approved by the National Institute of Occupational Safety and Health under the provisions of 30 CFR Part 11 should be used.

F. Protective Clothing

1. Where protective clothing is required under 1910.132, the employer should provide and ensure that employees wear appropriate, clean, protective clothing, such as, but not limited to, coveralls, smocks, aprons, gloves, shoes, hair covers or hats, in the following situations:
 - a. Where employees may be exposed to concentrations of mercury above the permissible exposure limit;
 - b. Where the skin, hair, or clothing of employees may have repeated contact with accumulations of mercury fume, dust, mist, or solutions.
2. The employer should launder, maintain, and/or dispose of all contaminated personal clothing discarded by employees.
3. The removal of mercury fume or dust from protective clothing by blowing or shaking should be prohibited.
4. The employer should ensure that all protective clothing is removed in change rooms and deposited in marked laundry bags.
5. The employer should inform any person who launders or cleans mercury-contaminated protective clothing of the potentially harmful effects of exposure to mercury and of precautions to take, such as not airing or shaking the clothing to remove mercury fume or dust.
6. Street clothing and street footwear should not be permitted in the workplace whenever airborne mercury concentrations exceed the permissible exposure limit or potential contacts with mercury or its inorganic compounds exist. Contaminated clothing or footwear should not leave the work area except in packages for laundering, decontamination, or disposal.

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G. Housekeeping

1. All exposed surfaces should be maintained free of accumulation of mercury which, if dispersed, would result in airborne concentrations in excess of the permissible exposure limit or in a visible dust cloud.
2. Dry sweeping and the use of compressed air for the cleaning of floors and other surfaces is *prohibited*. If vacuuming is used, the exhaust air should be properly filtered to prevent generation of airborne mercury concentrations. The vacuum must be a machine dedicated to mercury decontamination only.
3. Persons not wearing respiratory protective equipment should be excluded from work areas until cleanup has been completed.
4. All hand contact points (such as tools, door knobs, table tops, etc.) should be maintained free of mercury contamination. If this is impossible, gloves should be provided.
5. Used wipe rags, floor cleaning mops, or paper towels used on mercury contaminated surfaces shall be treated as potentially contaminated.

H. Personal Hygiene Facilities and Practices

1. All food, beverages, tobacco products, nonfood chewing products, and unapplied cosmetics shall be prohibited in work areas where there is a likelihood that skin or clothing may come in contact with fume, dust, mist, or solutions of mercury or where the airborne concentrations of mercury are above the permissible exposure limit.
2. The employer shall ensure that employees or visitors who work in or need access to work areas wash their hands, forearms, face, and neck before each occasion of eating, drinking, smoking, or applying cosmetics and at the end of each work shift.
3. Employers should provide an adequate number of lavatories, maintained and provided with soap, hand brushes, and towels. Employees should be instructed in using the hand brushes on fingernails submerged in wash water. Used paper or fabric towels should be considered and treated as contaminated.
4. Where employees wear protective clothing or equipment, or both, change rooms shall be provided in accordance with 1910.141(e).
5. Rings, watches, wallets, combs, and other personal items usually carried on a person should not be brought in contact with mercury or its compounds if at all possible. The frames of safety glasses or personal glasses should be carefully cleaned after each shift of work. Contact lenses should not be used in areas where eyes may be exposed to vapors, dusts, or mists containing mercury.
6. The contractor must make every attempt to keep the containment temperature at or below 68°F.

PART 2 – PRODUCTS

2.1 MATERIALS AND EQUIPMENT

- A. Deliver all materials in the original packages, containers, or bundles bearing the name of the manufacturer and the brand name and product technical description.
- B. Fire-retardant polyethylene sheet in a roll size to minimize the frequency of joints shall be delivered to the job site with factory label indicating 4 or 6 mil.
- C. Tape or adhesive spray will be capable of sealing joints in adjacent polyethylene sheets and for attachment of polyethylene sheet to finished or unfinished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including use of amended water.
- D. Impermeable containers are to be used to receive and retain any mercury-containing or contaminated materials until disposal at an acceptable disposal site. (The containers shall be labeled in accordance with OSHA Standard 29 CFR 1910.1200.) Containers must be both air and watertight.
- E. Labels and signs, as required by OSHA Standard 29 CFR 1910.1200, will be used.

2.2 TOOLS AND EQUIPMENT

- A. Provide suitable tools for preparing floor for new surface as specified elsewhere in architectural specifications.
- B. The Contractor's air monitoring professional shall have air monitoring equipment of type and quantity to monitor operations and conduct personnel exposure surveillance per OSHA requirements.
- C. The Contractor shall have available sufficient inventory or dated purchase orders for materials necessary for the job including protective clothing, respirators, filter cartridges, polyethylene sheeting of proper size and thickness, tape and air filters.
- D. The Contractor shall have available shower stalls and plumbing to support same to include sufficient hose length and drain system or an acceptable alternate.
- E. Exhaust air filtration system units shall contain HEPA filter(s) capable of sufficient air exhaust to create negative pressure of -0.02 inches of water within enclosure with respect to outside area. Equipment shall be checked for proper operation by smoke tubes or differential pressure gauge before the start of each shift and at least twice during the shift. Adequate exhaust air shall be provided for a minimum of four (4) air changes per hour within the enclosure. No air movement system or air filtering equipment shall discharge unfiltered air outside.

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- F. Vacuum units, of suitable size and capacities for the project, shall have HEPA filter(s) capable of trapping and retaining at least 99.97 percent of all monodispersed particles of 0.3 micrometers in diameter or larger. They must be dedicated to mercury decontamination only.

PART 3 – EXECUTION

3.1 WORK AREA PREPARATION-GENERAL

- A. Shut down electrical power in and through the work area, including receptacles and light fixtures. Under no circumstances during the decontamination procedures will lighting fixtures be permitted to be operating. Provide GFCI devices, temporary power, and temporary lighting installed in compliance with the applicable electrical codes. All installations are to be made by a licensed electrician.
- B. Shut down and/or isolate heating, cooling, and ventilation air systems or zones to prevent contamination of airborne mercury gases, mists, fumes, vapors, or dusts to other areas of the structure. During the work, vents within the work area shall be "criticalled" with duct tape and polyethylene sheeting.
- C. The Owner shall be responsible for removing minimally personal possessions and other equipment from the work areas.
- D. Seal off all openings, including, but not limited to, windows, corridors, doorways, skylights, ducts, grills, diffusers, and any other penetration of the work areas, with fire-retardant polyethylene sheeting a minimum of six (6) mils thick, sealed with duct tape. This includes doorways and corridors which will not be used for passage during work areas and occupied areas. Protect fire alarm systems including sensors.
- E. Pre-clean fixed objects within the work areas, using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and enclose with a minimum six (6) mil plastic sheeting sealed with duct tape.
- F. Clean the proposed work areas using HEPA vacuum equipment or wet cleaning methods as appropriate. Do not use methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters.
- G. After HEPA vacuum cleaning, cover fixed walls with two (2) layers of four (4) mil fire-retardant polyethylene sheeting to the floor level (full height, or at contractors option a lower ceiling can be established consisting of one layer of (6) mil fire-retardant polyethylene sheeting on hangers). Coordinate containment with exposed systems and components (E.G. exposed ductwork and mechanical systems, structural framing, etc.).

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- H. Where fixed walls are not used, apply two layers of six (6) mil fire-retardant polyethylene sheeting to a rigid framework of wood, metal, or PVC. All overlaps shall be sealed with tape or spray adhesive. A ceiling of the area is required to limit spread of airborne mercury gases, mists, fumes, vapors, or dusts from containment.
- I. The Contractor and the Owner's Authorized Representative shall visually inspect barriers several times daily to assure effective seal and the Contractor shall repair defects immediately.
- J. Create pressure differential between work areas and uncontaminated areas by the use of acceptable negative air pressure equipment sufficient to provide four (4) air changes per hour and at least -0.02 inches-water gauge.
- K. Maintain emergency and fire exits from the work areas, or establish alternate exits satisfactory to fire officials.

3.2 DECONTAMINATION SYSTEM

- A. The Contractor shall establish contiguous to the work area, a decontamination enclosure consisting of equipment room, shower room, and clean room in series. The only access between contaminated and uncontaminated areas shall be through this decontamination enclosure.
- B. Access between rooms in the decontamination system shall be through double flap curtained openings. The clean room, shower, and equipment room shall be completely sealed ensuring that the sole source of air flow through this area originates from uncontaminated areas outside the work area.
- C. The Contractor shall establish contiguous with the work area an equipment decontamination enclosure consisting of two (2) totally enclosed chambers divided by double flap curtained openings. This enclosure must be managed so as to ensure no personnel enter or exit through this unit.
- D. Occupied areas and/or building space not within the work areas shall be separated from work areas by means of airtight barriers.
- E. Construct the decontamination system with wood or metal framing, 3/8" sheathing, and cover both sides with a double layer of six (6) mil polyethylene sheeting, spray glued or taped at the joints.

