

**LEGAL NOTICE  
REQUEST FOR PROPOSALS  
MANCHESTER PUBLIC SCHOOLS  
TOWN OF MANCHESTER, CONNECTICUT**

The Manchester Board of Education will receive proposals in the Office of the Assistant Superintendent, Finance and Management, 45 North School Street, Manchester, Connecticut 06042 on the date and time listed below for the following:

**RFP #016-002 Portable Classroom Demolition  
Robertson Elementary School**

**Proposals will be accepted until: Thursday, July 30, 2015 at 1:30 p.m.**

**A mandatory site visit is scheduled for: Thursday, July 23, 2015, at 10:00 a.m. at Robertson Elementary School, 65 North School Street, Manchester CT 06042**

The right is reserved to reject any and all proposals. Specifications and forms are available on our website [www.mpspride.org](http://www.mpspride.org) or in the office of the Assistant to the Superintendent for Finance and Management, 45 North School Street, Manchester, Connecticut 06042 during regular office hours between 8:00 a.m. and 4:00 p.m. or by calling (860) 647-3445.

Manchester Public Schools is an equal opportunity employer and requires affirmative action policy for all of its contractors and vendors as a condition of doing business with the school district, as per Federal Order 11246.

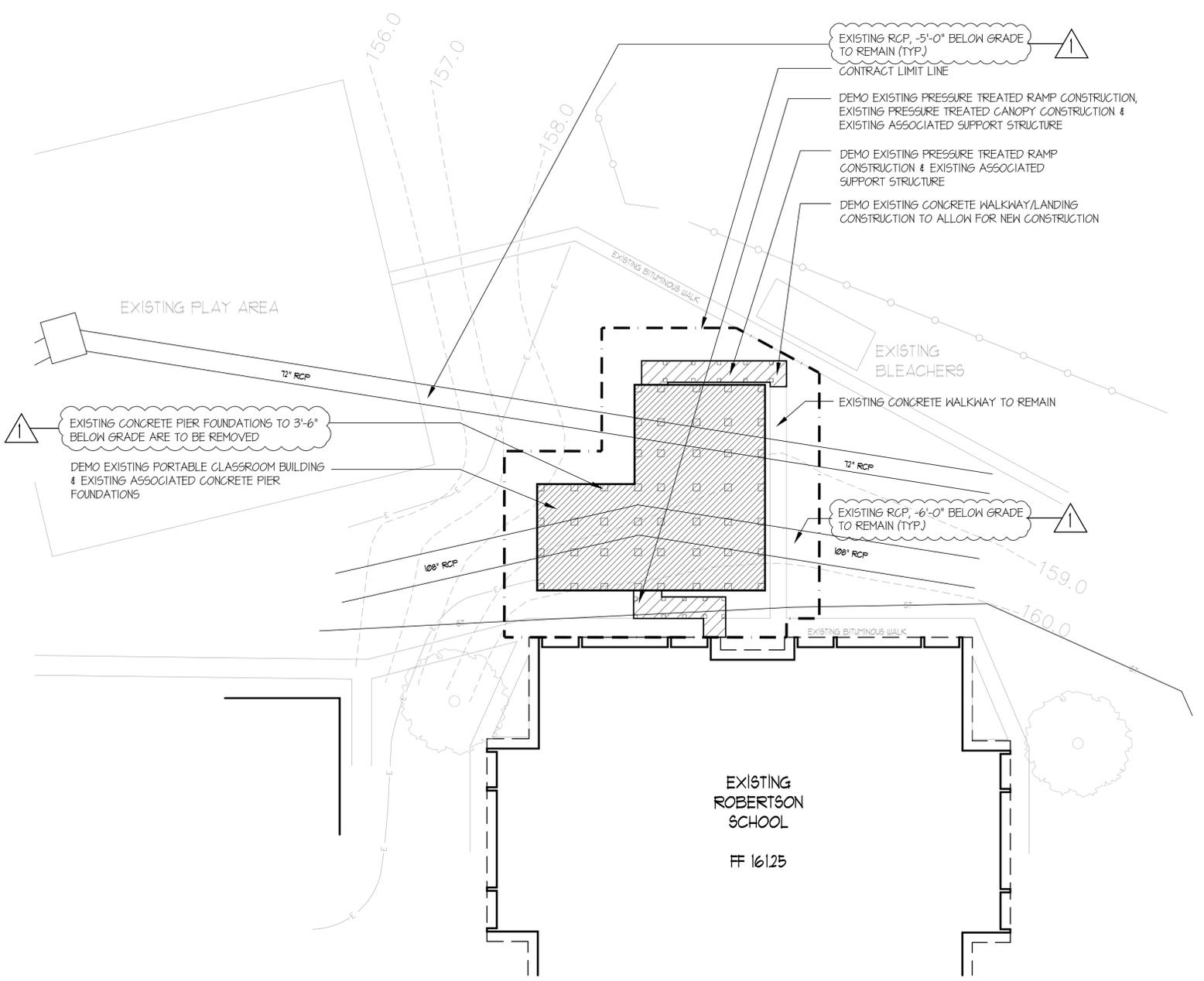
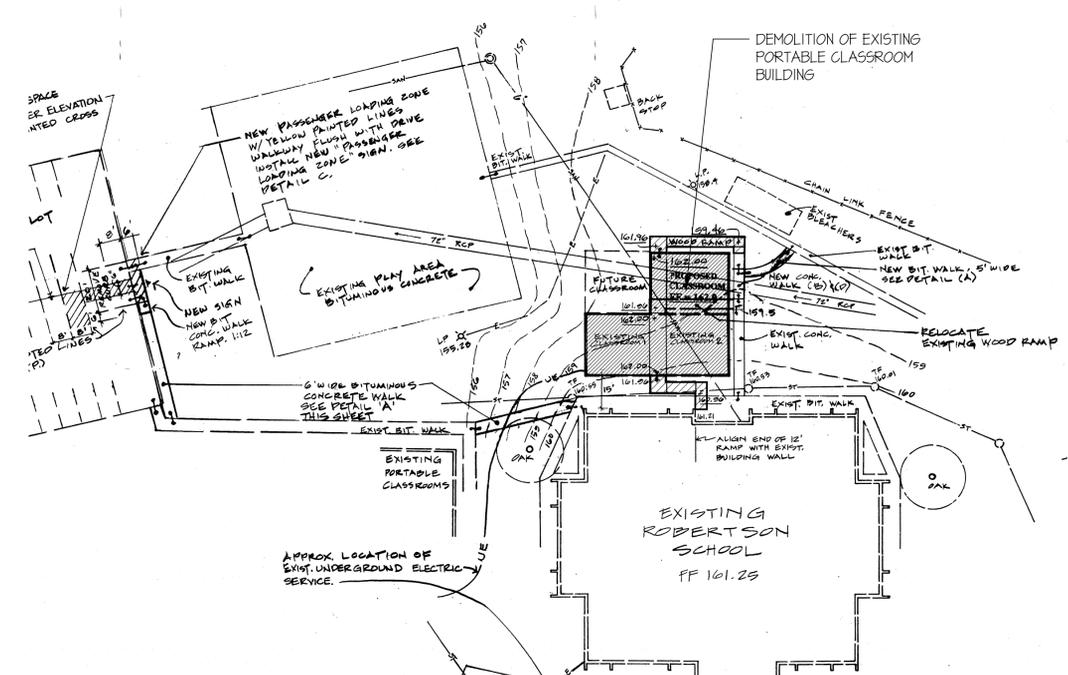
Patricia F. Brooks  
Manchester Public Schools  
Assistant Superintendent  
Finance and Management