3.3 FLOOR SURFACE PREPARATION

- A. The contractor shall ensure that work area preparation has been conducted in accordance with section 3.1 and 3.2 of this specification.

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- B. In accordance with architectural specifications, the Contractor shall conduct surface preparation which may result in airborne mercury gases, mists, fumes, vapors, or dusts. Dispose of any materials that have mercury contamination on them as mercury-containing waste.
- C. Continuously mist floor in area where floor is being prepared working with water or detergent solution to control dispersal of mercury gases, mists, fumes, vapors, or dusts. Wet any debris generated as necessary to keep continuously wet.
- D. Pick up waste and place in labeled hazardous waste disposal container.
- E. The Contractor shall leave the substrate in such a state as to comply with all requirements and recommendations of the manufacturer of new flooring.

3.4 OWNER'S AUTHORIZED REPRESENTATIVE RESPONSIBILITIES

- A. Visual inspection and background wipe and air samples shall be conducted by the Owner's Authorized Representative to ascertain the integrity of controls which protect the building from mercury contamination. Independently, the Contractor shall monitor the area around the work area to ascertain the protection of employees and to comply with OSHA regulations.
- B. The Owner's Authorized Representative's project monitor shall collect and analyze wipe and air samples during three time periods:
 - 1. Pre-Work Sampling Period. The Owner's Authorized Representative's project monitor shall collect a sufficient number of wipe and air samples, inside and outside of the proposed work area locations, to establish background quality conditions.
 - 2. Work Period. The Owner's Authorized Representative's project monitor may collect samples on a daily basis during the work period, when surface preparation of existing floor is conducted. A sufficient number of area samples shall be taken outside of the work area, at the exhaust of the negative pressure system, and outside of the building to judge the degree of cleanliness or contamination of the building during floor preparation activities. Additional samples may be taken inside the work area and decontamination enclosure system, at the discretion of the project monitor.
 - 3. Post-Work Period. The Owner's Authorized Representative's project monitor shall conduct wipe and air sampling following the final cleanup phase of the project, once the "no visible residue" criterion, as established by the project monitor, has been met.
- C. If the project monitor determines that the building air quality or surfaces outside the containment have become contaminated from the project, he/she shall immediately inform the Contractor to cease all operations and implement a work stoppage clean up procedure. The Contractor shall conduct a thorough cleanup of

the areas of the building designated by the Owner's Authorized Representative. The limit of $< 1.0 \mu\text{g}/\text{m}^3$ shall be used to determine air contamination.

- D. Pre-work and post-work wipe and air samples shall be collected as required to document the effectiveness of engineering controls. The limit of $< 1.0 \mu\text{g}/\text{m}^3$ shall be used to determine air contamination and the limit of $1 \mu\text{g}/100$ square centimeters shall be used to determine surface contamination.

3.5 OWNER'S AUTHORIZED REPRESENTATIVE'S INSPECTION RESPONSIBILITIES

- A. Inspections shall be conducted by the Owner's Authorized Representative throughout the progress of the project. Inspections shall be conducted in order to document the progress of the work as well as the procedures and practices employed by the Contractor.
- B. The Owner's Authorized Representative shall perform the following inspections during the course of work activities:
 - 1. Pre-commencement Inspection. Pre-commencement inspections shall be performed at the time requested by the Contractor. The Owner's Authorized Representative shall be informed 12 hours prior to the time the inspection is needed. During the course of the pre-commencement inspection, the Owner's Authorized Representative shall inspect the containment. This shall include, but not be limited to, inspection of barrier integrity, the worker decontamination facility, utilization of power sources, and location and capacity of negative air filtration devices. If, during the course of the pre-commencement inspection, deficiencies are found, the Contractor shall perform the necessary adjustments in order to obtain compliance.
 - 2. Work Area Inspections. Work area inspections shall be conducted on a periodic basis at the discretion of the Owner's Authorized Representative. During the course of the work inspections, the Owner's Authorized Representative shall observe the Contractor's work procedures, verify barrier integrity, monitor negative air filtration devices, assess project progress, and inform the Contractor of specific remedial activities if deficiencies are noted.
 - 3. Final Visual Inspection. A final visual inspection shall be conducted by the Owner's Authorized Representative, upon request of the Contractor. Following the removal of the inner layer of polyethylene sheeting and prior to final clearance, the Owner's Authorized Representative shall conduct a final visual inspection inside the work area. If residual dust or debris is identified during the course of the final inspection, the Contractor shall comply with the request of the Owner's Authorized Representative in order to render the area "dust free" of dust or visible metallic mercury.

3.6 CLEARANCE

- A. The containment barriers shall remain in place until clearance is achieved in accordance with protocol established herein.
- B. The Owner's Authorized Representative project monitor shall conduct all clearance testing inspections. Clearance sampling shall be performed no sooner than 1 hour after completion of the final cleanup to permit the dust to settle.
- C. Visual Inspection Protocol: A final visual inspection shall be conducted to verify the work has been completed and the area in which the work was performed does not contain visible dust or visible metallic mercury within the containment.
- D. Wipe Sampling: Interior sampling may be conducted to ensure that work area barriers or finish surfaces are free from dust or metallic mercury. The limit of **1 µg/100** square centimeters shall be used to determine surface contamination.
- E. Air sampling shall be performed, by the Owner's Authorized Representative project monitor, upon completion of work within containment to establish acceptable levels of $<1.0 \mu\text{g}/\text{m}^3$ prior to removing containment barriers. Air sampling shall be performed using two methods.
 - 1. Screening using a Jerome Mercury Vapor Meter or equivalent at floor level and at breathing zone within work area to characterize airborne concentrations.
- F. Retests: Should laboratory results indicate that the wipe or air sample clearance levels are exceeded upon an acceptable visual inspection, the Contractor shall repeat HEPA vacuuming and wet-wiping the entire area, **at no additional cost utilizing the methods specified above**. Retesting will be performed by the owner's authorized representative to verify compliance with the mandated levels. Contractor shall pay for all additional testing and provide, at no additional cost, a re-cleaning of an affected area until the clearance level is achieved.

3.7 WASTE DISPOSAL

- A. Disposal of non-hazardous mercury-containing material must be in compliance with the requirements of, and authorized by, the State of Connecticut, Department of Energy and Environmental Protection (CTDEEP) and with the requirements of the Resource Conservation and Recovery Act (RCRA).
- B. The Owner's Authorized Representative has performed waste characterization on existing mercury containing flooring, all waste generated as a result of removal of rubber flooring in both gyms to facilitate new floor installation shall be disposed of as non-hazardous waste in accordance with test results.

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- C. The Contractor shall segregate the following materials for disposal as non-hazardous mercury waste based on initial results of testing for leachable mercury. The following materials are not likely to leach mercury at hazardous levels in excess of 0.2 mg/L – flooring tested are “none detected”. The Contractor shall containerize and dispose of the following materials as non-hazardous mercury waste at an EPA approved treatment, storage, and disposal facility.
1. Bulk flooring waste (as a result of surface preparation).
 2. Dust and visible metallic mercury.
 3. Dust from HEPA filters and from damp sweeping.
 4. Rags, sponges, mops, HEPA filters, respirator cartridges, scrapers, and other materials used for testing, and clean up.
 5. Disposable work clothes and respirator filters.
 6. Contents of HEPA vacuums used on this project.
 7. Polyethylene Rubber Flooring used in work activities

The cost of all disposal of non-hazardous waste is to be provided at reasonable (market rate) additional cost.

- D. Contractor shall collect the wash water generated by the worker shower, wash facilities, in 55 gallon drums and filter the water using a 2 stage filtration system composed of:
1. 5 micron porosity in-line cartridge particulate filter followed by activated carbon filter in-line cartridge
- E. Hold the filtered water for testing prior to discharge to the sanitary sewer. Contractor shall test the water and verify mercury levels below regulatory limits for mercury and pH between 6 and 8 prior to discharge. Water that fails the testing criteria shall be treated as hazardous waste.
- F. Contractor shall utilize a certified transporter for hazardous waste in compliance with DOT 49 CFR 172.
- G. Contractor shall submit the completed Waste Manifest within 30 calendar days following the date the load leaves the site.
- H. The Owner shall be provided a minimum of 72 hours’ notice of requirement for signature to identify agent for signatures on waste documentation. Contractor shall provide waste manifest to generation and destination state as required and provide Owner (Generator copy to agent signing manifests).

END OF SECTION 028416

Section 09 96 66

Water Vapor Emission Control Systems

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings, documents, and general provisions of the Contract, including, but not necessarily limited to, General Conditions and Division 1 Specification Sections, apply to this Section.
- B. Related Sections- Coordinate work of this Section with work of other Sections to properly execute the work requirements and maintain satisfactory progress of work in other Sections.
 - 1. Section 03 06 30: Cast-In Place Concrete Installation and curing requirements according to ACI 302.
 - 2. Section 09 62 00: Specialty Flooring, Installation requirement.
 - 3. Section 09 64 00: Wood Flooring, Installation requirement.
 - 4. Section 09 65 00: Resilient Flooring, rubber sheet and vinyl tile installation requirements.
 - 5. Section 09 65 36: Static Control Flooring, Installation requirements.
 - 6. Section 09 67 00: Fluid Applied Flooring, Installation requirements.
 - 7. Section 09 68 00: Carpet, Installation requirements.

1.2 SUMMARY

- A. This Section includes the furnishing, testing, and application of systems for the reduction of moisture vapor transmission and alkalinity control for Interior concrete slabs requiring the installation of VCT, vinyl flooring, rubber flooring, wood, carpet, and/or epoxy flooring systems.

1.3 SUBMITTALS

- A. General: Submit each item in this Article according to the requirements and Conditions of the Contract in Division 1. Specification Sections.
- B. Product data for each type of product and process specified which shall include:
 - 1. Manufacturer's Specification
 - 2. Installation Instructions
 - 3. Independent Test Data
 - 4. Certification Requirements
 - 5. Warranty Information
- C. Submit anhydrous calcium chloride testing according to ASTM F 1869 (latest revision) and/or RH Probe Test according to ASTM F 2170 (latest revision). Tests shall be performed by the Independent Inspector and results provided to the Architect, Owner, General Contractor, and Water Vapor Reduction System Manufacturer's Representative.

1.4 QUALITY ASSURANCE

- A. Qualifications of Applicator
 - 1. Employ an Applicator currently approved by the manufacturer, experienced in surface preparation and application of the material and subject to inspection of the manufacturer.
- B. Manufacturer's Qualifications
 - 1. Manufacturer shall have no less than ten (10) years experience in manufacturing water vapor reduction systems. The water vapor reduction system must be specifically formulated and marketed for water vapor reduction and alkalinity control without change of system design for a minimum period of five (5) years.
 - 2. Manufacturer shall provide the Owner with their standard ten (15) year warranty at no additional cost. Applicator of water vapor reduction system shall provide standard installation warranty for workmanship.
 - 3. Manufacturer must provide independent lab test reports documenting performance per the following:
 - a. ASTM E 96, Water Vapor Transmission (wet method) Performance shall be documented by an independent testing laboratory at a minimum of 97% water vapor transmission reduction compared to untreated concrete.
 - b. ASTM E96- Perm Rating - Standard Test Method for Water Vapor Transmission of Materials - Perm Rate results must not exceed 0.1 Perms (when tested under laboratory conditions).

- c. ASTM D 1308; Insensitivity to alkaline environment up to, and including, pH 14. A 14 day test is required with no degradation of sample reported.
- d. Certify acceptance and exposure to continuous topical water exposure after final cure.

4. Submit list of product use and performance history, for the same formulation and system design, listing reference sources for at least 3 projects dating back for a minimum of 5 years.

1.5 DELIVERY, STORAGE AND HANDLING

- A. Deliver products to the job site in their original unopened containers, clearly labeled with the manufacturer's name and brand designation.
- B. Store products in an approved ventilated dry area; protect from dampness, freezing, and direct sun light. Product should not be stored in areas with temperatures in excess of 90° F or below 50° F.
- C. Handle product in a manner that will prevent breakage of containers and damage products.

1.6 PROJECT/SITE CONDITIONS

A. ENVIRONMENTAL CONDITIONS

- 1. Do not apply moisture vapor reduction system to surfaces that may be exposed to excessive weather conditions (such as rain, wind, etc) until the material has fully cured, or when water is accumulated on the surface of the concrete. Protect freshly applied coating accordingly when material is applied outdoors.
- 2. Do not apply water vapor reduction system when temperature is lower than 50°F or expected to fall below this temperature within 24 hours from time of application.

B. **PROTECTION:** Protect water vapor reduction system to prevent damage from active rain or topical water for a minimum period of 24 hours from time of application.

1.7 SCHEDULING

- A. Before installation of VCT, sheet vinyl, rubber flooring, wood, carpet and/or epoxy flooring systems over the interior concrete slabs, anhydrous calcium chloride testing ASTM F 1869 (latest revision) and/or RH Probe Tests ASTM F 2170 shall be performed by the Independent Inspector as outlined in Article 3.1 below.
- B. The Independent Inspector will coordinate with the Owner scheduling water vapor reduction system testing and allowing enough time to test, submit and install the water vapor reduction system before installation of floor finish.
- C. The Independent Inspector will allow for as much time as is reasonable for the concrete slab to dry before installing anhydrous calcium chloride tests and/or RH Probe Tests. All mastics, glues, and/or contaminants shall be removed to provide a clean, sound, concrete substrate prior to installing anhydrous calcium chloride tests as per ASTM F 1869 (latest revision).
- D. The water vapor reduction system must allow installation as early as 7 days after concrete placement.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Water vapor reduction system, which may be incorporated in the work, shall be the product of a single manufacturer, no substitutions. Manufacturer's offering approved products:

- 1. KOSTER VAP I® 2000 System by KOSTER American Corporation;
Corporate Headquarters: 2585 Aviator Drive, Virginia Beach, VA 23453
Phone: (757) 425-1206 - Fax: (757) 425-9951
Web address: www.kosterusa.com

B. Terminology hereafter is based upon the products of KOSTER American Corporation.

2.2 MATERIALS

A. General: Use materials of one manufacturer throughout the project as hereinafter specified.

- 1. System consists of one (1) coat of KOSTER VAP I® 2000. The Owner shall specify a floor covering system and adhesive

having the ability to withstand water vapor transmission levels up to 3lbs/1000 ft²/24 hr. The water vapor reduction system shall be required to reduce water vapor emissions by a minimum of 97% after final cure, as well as alkalinity reduction to acceptable pH levels.

B. 100% solids KOSTER VAP I[®] 2000 epoxy coating, containing specifically formulated chemicals and resins to provide the following characteristics and properties in a one coat system. No multi-coat systems are allowed. System must contain 100% solid epoxy system.

1. ASTM E 96, Water Vapor Transmission (wet method) Performance shall be documented by an independent testing laboratory at a minimum 97% for water vapor transmission reduction compared to untreated concrete.
2. ASTM E 96 Permeance Rating - product cannot exceed a 0.1 permeance rating (when tested under laboratory conditions).
3. ASTM D 1308; Insensitivity to alkaline environment up to, and including, pH 14 in a bath test.
4. Certify acceptance and exposure to continuous topical water exposure after final cure.
5. Water Vapor reduction system shall be a single coat, stand alone system with no requirements for additional components such as sand broadcast for adhesion of flooring systems.
6. System must reduce Calcium Chloride readings of up to 25lbs/1000 ft²/24 hrs by 97% in one coat. System must be able to perform as required with RH Probe readings of 100%.

C. KOSTER VAP I[®] 06 Primer -(non-porous substrate primer)

2.3 AREA NOT REQUIRING VAPOR REDUCTION SYSTEM

A. Anhydrous calcium chloride testing and/or RH Probe Tests performed by the Independent Inspector for interior concrete slab areas receiving VCT, sheet vinyl, rubber flooring, wood, carpet, and or epoxy flooring systems will determine where this system may be required. Water vapor reduction system may be required on concrete floors with water vapor transmission level in excess of 3 lbs/1000 ft²/24 hr or 5 lbs/1000 ft²/24 hr for some specific flooring systems (verify with flooring system manufacturer.) RH Probe Test results of 75% or higher requires the installation of the vapor reduction system.