### DEMO NOTES

1. CONTRACTOR RESPONSIBLE FOR REMOVAL OF DEMOLITION MATERIALS OFF SITE UNLESS OTHERWISE NOTED.
2. DEPTHS AND SIZES OF EXISTING RCP PIPES ARE TO BE FIELD VERIFIED AND PROTECTED DURING CONSTRUCTION AND DEMOLITION.
3. DRAINAGE PIPES MUST BE PROTECTED DURING CONSTRUCTION.
4. EXISTING CONCRETE PIER FOUNDATION DEPTHS AND LOCATIONS TO BE FIELD VERIFIED.
5. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE DUE TO CONSTRUCTION ACTIVITIES.
6. LOAM AND SEED ALL DISTURBED AREAS.
7. CONSULT PROJECT ARCHITECT TO CONFIRM FINAL GRADES IN FIELD.

### LEGEND

- CONTRACT LIMIT LINE
- ▨ PORTABLES DEMO
- ▨ RAMP DEMO



2 OVERALL SITE DEMO PLAN  
SCALE: 1" = 30'

1 SITE DEMOLITION PLAN  
SCALE: 1" = 20'

DATE:	3/3/2015
DRAWN BY:	LRC
SCALE:	AS NOTED
REVIEWED BY:	BRK
PROJECT NO.:	14-102B
	(L11) SITE DEMO

NO.	DATE	DESCRIPTION	REVISIONS PER	COMMENTS
1	5/4/15		TOMM ENG.	