B. Water vapor reduction system is not required on interior concrete slabs without floor finishes.

PART 3 - EXECUTION

3.1 EXAMINATION OF SUBSTRATE BEFORE APPLICATION

A. Calcium Chloride and/or RH Probe test requirements:

1. Anhydrous calcium chloride testing shall be performed by the Independent Inspector as outlined in Section 01410 - Quality Requirements.
2. Provide anhydrous calcium chloride tests according ASTM F 1869 (latest revision) protocols. Provide RH Probe Tests according to ASTM F 2170 protocols.
3. Only conduct calcium chloride tests at the same temperature and humidity expected during normal use. If this is not possible, then the test conditions should be 75°F +/-10°F and 50% (+/-10%) relative humidity. Maintain these conditions 48 hours prior to and during testing. Water vapor transmission levels are directly affected by ambient room temperature and readings conducted without a sustained ambient temperature are NOT acceptable.
4. The Independent Inspector shall provide test results with a marked up floor finish plan showing test results. The Independent Inspector shall provide a written clarification on status of the ambient air temperature and humidity before and during the testing procedures.

B. Testing for contaminants that inhibit adhesion

1. On existing slabs (primarily), testing for concrete deficiencies and contaminants such as un-reacted water-soluble silicates, chlorides, A.S.R. (alkali-silica reaction), oil contamination, etc. is strongly recommended by KOSTER to avoid bonding issues. These conditions may cause bonding concerns with all epoxy and finished floor coatings, including the KOSTER VAP I[®] 2000. This testing should be performed by the owner's independent testing agency using standard coring methods. Also, the history of the slab installation should be reviewed. Concrete should conform to ACI Committee 201 Report "Guide to Durable Concrete."

C. Testing adhesion of the final flooring to the vapor barrier:

1. The Independent Inspector shall verify proper adhesion of flooring adhesives, coatings, and leveling compounds to the final vapor reduction coating system for acceptability. Contact Manufacturer's Representatives for recommendations.

3.2 PREPARATION

- A. Inspect all surfaces with regard to their suitability to receive moisture vapor reduction system with manufacturer's representative.
- B. Clean all surfaces to receive moisture vapor reduction system. Shot blast all floors to a Concrete Surface Profile (CSP) #3 or #4 and clean surfaces with an industrial vacuum cleaner and remove all residues from the substrate. Grinding is allowed only in areas not accessible by shot blasting. Remove ALL defective materials, and foreign matter such as dust, adhesives, leveling compounds, paint, dirt, floor hardeners, bond breakers, oil, grease, curing agents, form release agents, efflorescence, laitance, shot blast beads, etc. Repair all cracks, expansion joints, control joints, and open surface honeycombs and fill in accordance with Manufacturer's recommendations. If concrete additives such as chlorides or any other water-soluble compounds that may contaminate surfaces have been used in the concrete mix do not use this product on that floor without written approval from KOSTER American Corporation. Reinforcing fibers that are visible after shot blasting must be removed and vacuumed leaving no fibers left on the concrete surfaces. **Provide an uncontaminated, sound surface. DO NOT ACID ETCH!**
- C. Repair concrete prior to moisture vapor reduction system installation by using KOSTER SB Bonding Emulsion with approved concrete repair materials. Comply with all requirements as listed in Manufacturer's technical data information. Consult with vapor reduction manufacturer.
- D. Ensure surfaces to be treated with moisture vapor reduction system have NOT previously been treated with other materials such as underlayments, screeds, penetrating sealants, silicates, etc. If this is the case, consult with the Manufacturer's Representative prior to any application of moisture vapor reduction system.
- E. Any testing for concrete deficiencies or contamination such as alkali silica reaction, unreacted silicates, organic residue, etc. is recommended and is the responsibility of the Building owner.
- F. Shot blast a small test area and review surface profile with the finished flooring applicator. As the KOSTER VAP I[®] 2000 is not a leveling material, make sure the flooring installer is aware that a feather finish or leveling material may be required to smoothen or level the surface of the KOSTER VAP I[®] 2000 treated concrete prior to the flooring installation.

3.3 MIXING

- A. Use clean containers and mix thoroughly as per Manufacturer's requirements to obtain a homogeneous mixture. Use a low speed motor less than 400 rpm and a two bladed Jiffy-type mixing blade only. DO NOT AERATE. Mix ratios are measured by volume.
- B. KOSTER VAP I[®] 2000 Mix Ratio: Mix Component A and B at a ratio of 2.4:1 by volume.

3.4 APPLICATION

A. KOSTER VAP I[®] 2000 System Application:

The coverage rates for this Single Coat system depends on the surface profile and porosity of the concrete substrate as well as the measured level of moisture, from Section 3.1 Examination. On average, a coverage rate of 100-150 ft²/gal. may be expected. (See additional application instructions in KOSTER technical data sheets for specific coverage rates.)

- B. **After mixing, pour material on the substrate in a ribbon. Empty can completely.**
- C. Spread KOSTER VAP I[®] 2000 using a squeegee and back-roll with a 3/8 inch nap epoxy-rated roller leaving NO areas untreated.
- D. Allow to cure a minimum of 12 hours before installing flooring system.
- E. After shot blasting and installation of the KOSTER VAP I[®] 2000 vapor reduction system, a self-leveling cementitious underlayment system or patching compound may be used in conjunction with the KOSTER VAP I[®] 06 Primer (if required by the Owner, floor covering installer, or floor covering manufacturer to smoothen or level surfaces). Never apply KOSTER VAP I[®] 2000 over any new or existing cementitious underlayment system (especially if it is calcium sulfate based), unless approved in writing by the KOSTER American Technical Staff, **(no exceptions)**.
- F. When water based adhesives are used in the floor covering installation, use an approved underlayment system together with a non-porous substrate primer prior to the installation of the flooring system. Please consult the adhesive manufacturer for their minimum recommended thickness of cementitious underlayment to absorb excess moisture in the adhesive. Note: this applies only to certain water based adhesives. Most adhesives will bond directly to the KOSTER VAP I[®] 2000. Consult with KOSTER American Corporation for general guidelines.

3.4 CLEANING

- A. Clean all tools and equipment with Xylene (or similar material) immediately after use when using the KOSTER VAP I® 2000.
- B. Remove all debris resulting from water vapor reduction system installation from project site.

3.5 PROTECTION

- A. Protect each coat during specified cure period from any kind of traffic, topical water and contaminants.

END SECTION 09 96 66

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Attachment A

**Limited Hazardous Material Inspection dated
March 25, 2014, Revised April 7, 2014**

Limited Hazardous Materials Inspection Report

Smith Middle School
Main Gymnasium and Auxiliary Gymnasium

Town of Glastonbury
Glastonbury, CT

March 25, 2014
Revised April 7, 2014



Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040



FUSS & O'NEILL
EnviroScience, LLC

March 25, 2014
Revised April 7, 2014

Mr. Lance Mazur
Town of Glastonbury
Director of Operations & Maintenance
330 Hubbard Street
Glastonbury, CT 06033

**RE: Limited Hazardous Materials Inspection
Smith Middle School, 226 Addison Road, Glastonbury, CT
Main Gymnasium and Auxiliary Gymnasium
Fuss & O'Neill EnviroScience Project No. 20140137.A1E**

Dear Mr. Mazur:

Enclosed is the report for the limited hazardous materials inspection performed in the Main Gymnasium and the Auxiliary Gymnasium at Smith Middle School at 226 Addison Road, Glastonbury, CT.

The initial inspection was performed on March 3, 2014 by a Fuss & O'Neill EnviroScience, LLC licensed inspector and included an asbestos inspection and mercury materials for the polyurethane gym floor(s) renovation project.

The information summarized in this document is for the above-mentioned materials only. It does not include information on other hazardous materials that may exist in the property (such as underground storage tanks).

If you have any questions regarding the contents of this report, please do not hesitate to contact me at (860) 646-2469, extension 5570. Thank you for this opportunity to have served your environmental needs.

146 Hartford Road

Manchester, CT

06040

t 860.646.2469

800.286.2469

f 860.533.5143

Sincerely,

Carlos Texidor
Project Manager

CT/kr

Enclosure

Table of Contents

Limited Hazardous Materials Inspection Report Town of Glastonbury

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Appendices

APPENDIX A	FUSS & O'NEILL ENVIROSCIENCE CERTIFICATIONS
APPENDIX B	ASBESTOS SAMPLE RESULTS AND CHAIN OF CUSTODY
APPENDIX C	MERCURY BULK & TCLP SAMPLE RESULTS AND CHAIN OF CUSTODY

1 Introduction

On March 3, 2014, Fuss & O'Neill EnviroScience, LLC (EnviroScience) Environmental Technician James Raffin, a State of Connecticut Licensed Asbestos Inspector, performed a limited hazardous materials inspection of selected areas of the Main Gymnasium and Auxiliary Gymnasium polyurethane floor(s) at Smith Middle School, 226 Addison Road, Glastonbury, CT which are slated for removal. Refer to *Appendix A* for EnviroScience certifications and license.

This inspection was performed in response to the planned flooring removal in the Main Gymnasium and Auxiliary Gymnasium and consisted of an inspection for asbestos-containing materials (ACM) and mercury.

The areas were inspected in accordance with EnviroScience's written proposal dated February 20, 2014.

2 Asbestos Inspection

A Property Owner must ensure that performance of a thorough inspection for asbestos-containing materials (ACM), prior to possible disturbance of materials containing asbestos during renovation or demolition, is conducted. This is a requirement of the U.S. Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation 40 CFR Part 61, Sub-Part M.

This includes Friable, Non-Friable Category I, and Non-Friable Category II ACM.

- A Friable Material is defined as material that contains greater than one percent (>1%) asbestos, that when dry **can** be crumbled, pulverized, or reduced to powder by hand pressure.
- A Category I Non-Friable Material refers to material that contains greater than one percent (>1%) asbestos (e.g. packing, gaskets, resilient floor coverings, asphalt roofing products, etc.) that when dry **cannot** be crumbled, pulverized, or reduced to powder by hand pressure.
- A Category II Non-Friable Material refers to any non-friable material (excluding Category I materials) that contains greater than one percent (>1%) asbestos that when dry **cannot** be crumbled, pulverized, or reduced to powder by hand pressure.

During this inspection, suspect ACM were separated into three EPA categories. These categories are: thermal system insulation (TSI), surfacing ACM, and miscellaneous ACM. TSI includes all materials used to prevent heat loss or gain or water condensation on mechanical systems. Examples of TSI are pipe insulation, boiler insulation, duct insulation, and mudded insulation on pipe fittings. Surfacing ACM includes all ACM that is sprayed, troweled, or otherwise applied to an existing surface. Surfacing ACM is commonly used for fireproofing, decorative, and acoustical applications. Miscellaneous materials include all ACM not listed in thermal or surfacing, such as linoleum, vinyl asbestos flooring, and ceiling tiles.

Samples are recommended to be collected in a manner sufficient to determine asbestos content and include homogenous building materials. The EPA NESHAP regulation does not specifically identify a

minimum number of samples to be collected, but recommends the use of sampling protocols included in 40 CFR Part 763, Sub-Part E - Asbestos Containing Materials in Schools.

Samples of suspect asbestos-containing materials were collected in accordance with EPA recommendations and Asbestos Hazard Emergency Response Act (AHERA) protocols. The protocols included the following:

1. Surfacing Materials (SURF) (e.g. plaster, spray-on fireproofing, etc.) were collected in a randomly distributed manner representing each homogenous area based on the overall quantity represented by the sampling as follows:
 - a. Three (3) samples collected from each homogenous area that is less than or equal to (\leq) 1,000 square feet.
 - b. Five (5) samples collected from each homogenous area that is greater than ($>$) 1,000 square feet, but less than or equal to 5,000 square feet.
 - c. Seven (7) samples collected from each homogenous area that is greater than ($>$) 5,000 square feet.

2. Thermal System Insulation (TSI) (e.g. pipe insulation, tank insulation, etc.) was collected in a randomly distributed manner representing each homogenous area. Three (3) bulk samples were collected as representative of each homogeneous material type, and sent to laboratory for asbestos analysis. Also, a minimum of one (1) sample of any patching material (less than 6 linear of square feet) applied to TSI was collected.

Miscellaneous Materials (MISC) (e.g. floor tile, gaskets, construction mastics, etc.) had a minimum of two (2) samples collected as representative of each homogenous material type. Sampling was conducted in a manner sufficient to determine asbestos content of the homogenous material as determined by the Asbestos Inspector. If materials identified were of (significant) minimal quantity, only a single sample was collected.

The Asbestos Inspector(s) collected samples and prepared proper chain of custody for transmission of samples to an accredited laboratory for analysis by Polarized Light Microscopy (PLM). Samples of all suspect ACM to be impacted by proposed building demolition were collected. The sampling locations, material type, sample identification, and asbestos content are identified by bulk sample analysis in Table 1 of the “Results” section. Any materials on the site not listed in the following tables should be considered suspect ACM until sample results prove otherwise. Refer to *Appendix B* for PLM analytical results for asbestos bulk samples.

2.1 Results

Utilizing the EPA protocol and criteria, the following materials were determined to be **non-ACM**:

**Table 1
Non-Asbestos Containing Materials**

Location	Material Type	Sample No.
Main/Auxiliary Gymnasium	Baseboard-tan	0303JR01A-C

Location	Material Type	Sample No.
Main/Auxiliary Gymnasium	Baseboard adhesive-white	0303JR02A-C

2.2 Conclusion

No asbestos-containing materials were identified that will be impacted during the removal of the polyurethane flooring in the Main Gymnasium and Auxiliary Gymnasium.

Any suspect material encountered during renovation/demolition that is not identified in this report as being non-ACM, should be assumed to be ACM unless sample results prove otherwise.

Please see *Appendix B* for the chain-of-custody and sample results.

3 Mercury Sampling

Bulk sampling of the gymnasium flooring was conducted to determine the total concentration and leachable concentration of mercury within the flooring.

The purpose of the bulk sampling was to determine mercury trends with the gymnasium flooring at the school. A Toxicity Characteristic Leachate Procedure (TCLP) analysis was performed to determine the disposal requirement of the material.

3.1 Results

Utilizing the EPA and CTDEEP protocol and criteria, the following material was determined to contain the following concentrations of total and leachable mercury:

Table 2
Mercury Concentrations

Location	Material	Total Mercury (Mg/Kg)	Leachable Mercury (Mg/L)
Main Gymnasium	Polyurethane Rubber Flooring	3.4	ND
Main Gymnasium	Polyurethane Rubber Flooring	3.0	ND
Main Gymnasium	Polyurethane Rubber Flooring	3.7	ND
Auxiliary Gymnasium	Polyurethane Rubber Flooring	2.9	ND
Auxiliary Gymnasium	Polyurethane Rubber Flooring	2.2	ND
Auxiliary Gymnasium	Polyurethane Rubber Flooring	2.4	ND

3.2 Conclusion

The gymnasium flooring at Smith Middle School was determined to be “none detected” for leachable mercury; classifying the material as non-hazardous waste for disposal purposes based on TCLP analysis.

The average concentration of total mercury, 2.93 mg/kg, indicates that the material contains elevated concentrations of mercury which could potentially be released during removal activities.

Mercury (Hg) is greater than 1 ppm and less than 20 ppm; it is unlikely that exposures to Hg vapor in the gyms could reach levels of concern. However, proper floor maintenance, adequate ventilation and periodic testing should take place to document levels are not exceeded.

We recommend that the general public should not be exposed to short-term (acute or one hour) mercury air concentrations above 1000 ng/m³. This conservative criterion protects all people, including sensitive individuals, such as pregnant women and children.

For longer term exposures, it's recommended that gym teachers should not be exposed to more than 750 ng/m³ of mercury vapor during 40 hour work weeks averaged over the school year. Children exercising in the gym will have a greater respiration rate than teachers. Therefore, their exposure should be limited to 750 ng/m³ during 16 hours or less per week averaged over the school year.

Long-term mercury vapor exposure guidelines are based on the EPA Integrated Risk Information System Reference Concentration of 300 ng/m³ for chronic exposures. These recommendations assume that students and teachers are not exposed to additional significant, long-term sources of mercury vapor other than the gym.

Based on the concentrations of total mercury present in the gymnasiums flooring; contractors performing removal of the material should utilize engineering controls such as polyethylene sheeting critical(s) to isolate work area from non-work area, negative pressure, and worker/equipment decontamination units. Additionally, the waste generated during removal should be wrapped in air/leak tight containers prior to removal from work area. Contractors must also comply with OSHA regulations involving employee protection against mercury via inhalation and dermal routes of entry.

The testing results are provided as *Appendix C* in this report.

4 Observations & Miscellaneous Materials

No asbestos containing materials were identified that will be impacted by the removal of the polyurethane rubber flooring in the Main Gymnasium and Auxiliary Gymnasium. However, mercury was detected at levels >1 mg/kg.

Report prepared by Environmental Technician James Raffin and Project Manager Carlos Texidor.