# SITE DEMOLITION PLAN

# PLAN

ARCHITECT'S PROJECT NO. 2014-102B  
NEW PORTABLE CLASSROOMS  
ROBERTSON ELEMENTARY SCHOOL  
65 NORTH SCHOOL STREET  
MANCHESTER, CT

**FRIAR**  
ASSOCIATES INC.  
281 Farmington Avenue  
Farmington, CT. 06032

SHEET NO.  
**L1.1**



## INSTRUCTIONS TO PROPOSERS

These instructions are standard for all request for proposals issued by Manchester Public Schools, Manchester, CT, where a vendor is to furnish professional services, labor, materials and/or necessary equipment to complete a proposal as outlined in our detailed specifications. Manchester Public Schools (MPS) may delete, supersede or modify any of these standard instructions for a particular proposal.

- 1.0 The attached proposal is signed by the Proposer with full knowledge of an agreement with the general specifications, conditions and requirements of this Proposal.
- 1.1 Submit two (2) copies of the Proposal in an envelope marked with the Proposer's name and address on the upper left hand corner. Proposal shall be made out in the exact form of enclosed Proposal Form on proposer's letterhead and shall be signed by an officer of the company or corporation. **Proposals are to be plainly marked in the lower left hand corner with proposal number, name of proposal, opening date and time.**
- 1.2 **A mandatory site visit is scheduled for Thursday, July 23, 2015, at 10:00 a.m. at Robertson Elementary School, 65 North School Street, Manchester, CT 06042.**
- 1.3 Proposals received later than the date and time specified will not be considered. Amendments to or withdrawals of proposals received later than the date and time set for proposal opening will not be considered.
- 1.4 All deliveries of commodities shall comply with all applicable laws of the Federal Government and/or the State of Connecticut. Purchases made by MPS are exempt from the payment of Federal Excise Taxes and the State of Connecticut Sales Tax and such taxes must not be included in the proposal prices. All prices are FOB to Manchester, CT.
- 1.5 MPS reserves the right to reject any and all proposals, to waive technical defects and to make such awards including accepting a proposal, although not the low proposal, as it is deemed to be in the best interest of MPS.
- 1.6 MPS may withhold acceptance of work and payment when it is determined that said work or materials do not meet the specified requirements. Payment will not be made until work is to MPS official and/or authorized agent's satisfaction, and all work is certified.
- 1.7 MPS may make such investigation as deemed necessary to determine the ability of the Proposer to discharge his contract. The Proposer shall furnish MPS with all such information and data as may be required for this purpose. MPS reserves the right to reject any proposal if the Proposer fails to satisfactorily convince MPS that he/she is properly qualified by experience and/or does not have the facilities to carry out the worked called for herein. Conditional proposals will not be accepted.
- 1.8 ALL MEASUREMENTS ARE THE RESPONSIBILITY OF THE PROPOSER.
- 1.9 Specifications cannot be modified by anyone other than the assigned agent for MPS.

- 1.10 Successful proposer is responsible for obtaining all necessary building permits as required by State and Town authorities. Cost for permits is waived for work done on school property

2.1 **PERFORMANCE, LABOR AND MATERIALS BONDS**

- A. Successful proposer will be required to furnish a Performance, Labor and Materials bond of total proposal price within ten (10) business days of award notice, or prior to start of work, whichever occurs first. Bond must be from a corporate surety licensed to sign surety bonds in the State of Connecticut.
- 2.2 The successful proposers shall, after being awarded the contract, and before doing any work, furnish Certificates of Insurance, including Automobile Property Damage Liability, Public Liability and Workers Compensation Insurance in the amounts shown in APPENDIX A.

The contractor shall carry insurance under which Manchester Public Schools and the Town of Manchester, CT, shall be named as an additional insured for the duration of this work.

All Liability Insurance required herein shall be Comprehensive, General and Automobile Bodily Injury and Property Damage Policy or Policies.

Certificate of Contractor Liability shall be filed with the owner before work is started and contain a ten (10) day written notice of cancellation clause.

- 2.3 During construction the Contractor will keep the site clean and orderly at all times. Upon completion of the work called for, the contractor shall remove from the premises all rubbish, tools, equipment and the like, leaving said premises in a clean, safe and orderly condition.
- 2.4 All work done under this proposal must comply with all State and Town codes and licensed tradesmen will be used where applicable.
- 2.5 Payments for labor and material will only be made upon installation. No payments will be made for material stored on the site.
- 2.6 The work included in these specifications covers all labor, material equipment, and services required to complete what is listed in the Request for Proposal.
- 2.7 All work must be scheduled during normal MPS working hours.
- 2.8 The Contractor shall and does hereby, as part of the contract, guarantee all materials and workmanship to be of first quality and that the finished work will remain in satisfactory

- condition for a period of one (1) year from the date of final acceptance of work performed or as specified in the proposal. The date of acceptance is considered to be the date of final payment for the work involved.
- 2.9 The Contractor shall be required to submit the AFFIRMATIVE ACTION STATEMENT, APPENDIX B, with their completed proposal package. The successful Contractor shall comply in all respects with the Equal Employment Opportunity Act. Findings of non-compliance with applicable State and Federal equal opportunity laws and regulations will be sufficient reason for revocation or cancellation of this contract.
- 2.10 The contractor shall be required to complete the CONTRACTOR INDEMNIFICATION, APPENDIX C, with their completed proposal package.
- 3.0 **Code Requirements:** Contractors should be aware that all Public Schools are required by State and Federal regulations to comply with all laws pertaining to asbestos containing building materials (ACBM) in their schools.

It is required that any design professional and/or contractor that enters into a contractual agreement with MPS, pertaining to building renovations or additions shall ensure that all building materials specified and/or to be installed are of a non-asbestos material. In order to verify this, the owner requires the successful contractor to submit Material Safety Data Sheets (MSDS) detailing the building material.

All contractors/design professionals are encouraged to inspect the AHERA Asbestos Management Plan prior to commencing any work. Any questions regarding ACBM or this requirement should be addressed to the owner's Asbestos Management Planner.

Any asbestos encountered in construction shall be brought to the owner's attention prior to continuation of work. Removal will be done in accordance with all Federal, State and local laws and regulations.

**Disabilities Code Requirements:** In order to meet the needs of persons with disabilities, when applicable all items shall comply with the current Connecticut Basic Building Code including ICC/ANSI A 117.1-1998, Section 504 Rehabilitation Act 1973 including the Uniform Federal Accessibility Standards (UFA) and 504 Regulations, and the Americans with Disabilities Act Title II including Americans with Disabilities Act Accessibility Guidelines (ADAAG) and ADA Regulations.

Compliance with the current Connecticut Fire Safety Code and current OSHA – Title 29/Labor is also required when applicable. Contractor must provide proof of having attended OSHA 10 hour Construction Standard Training course for any projects over \$100,000 (effective July 2007).

The “items” shall include, but are not limited to; fixtures, furnishings, equipment, workstations (including built-ins), playground equipment, laboratory fume hoods, darkroom equipment, welding stations, shop equipment, etc.

- 3.1 There shall be no smoking or other use of tobacco products in any school building at any time, nor on school grounds during normal school hours. Proper attire is to be worn at all times. Contractor's personnel shall use extreme caution while driving motor vehicles on school property.
- 3.2 The Contractor shall not sublet, sell, transfer, assign or otherwise dispose of contract or any portion thereof or of his right, title or interest therein, or of his obligations thereunder, without consent of MPS.
- 3.3 **Hold Harmless:** The Contractor/Insured shall indemnify and hold harmless the owner and, if applicable, the engineer and their agents and employees from and against all claims, damages, losses and expenses, including attorney's fees of counsel selected by the owner, arising out of or resulting from the performance of the work and/or the supplying of materials, provided that any such claim, damage, loss or expense (a) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting there from, and (b) is caused in whole or in part by any negligent act or omission of the Contractor/Insured, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any them may be liable, regardless of whether or not they are caused in part by a party indemnified hereunder.
- 3.4 **Prevailing Wage Rates:** The wages paid on an hourly basis to any mechanic, laborer or workman employed upon the work herein contracted to be done and the amount of payment of contribution paid or payable on behalf of each such employee to any employee welfare fund defined in subsection (h) of this section (31-53 of the General Statutes,) shall be at a rate equal to the rate customary or prevailing for the same work in the same trade or occupation in the town in which such public works project is being constructed. Any contractor who is not obligated by agreement to make payment or contribution on behalf of such employee to any such employees' welfare fund shall pay to each employee as of his wages the amount of payment or contribution for his classification on each payday.

Upon the award of any contract subject to the provisions of this section the Contractor to whom such contract is awarded shall certify, under oath to the Labor Commissioner, the pay scale to be used by such contractor and any of his subcontractors for work to be performed under such contract. The Contractor shall fully comply with all provisions of Public Act 93-392 including weekly submitted of certified payrolls accompanied by a Compliance Statement and shall be subject to such sanctions mandated for violations of said Public Act.