Reviewed by:



Carlos Texidor
Project Manager



Robert L. May, Jr.
President

Appendix A

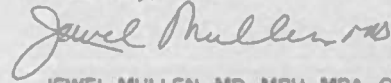
Fuss & O'Neill EnviroScience Certifications

0005487 FP **PRSRT TE 0 1364 06447
JAMES T. RAFFIN
27 ISLEIB ROAD
MARLBOROUGH CT 06447

Dear Licensed/Certified Professional,
Attached you will find your validated license/certification for the coming year. Should you have any questions about your license/certificate renewal, please do not hesitate to write or call:

Department of Public Health (860) 509-7603
P.O. Box 340308
M.S.#12MQA <http://www.dph.state.ct.us>
Hartford, CT 06134-0308

Sincerely,



JEWEL MULLEN, MD, MPH, MPA, COMMISSIONER
DEPARTMENT OF PUBLIC HEALTH

INSTRUCTIONS:

1. Detach and sign each of the cards on this form.
2. Display the large card in a prominent place in your office or place of business.
3. The wallet card is for you to carry on your person. If you do not wish to carry the wallet card, place it in a secure place.

4. The employer's copy is for persons who must demonstrate current licensure/verification in order to retain employment or privileges. The employer's card is to be presented to the employer and kept by them as a part of your personnel file. Only one copy of this card can be supplied to you.

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
PURSUANT TO THE PROVISIONS OF THE GENERAL STATUTES OF CONNECTICUT
THE INDIVIDUAL NAMED BELOW IS LICENSED
BY THIS DEPARTMENT AS A

ASBESTOS CONSULTANT - INSPECTOR

JAMES T. RAFFIN

LICENSE NO.
000373
CURRENT THROUGH
09/30/14
VALIDATION NO
03-658316



COMMISSIONER

EMPLOYER'S COPY

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH
NAME
JAMES T. RAFFIN
VALIDATION NO. LICENSE NO. CURRENT THROUGH
03-658316 000373 09/30/14
PROFESSION
ASBESTOS CONSULTANT-INSPECTOR



COMMISSIONER

Fuss & O'Neill EnviroScience, LLC

146 Hartford Road, Manchester, CT 06040 – (860) 646-2469

This is to certify that

James Raffin
xxx-xx-8041

has successfully completed the
4 Hr. Asbestos Inspector Refresher
Asbestos Accreditation under TSCA Title II
40 CFR Part 763



John Rowinski, Principal Instructor



Robert L. May, Jr., Training Manager

January 6, 2014

Date of Course

AI-R-01/14-2

Certificate Number

January 6, 2014

Examination Date Expiration Date

January 6, 2015

Appendix B

Asbestos Sample Results and Chain of Custody

041405199



FUSS & O'NEILL
EnviroScience, LLC

www.fando.com

146 Hartford Road, Manchester, CT 06040

(860) 646-2469 Fax (860) 649-6883

SAMPLE LOG FOR ASBESTOS BULKS

Sheet 1 of 1

Project Name: Smith Middle School Project No. 20140137-AIE
Building: Gym & Auxillary Gym Project Manager: C.T.

Sample ID	Sample Location	Material	Result (%)
0303JR01A	Gym	Baseboard - Tan	
| 01B	|	| |	
| 01C	Auxillary Gym	| |	
0303JR02A	Gym	Baseboard Adhesive - White	
| 02B	|	| |	
| 02C	Auxillary Gym	| |	

Analysis Method: PLM Other

Turnaround Time 5 day

Based on the turnaround time indicated above, analyses are due to EnviroScience on or before this date: 3/6/14. Please call the EnviroScience Laboratory if analyses will be late at (860) 646-2469.

Fax Results to the EnviroScience Laboratory at: 888-838-1160.

Special Instruction: Stop analysis on first positive sample in each homogeneous set of samples unless otherwise noted. Do not layer samples unless indicated. EPA 400 point count all samples of asbestos content <4%. positive stop on all point counts.

Samples collected by: James Rabin Date: 3/3/14 Time: 2:30 pm

Samples [Rec'd][Sent by] | JR || JR | Date: [3/3/14 || 3/3/14] Time: 5:00 pm

Samples Received by: AK EMSL EX Date: 3/4/14 Time: 10:30A

Shipped To: EMSL State NJ Other _____

Method of Shipment: Fed Ex UPS Overnight UPS Ground Other _____

CTP



EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077
 Phone/Fax: (800) 220-3675 / (856) 786-5974
<http://www.EMSL.com> cinnaslab@EMSL.com

EMSL Order: 041405199
 CustomerID: ENVI54
 CustomerPO:
 ProjectID:

Attn: **Carlos Texidor**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469
 Fax: (888) 838-1160
 Received: 03/04/14 10:30 AM
 Analysis Date: 3/10/2014
 Collected: 3/3/2014

Project: **Smith Middle School / 20140137.A1E / Gym & Auxillary Gym**

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
0303JR01A 041405199-0001	Gym - Baseboard-Tar	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
0303JR01B 041405199-0002	Gym - Baseboard-Tar	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
0303JR01C 041405199-0003	Auxillary Gym - Baseboard-Tar	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
0303JR02A 041405199-0004	Gym - Baseboard Adhesive White	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
0303JR02B 041405199-0005	Gym - Baseboard Adhesive White	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
0303JR02C 041405199-0006	Auxillary Gym - Baseboard Adhesive White	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected

Analyst(s)

Nancy Stalter (2)
 Shane Feret (4)

Stephen Siegel, CIH, Laboratory Manager
 or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%
 Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68 00367

Initial report from 03/11/2014 08:04:21

Appendix C

Mercury Bulk & TCLP Sample Results and Chain of Custody



EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077
 Phone/Fax: (856) 303-2500 / (856) 858-4571
<http://www.EMSL.com> Env_Chemistry@emsl.com

EMSL Order: 011400926
 CustomerID: ENVI54
 CustomerPO: 20140137.A1E
 ProjectID:

Attn: **Carlos Texidor**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469
 Fax: (888) 838-1160
 Received: 03/04/14 10:30 AM

Project: 20140137.A1E

Analytical Results

Client Sample Description 0228JR-01A Main Gym-Floor-Composite **Collected:** 2/28/2014 **Lab ID:** 0001

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7471B	Mercury	3.4	0.44	mg/Kg	3/10/2014	JS	3/10/2014	JS

Client Sample Description 0228JR-01B Main Gym-Floor-Composite **Collected:** 2/28/2014 **Lab ID:** 0002

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7471B	Mercury	3.0	0.48	mg/Kg	3/10/2014	JS	3/11/2014	JS

Client Sample Description 0228JR-01C Main Gym-Floor-Composite **Collected:** 2/28/2014 **Lab ID:** 0003

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7471B	Mercury	3.7	0.44	mg/Kg	3/10/2014	JS	3/11/2014	JS

Client Sample Description 0228JR-02A Auxillary Gym-Floor Composite **Collected:** 2/28/2014 **Lab ID:** 0004

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7471B	Mercury	2.9	0.40	mg/Kg	3/10/2014	JS	3/11/2014	JS

Client Sample Description 0228JR-02B Auxillary Gym-Floor Composite **Collected:** 2/28/2014 **Lab ID:** 0005

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7471B	Mercury	2.2	0.50	mg/Kg	3/10/2014	JS	3/11/2014	JS

Client Sample Description 0228JR-02C Auxillary Gym-Floor Composite **Collected:** 2/28/2014 **Lab ID:** 0006

Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
7471B	Mercury	2.4	0.44	mg/Kg	3/10/2014	JS	3/11/2014	JS

Definitions:

ND - indicates that the analyte was not detected at the reporting limit
 RL - Reporting Limit



EMSL Analytical, Inc.