The provisions of this section shall not apply where the total cost of all work to be performed by ALL Contractors and Subcontractors in connection with new construction of any public works project is less than Four Hundred thousand dollars or where the total cost of all work to be performed by ALL Contractors and Subcontractors in connection

with any remodeling refinishing, refurbishing, rehabilitation, alteration or repair of any public works project is less than ONE HUNDRED thousand dollars.

APPENDIX AINSURANCE REQUIREMENTS

- A. To the extent applicable, the amounts and types of insurance will conform to the minimum terms, conditions and coverage of Insurance Services Office (ISO) policies, forms and endorsements.
- B. If the Contractor/Insured has self-insured retentions or deductibles under any of the following minimum required coverage, the Contractor/Insured must identify on the certificate of insurance the nature and amount of such self-insured retentions or deductibles and provide satisfactory evidence of financial responsibility for such obligations. All self-insured retentions or deductibles will be the Contractor/Insured's sole responsibility.

- C. **Commercial General Liability:** The Contractor/Insured will maintain commercial general liability insurance covering all operations by or on behalf of the Contractor/Insured on an occurrence basis against claims for personal injury (including bodily injury and death) and property damage (including loss of use). Such insurance will have these minimum limits:

Minimum Limits:           \$1,000,000 each occurrence  
                                  \$2,000,000 each occurrence if blasting is required  
                                  \$2,000,000 general aggregate with dedicated limits per  
                                  Project site  
                                  \$2,000,000 products and completed operations aggregate  
                                  \$1,000,000 personal and advertising injury.

Should blasting be required, all necessary permits for the use of explosives shall be obtained by the contractor/insured or insured from the Fire Marshal.

- D. **Automobile Liability:** The Contractor/Insured will maintain business auto liability coverage for liability arising out of any auto, including owned, hired, and non-owned autos.

Minimum Limits:           \$1,000,000 combined single limit each accident

- E. **Worker's Compensation:** The contractor/insured will maintain workers' compensation and employer's liability insurance.

Minimum Limits:           Worker's compensation: statutory limit  
Employer's Liability:    \$1,000,000 bodily injury or each accident  
                                  \$1,000,000 bodily injury by disease for each employee  
                                  \$1,000,000 bodily injury disease aggregate

- F. **Umbrella/Excess Liability:** The contractor/insured will maintain umbrella/excess liability insurance on an occurrence basis of the underlying commercial general liability, auto liability and workers' compensation insurance. The coverage shall be at least as broad as each of the underlying policies. The amounts of insurance required may be satisfied by purchased coverage

for the limits specified or by any combination of underlying and umbrella limits, so long as the total amount of insurance is not less than the limit specified for general liability, auto liability and workers' compensation when added to the limit specified in this section.

Minimum Limits:       \$5,000,000 combined single limit and aggregate limit.

**APPENDIX B**

**MANCHESTER PUBLIC SCHOOLS  
45 North School Street  
Manchester, CT 06042**

TO: All Vendors  
FROM: Patricia F. Brooks, Assistant Superintendent,  
Finance and Management  
SUBJECT: Affirmative Action

Manchester Public Schools is an Equal Opportunity Employer, and will not transact business with firms which are not in compliance with all Federal and State Statutes and Executive Orders pertaining to non-discrimination.

In order to have your firm listed on our acceptable vendor's list and thereby be eligible for consideration as a source for goods and services, please complete and return the following Statement of Policy to:

Patricia F. Brooks  
Assistant Superintendent  
Finance and Management

**STATEMENT OF POLICY**

It is the employment policy of \_\_\_\_\_  
that there shall be no discrimination against anyone on the grounds of race, creed, national origin, sex or age in the hiring, upgrading, demotions, recruitment, termination and selections for training.

In addition, this firm is in full compliance with the letter and intent of the various Equal Opportunity and Civil Rights Statutes noted above.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signed (Name/Title of Company Officer)

\_\_\_\_\_  
Telephone

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
Fax

\_\_\_\_\_  
City/State/Zip Code

APPENDIX C

CONTRACTOR INDEMNIFICATION

The contractor shall at all times indemnify and save harmless Manchester Public Schools and its officers, agents and/or employees against any and all claims, demands, losses, judgments, costs, worker's compensation payments, litigation expenses and counsel fees arising out of injuries to the person (including death) or damage to property alleged to have been sustained by:

- a. officials, officers, agents and/or employees of MPS or;
- b. the contractor, his subcontractors or delivery persons or;
- c. any other person, whose injuries are alleged to have occurred on or near the work, or to have been caused in whole or in part by the acts, omissions or neglect of the contractor or his subcontractor or delivery persons by reason of his/her or their use of faulty, defective or unsuitable work.

The existence of insurance shall in no way limit the scope of this indemnification. The contractor further undertakes to reimburse MPS for damage to property of MPS caused by the contractor, or his employees, agents, subcontractors or delivery persons, or by faulty, defective or unsuitable material or equipment used by him or them.

STATE OF CONNECTICUT:

COUNTY OF: \_\_\_\_\_

Signed \_\_\_\_\_  
Contractor

By \_\_\_\_\_  
Name

\_\_\_\_\_  
Street

\_\_\_\_\_  
City/State/Zip Code

\_\_\_\_\_  
Date

Subscribed and Sworn to before me on this

\_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

\_\_\_\_\_  
Notary Public

APPENDIX D

NOTICE TO ALL CONTRACTORS, BUILDERS AND HOMEOWNERS

**Please pay particular attention to the following list of inspections. Requirements will be strictly adhered to.**

Pursuant to Section 113.0 of the State of Connecticut Basic Building code, the following inspections **are required** by the Manchester Building Department:

1. Site inspection – before permit is issued.
2. When footing forms are in place and before concrete is placed.
3. When foundation forms are in place and before concrete is placed.
4. After foundation is erected, waterproofed and footing drains installed.
- 4a. \*\*\*Before construction above foundation is started two “As Built” foundation location plans must be filed with the Building Department.
5. When forms for structural slabs, panels or columns are in place and before concrete is placed.
6. Fireplace when the top of the smoke chamber is reached.
7. 1<sup>st</sup> roof/felt/ice and water shield (nailing shall be at 6 nails per shingle including new construction.)
8. **Rough inspections:**  
Plumbing before any piping is concealed.  
(Complete duct work and plumbing shall be installed before electrical wiring is started.)  
Heating pipes and/or ducts before they are concealed.  
Electrical before any wiring is concealed.  
Framing before any interior wall covering is applied.  
Insulation before drywall.
9. Final inspections when all construction details and utility installations re: complete and house numbers, as designated by the Engineering Department, are installed.
10. Other inspections which may be requested by the building or contractor and/or required by the building official or his designee.
11. The permit holder or his agent shall notify the building official when the work is ready for inspections, **giving not less than seventy-two (72) hours’ notice.**

12. **Inspection for issuance of Certificates of occupancy requires a 10 day prior notification to the Building Department.**

**NOTE:** Complete duct work and plumbing shall be installed before electrical wiring is started.

**CONTRACT EXECUTION**

Upon notification of acceptance of this proposal, we shall execute a formal contract within five days of the receipt of the agreement for signing.

**CONTRACTOR INFORMATION**

**The Proposer is a/an (individual) (partnership) (corporation). Names and titles of other offices or partners are:**

**(for corporation, give State of incorporation and affix corporate seal)**

**I understand that full payment will be made by the Owner after completion of the project and acceptance by the Owner's representative.**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Name (Printed)**

## **CONTENT AND ORGANIZATION OF PROPOSAL**

The Request for Proposal (RFP) is intended to provide interested Proposers with information concerning the conditions and requirements for submitting proposals. Proposers must examine all information and materials contained in this RFP. **Failure to do so will be at the Proposer's risk.** In response to the RFP, Proposers shall adhere to the established format. By doing so, comparable objective data will be provided for Manchester Public Schools' (MPS) review and analysis. The Proposal shall contain the following sections, in order and format described.

### **A. Submittal Letter**

A letter of transmittal addressed to **Mrs. Patricia F. Brooks, Assistant Superintendent, Finance and Management**, which includes a statement by the Proposer accepting all terms, conditions and requirements contained in the RFP. The letter should also include a brief discussion of the Proposer's background, experience and ability to perform this contract in accordance with the scope of services. Also to be included is a listing of municipal or private sector references for whom recent (3 years or less) similar services were provided.

### **B. Price Proposal**

Vendors shall submit a price proposal which indicates their full cost to provide the scope of services outlined. All costs associated with the performance of these services must be clearly delineated.

### **C. Exceptions**

Proposers wishing to take any exceptions to any requirement in the RFP shall state and explain such exceptions. MPS may accept proposals which take exception to any requirements of the RFP. Any exception must be clearly delineated and cannot materially affect the substance of this RFP.

## **EVALUATION CRITERIA AND SELECTION**

Proposals will be reviewed and evaluated based upon the following factors:

- A. Experience and References
- B. Competitiveness of Price Proposal

MPS shall select that responsible and responsive Proposer whose proposal is determined by MPS to be best suited and most advantageous, and provides the greatest overall benefit to MPS on the basis of the criteria and/or factors of evaluation listed. MPS expressly reserves the right to negotiate with the selected Proposer prior to an award of any contract pursuant to the RFP.