200 Route 130 North, Cinnaminson, NJ 08077
 Phone/Fax: (856) 303-2500 / (856) 858-4571
<http://www.EMSL.com> Env_Chemistry@emsl.com

EMSL Order: 011400900
 CustomerID: ENVI54
 CustomerPO: 20140137.A1E
 ProjectID:

Attn: **Carlos Texidor**
Fuss & O'Neill EnviroScience, LLC
146 Hartford Road
Manchester, CT 06040

Phone: (860) 646-2469
 Fax: (888) 838-1160
 Received: 03/03/14 10:30 AM

Project: 201401307.A1E

Analytical Results

Client Sample Description		0228JR-03A - Main Gym - Composite Rubber Floor			Collected:	2/28/2014	Lab ID:	0001
Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
TCLP 1311/7470A	Mercury	ND	0.0020	mg/L	3/11/2014	JS	3/11/2014	JS
Client Sample Description		0228JR-03B - Main Gym - Composite Rubber Floor			Collected:	2/28/2014	Lab ID:	0002
Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
TCLP 1311/7470A	Mercury	ND	0.0020	mg/L	3/11/2014	JS	3/11/2014	JS
Client Sample Description		0228JR-03C - Main Gym - Composite Rubber Floor			Collected:	2/28/2014	Lab ID:	0003
Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
TCLP 1311/7470A	Mercury	ND	0.0020	mg/L	3/11/2014	JS	3/11/2014	JS
Client Sample Description		0228JR-04A-Auxillary Gym - Composite Rubber Floor			Collected:	2/28/2014	Lab ID:	0004
Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
TCLP 1311/7470A	Mercury	ND	0.0020	mg/L	3/11/2014	JS	3/11/2014	JS
Client Sample Description		0228JR-04B-Auxillary Gym - Composite Rubber Floor			Collected:	2/28/2014	Lab ID:	0005
Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
TCLP 1311/7470A	Mercury	ND	0.0020	mg/L	3/11/2014	JS	3/11/2014	JS
Client Sample Description		0228JR-04C-Auxillary Gym - Composite Rubber Floor			Collected:	2/28/2014	Lab ID:	0006
Method	Parameter	Result	RL	Units	Prep Date	Analyst	Analysis Date	Analyst
TCLP 1311/7470A	Mercury	ND	0.0020	mg/L	3/11/2014	JS	3/11/2014	JS

Definitions:

ND - indicates that the analyte was not detected at the reporting limit
 RL - Reporting Limit

011400900



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- 146 Hartford Road, Manchester, CT 06040
- 56 Quarry Road, Trumbull, CT 06611
- 1419 Richland Street, Columbia, SC 29201
- 78 Interstate Drive, West Springfield, MA 01089
- 50 Realfield Street, Suite 100, Boston, MA 02122
- 275 Promenade Street, Suite 350, Providence, RI 02908
- 80 Washington Street, Suite 301, Poughkeepsie, NY 12601

CHAIN-OF-CUSTODY RECORD 1131

Turnaround
 1 Day* 3 Days* Other S (days)
 2 Days* Standard (___) days *Surcharge Applies

PROJECT NAME: Smith Middle School
 PROJECT LOCATION: 216 Addison Rd., Glastonbury
 REPORT TO: ctesdor@fuss.com / Kreheld@fuss.com
 INVOICE TO: ↓

PROJECT NUMBER: 20140137.A1E
 LABORATORY: ENSL
 Containers

P.O. No.: 20140137.A1E
 Sampler's Signature: [Signature] Date: 2/28/14
 Source Codes: MW=Monitoring Well SW=Surface Water X=Other Bulk
 S=Soil B=Sediment W=Waste A=Air
 T=Treatment Facility

Analysis Request

TPP-131174704

Soil VOA Val. | methanol
Class Soil Container () oz
Water VOA Val. | water
Class Soil Container () oz
Other: () oz
Class Amber () ml | As is | HCl
Plastic - As is. | 250 ml | 500 | 1000 ml
Plastic - H2SO4 | 250 ml | 500 | 1000 ml
Plastic - HNO3, 250 ml | filtered | Unfiltered
Plastic - NaOH, 250 ml | filtered | Unfiltered

Item No.	Transfer Check	1	2	3	4	Sample Number	Source Code	Date Sampled	Time Sampled
1						0220JE	X	2/28/14	PM
2						03A-Main by m- Composite	↓	↓	↓
3						03B	↓	↓	↓
4						03C	↓	↓	↓
5						04A-Auxiliary by	↓	↓	↓
6						04B-	↓	↓	↓
						04C-	↓	↓	↓

Comments: Rubber floor
 Rubber floor
 100g
 LEFT MESS - 04B - 84g, INDIVIDUAL SAMPLES?
 2:40P 3/4/14 -EZ

Transfer Number	Relinquished By	Accepted By	Date	Time
1	James Raff	[Signature]	3/4/14	9:00a
2			3/4/13	10:30
3				
4				

Reporting and Detection Limit Requirements:

Additional Comments:
 PER JIM, 6 SEPARATE SAMPLES, PREPARED AT
 ENVIROSCIENCE W/IGHT ADDITIONAL MATERIAL ADDED TO
 0850 3/5/14 -EZ
 100g.

GL-2014-26 SMS Gym Floor Replacement

Attachment B

Floor Plan of Main Gymnasium and Auxiliary Gymnasium

PROJECT NO. 2010-0001
 DATE: 01/11/10
 DRAWN BY: J. COOK
 CHECKED BY: J. COOK
 SCALE: 1/8" = 1'-0"
 SHEET NO. A10.14
 PROJECT NAME: THE NEW MIDDLE SCHOOL
 PROJECT ADDRESS: ADDISON ROAD, GLASTONBURY, CT 06033
 ARCHITECT: JETER, COOK & JEPSON ARCHITECTS, INC.
 ARCHITECT ADDRESS: 100 MAIN STREET, SUITE 200, GLASTONBURY, CT 06033

TOWN OF GLASTONBURY
THE NEW MIDDLE SCHOOL
ADDISON ROAD
GLASTONBURY, CT

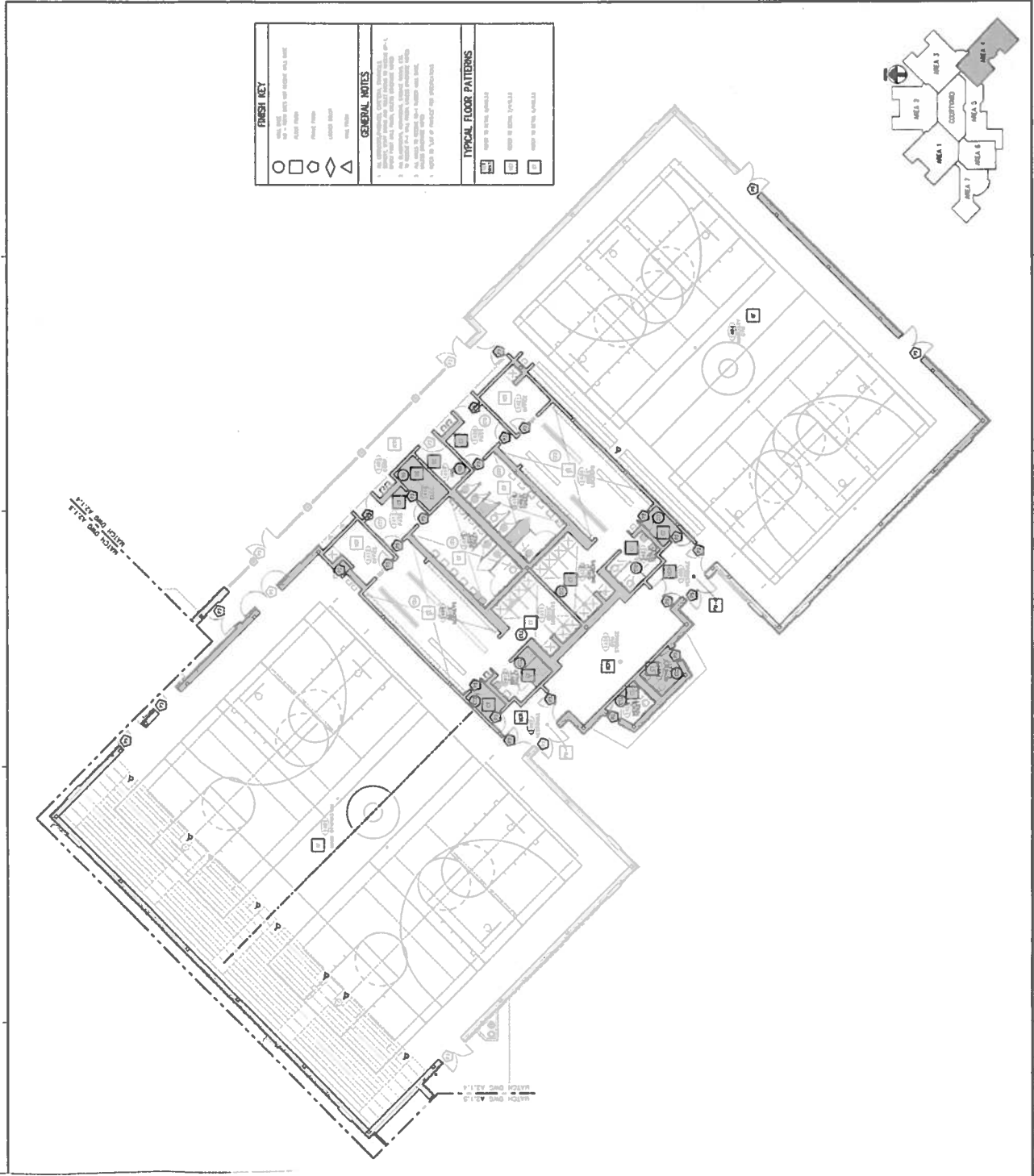
STATE PROJECT #2010-0001

Jeter Cook & Jepson
 Architects, Inc.
 100 MAIN STREET, SUITE 200
 GLASTONBURY, CT 06033