**SPECIFICATIONS FOR DEMOLITION OF MODULAR CLASSROOM**

The following specifications are for the demolition of a modular classroom building comprised of three classrooms, located at Robertson Elementary School, 65 North School Street, Manchester, CT 06042. The pre-manufactured building is set on a concrete pier footing system. The structure consists of an EPDM low slope roof, fiber cement siding and trim, vinyl sliding windows, hollow metal doors, and acoustical tile ceiling systems. Packaged HVAC units will be evacuated of refrigerant prior to demolition by others. Electrical systems and fire alarm systems will be disconnected from the existing building by others. Walkways, landings, ramps and footings will be required to be removed/modified and the entire area will require additional fill and topsoil, and regrading. New walks will be required to be installed.

A. This Section includes the following:

1. Work covered by the Contract Documents.
2. Use of premises.
3. Owner's occupancy requirements.
4. Work restrictions.
5. Specification formats and conventions.

B. Related Sections include the following:

1. Division 1 Section "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities

**Manchester Public Schools' Project Manager is:**

Mr. Charles Cadman  
325 Olcott Street  
Manchester, CT 06040  
Office: 860-647-3511  
Cell: 860-250-1446  
Email: [chuckc@mpspride.org](mailto:chuckc@mpspride.org)

**Substantial completion date shall be August 21, 2015.**

**USE OF PREMISES**

- A. General: Contractor shall have limited use of premises for construction operations as indicated on Drawings by the Contract limits.
- B. Use of Site: Limit use of premises to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.
  1. Limits: Confine the parking of workmen's and construction vehicles, and the storage of construction materials to a designated staging area determined by the Owner.

2. Keep driveways and entrances clear and available to Owner, Owner's employees, and emergency vehicles at all times. Staging at access ways may be required in order to permit completion of the work of this Project. Do not use these areas for parking or storage of materials.
- C. Site Security: Continuously maintain the security of the building and the Work. Cooperate with the Owner in particularly sensitive areas where security and special safeguards are required. An Owner's Representative will provide access to the building at the beginning of each workday, and lock the building at the end of each workday.
1. Ensure that all windows, doors and other openings are secured at the end of each workday.
- D. Use of Existing Building: Maintain existing building in a weathertight condition throughout construction period. Repair damage caused by construction operations. Protect building and its occupants during construction period.

#### WORK RESTRICTIONS

- A. On-Site Work Hours: Work shall be generally performed outside the existing building during working hours between 6:00 a.m. to 4:00 p.m., Monday through Friday, except otherwise indicated. Any deviation of these work hours will need to be coordinated with the Owner's Representative.
1. Weekend Hours: Will only be permitted with written approval by the Owner's Representative.
  2. Hours for Utility Shutdowns: Coordinate with Owner's Representative. Provide proper notice with Owner's Representative.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
  2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

- a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
- C. In general, the Specifications will describe the “quality” of the work and the Drawings, the “extent” of the work. The Drawings and Specifications are cooperative and supplementary, however, and each item of work is not necessarily mentioned in both Drawings and the Specifications. All work necessary to complete the project, so described, is to be included in this Contract.
- D. In case of disagreement between Drawings and Specifications, or within either document itself, the Architect shall construe the Documents to require the better quality of greater quantity of work for the Owner that can reasonably be construed therefrom. Any work done by the Contractor without consulting the Architect, when the same requires a decision, shall be done at the Contractor’s risk.

#### SOCIAL SECURITY TAXES

- A. The Contractor and each Subcontractor shall pay the taxes measured by the wage of all their employees as required by the Federal Social Security Act all amendments thereto, and accept the exclusive liability for said taxes. The Contractor shall also indemnify and hold the Owner, and its respective officers, agents and servants, and the Architect harmless on account of any tax measured by the wages aforesaid of employees of the Contractor and his Subcontractors, assessed against the Owner under authority of said law.

#### UNEMPLOYMENT INSURANCE

- A. The Contractor and each Subcontractor shall pay unemployment insurance measured by the wages of his employees as required by law and accept the exclusive liability for said contributions. The Contractor shall also indemnify and hold harmless the Owner and the Architect on account of any contribution measured by the wages of aforesaid employees of the Contractor and his Subcontractors, assessed against the Owner under authority of law.