P.C.
 P.P.
 A.C.
 J.C.
 DATE: 01/11/10
 DRAWN BY: J. COOK
 CHECKED BY: J. COOK
 SCALE: 1/8" = 1'-0"
 SHEET NO. A10.14
 PROJECT NAME: THE NEW MIDDLE SCHOOL
 PROJECT ADDRESS: ADDISON ROAD, GLASTONBURY, CT 06033

A10.14



Attachment C

Main Gym – Polyturf: Polyurethane Athletic Flooring System Specifications

Smith Middle School - AUX. Gym
POLYTURF : Polyurethane Athletic Flooring System Specifications

Part 1 - General

1.1 Summary

- A. Provide fluid applied urethane flooring system where shown on the drawings, as specified herein, and as needed for a complete and proper installation.
- B. Related work:
 - 1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
- C. Description of the flooring system:
 - 1. The fluid applied urethane flooring system shall be a **full depth**, seamless system in which the topping component consists of urethane synthetic compounds and shall be continuously bonded to the substrate and produce a thin, monolithic wearing surface.

1.2 References

- A. Applicable Publications: The following publications form a part of this specification to the extent of the referenced thereto.
 - 1. American Society of Testing and Materials.

1.3 Submittals

- A. Product data: Submit the following in accordance with the approved submittal schedule:
 - 1. Materials list of items proposed to be provided under this Section.
 - 2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.
 - 3. Color samples showing colors and finishes currently available in the proposed products.

4. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the work.
5. Manufacturer's recommended care and maintenance instructions.
6. Manufacturer's warranty.

1.4 Quality Assurance

- A. The CONTRACTOR and the MANUFACTURER.
- B. The CONTRACTOR shall have a minimum of 10 years experience in the application of poured-in-place polyurethane surfacing for athletic, interior applications.
- C. The MANUFACTURER shall have 5 years experience in the production of two-component polyurethanes.
- D. The CONTRACTOR must have completed at least 10 urethane flooring applications similar in type and size to that of this project.
 1. All technicians/mechanics shall be factory trained and full-time employees of the manufacturer/installer, specializing in the installation of the flooring system.

1.5 Warranty

- A. Fluid-applied urethane flooring found to be defective as a result of faulty materials and/or workmanship shall be replaced or repaired at no charge to Owner upon receipt of notification in writing for a period not to exceed ONE year from the date of substantial completion.

Part 2 - Products

2.1 Manufacturers

- A. Provide PolyTurf by Beynon Sports Surfaces, Inc., or approved equal.
 1. Athletic floor system is based on Beynon Sports Surface, Inc. products.
 2. Substitutions: Provide equal products of other manufacturers when approved ten (10) days prior to bid by the Architect.
 3. PAD and POUR Systems will NOT be ACCEPTABLE.

2.2 Performance Properties

The polyurethane must exhibit the following minimum properties:

- Weight ≈ .79/# per 1/8" thickness
- Tensile Strength Range 1500 PSI +/- 100
- Hardness Range 55-80 Shore A +/- 5
- Temperature Stability Essentially unaffected from 0 degrees F to 190 degrees F
- Density 1.24 +/- 0.02 g/cm³
- Moisture Absorption 0.8% +/- 0.2 by weight
- Compression Set 90% to 95% immediate recovery (after 72 hours @ 50% compression 25 degrees C)
- Ultimate Elongation 125 +/- 50%
- Compression Properties 90 +/- 15 psi (10% modulus), 1200 +/- 100psi (50% modulus)
- Tear Strength 120 +/- 10 pli

2.3 Product Handling

- A. Deliver materials in original packages and containers, with seals unbroken, bearing manufacturers labels indicating brand name and directions for storing and mixing with other components.
- B. Store materials to comply with manufacturer's written instructions to prevent deterioration from moisture, heat, cold or other detrimental effects.

Part 3 - Execution

3.1 Project Conditions

- A. Examine the areas and conditions under which work of this Section will be performed. Owner/General Contractor shall correct all conditions detrimental to timely and proper completion of the work. Do not proceed until unsatisfactory conditions are corrected.
 - 1. Do not install flooring until spaces are enclosed and weatherproof; wet work in spaces is complete and dry; and overhead work, including installing mechanical systems, lighting, and athletic equipment is complete.
 - 2. Maintain ambient temperature and humidity conditions in spaces to receive flooring recommended by manufacturer for 7 days before installation, during installation and for 72 hours after installation.

- B. Close spaces to traffic during flooring application and for a period after application recommended by manufacturer to allow for the flooring system, including game-line and marker paint to cure.

3.2 Installation General

- A. Coordinate as required with other trades to assure proper and adequate provision in the work of those trades for interface with the work of this Section.
- B. Install the work of this Section in strict accordance with the original design, the approved Shop Drawings, pertinent requirements of governmental agencies having jurisdiction, and the manufacturer's recommended installation procedures as approved by the Architect.

3.3 Substrate Conditions And Preparation

- A. It shall be the General Contractors responsibility to perform all substrate preparation, correction and cleaning procedures in compliance with the manufacturer's instructions for the particular substrate conditions specified for this project and to provide the following environmental conditions.
- B. Dryness:
 - 1. Provide a minimum drying time of sixty (60) days after the slab is installed prior to the commencement of the installation of the urethane flooring system. Moisture content shall not exceed 5%.
 - 2. The building shall be dry and fully enclosed.
 - 3. The work shall not commence until the completion of spackling, masonry and wet-trade work.
 - 4. The room temperature shall be maintained at a minimum level of 70 degrees F for two weeks before and during the installation.
 - 5. The relative humidity shall not exceed 68 per cent during the application of materials and for at least eight hours after the completion of each process.
- C. Removals:
 - 1. The existing **Versaturf360** synthetic urethane flooring system shall be completely removed and properly disposed of under **Hazmat** guidelines. Moisture content, shot blasting and/or Moisture Mitigation to be determined by owner and addressed within the bid documents.

2. Concrete, which is damaged or has spalled or has been contaminated by a bond breaker shall be removed and repaired to provide a sound surface as directed under a change order if discovered after bidding.
3. Expansion joints shall be treated in accordance with the manufacturer's recommendations.

D. Concrete Levels:

1. Variations in concrete slab levels shall not exceed 1/8" in any 10' direction, non-cumulative.
2. Required leveling work that is necessary shall be accomplished by grinding high spots and filling low spots using urethane leveling materials or an approved underlayment adhered with a bonding agent as approved by the flooring system manufacturer.
3. A representative of the installer shall take instrument readings on check points to be marked five feet on center on the slab scheduled to receive the flooring system.
4. All receiving surface corrections shall be the responsibility of the General Contractor / Owner

3.4 Floor Installation

A. Priming:

1. Clean concrete as required.
2. Apply manufacturer's approved primer so that the surface is thoroughly wet but no puddles are left standing.

B. Pouring:

1. Pour urethane synthetic floor surfacing materials utilizing electronically controlled metering and mixing equipment. Hand mixing may be allowed.
2. Use a poured-in-place technique to achieve a monolithic surface to the maximum extent possible.
3. The completed thickness of material shall average 3/8".

C. Finishing and Game Lines:

1. Allow the urethane flooring materials to cure.
2. Apply manufacturer's approved pigmented polyurethane finish. Color to match the base elastomer and shall be applied to a minimum thickness of 2-3 dry mils.
3. The final coat of finish shall be matte.
4. Layout and paint all gamelines and other required markings according to approved shop drawings. Colors shall be selected from manufacturer's standard available colors and as approved by architect.

D. Protection:

1. No other trades shall be permitted in the area scheduled to receive the flooring system from the time of the application of the primer until ten (10) days after the application of the final coat of surface finish.
2. Adequate protection of the finished floor shall be provided by the General Contractor.
3. No smoking, open flames or sparking from electrical outlets, telephones or electric motors shall be permitted in the area during application of the primer, floor surfacing material, or finishing materials.

3.5 Clean Up

- A. Upon completion of the installation, the flooring contractor shall remove from the job site unused materials, tools, equipment and properly dispose of rubbish.

END OF SECTION