#### OCCUPATIONAL SAFETY AND HEALTH ACT

- A. The Contractor shall comply with the requirements of the Occupational Safety and Health Act of 1970 and the Construction Safety Act of 1969, including all standards and regulations which have been promulgated by the Governmental Authorities which administer such Acts and said requirements, standards and regulations are incorporated herein by reference.

#### CUTTING AND PATCHING

#### RELATED DOCUMENTS

- A. The Contractor, Subcontractors, and/or suppliers providing goods or services referenced in or related to this Section shall also be bound by the Documents identified in “Summary”, “Related Documents.”

## SUMMARY

- A. This Section includes procedural requirements for cutting and patching.
- B. Related Sections include the following:
  - 1. "Selective Demolition" for demolition of selected portions of the building.

## DEFINITIONS

- A. Cutting: Penetration of in-place construction necessary to permit installation or performance of other work, including the removal of debris.
- B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

## SUBMITTALS

- A. Cutting and Patching Proposal: Submit a proposal describing procedures at least 10 days before the time cutting and patching will be performed, requesting approval to proceed. Include the following information:
  - 1. Extent: Describe cutting and patching, show how they will be performed, and indicate why they cannot be avoided.
  - 2. Changes to In-Place Construction: Describe anticipated results. Include changes to structural elements and operating components as well as changes in building's appearance and other significant visual elements.
  - 3. Products: List products to be used and firms or entities that will perform the Work.
  - 4. Dates: Indicate when cutting and patching will be performed.
  - 5. Utility Services and Mechanical/Electrical Systems: List services/systems that cutting and patching procedures will disturb or affect. List services/systems that will be relocated and those that will be temporarily out of service. Indicate how long services/systems will be disrupted.
  - 6. Structural Elements: Where cutting and patching involve adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with original structure.

## CLEANUP AND REFUSE:

- A. The contractor will dispose of all refuse and waste material at his expense in containers provide by the contractor, and in accordance with all federal, state, and local Laws and Regulations.
- B. The Contractor shall assume all costs and responsibilities for all new and good quality materials, labor, equipment, materials, tools, and vehicles required for the services covered under this document. MPS will not provide any labor, equipment, tools, or vehicles nor assist with nor accept responsibility for any of the covered services. However, MPS reserves the right to purchase material or rent equipment needed for specific jobs with the Contractor only to provide labor. The Project Manager will accompany the Contractor to the work area and will provide access to the worksite.
- C. The Contractor shall notify the Project Manager of any project related discrepancies found during performance of the work. Prior to commencing any work which incurs additional cost for a project, a separate Delivery/Order Form, detailing the additional cost, shall be prepared and approved by both MPS and the Contractor.
- D. The Contractor shall cooperate with MPS to minimize conflict and to facilitate the occupant's operations.
- E. The Contractor shall immediately notify the Project Manager both verbally and by a follow-up letter, of any discrepancies found during performance of any services, which may adversely affect the execution of the contract, which may include actual or potential damage, hazard, or impairment to the School's operation. Any additional cost to MPS shall be subject to the approval of the Assistant to the Superintendent, Finance and Management or his/her designee.
- F. The Contractor shall be responsible for verifying exact locations, dimensions, measurements, and other data, which may affect the services performed under the contract. Any breakage or damage occurring during the performance of any work shall be promptly repaired or replaced by the Contractor, at no additional cost and to the Project Manager's satisfaction. Failure of the Contractor to meet all requirements of this section shall be cause for termination of the contract.

## MATERIALS OWNERSHIP

- A. Unless otherwise indicated, demolition waste becomes property of Contractor.
- B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.
  - 1. Carefully salvage in a manner to prevent damage and promptly return to Owner.
- C. Items to be removed, stored and returned to Owner:
  - 1. All Fire Alarm devices, to include:
    - a. 5 Combination horn/strobes

- b. 6 smoke detectors
  - c. 2 pull stations with “Stopper II” covers
  - d. 2 fire extinguishers with mounting brackets
2. Door Hardware to include:
- a. 1 access control card reader with associated electronics
  - b. 2 Sargent exit devices with cylinders
  - c. 9 cylindrical locksets with cylinders
  - d. 8 door closers
3. Lighting products:
- a. 5 Emergency light fixtures
  - b. 2 emergency light remote heads
  - c. 8 exit signs
  - d. 2 motion sensors
  - e. ALL prismatic light fixture diffusers
4. Miscellaneous materials:
- a. 2 Overhead Projectors with ALL associated wiring
  - b. 3 Clocks
  - c. 3 wall phones
  - d. 6 whiteboards
  - e. 6 cork bulletin boards
  - f. 3 pull down screens

#### INFORMATIONAL SUBMITTALS

- A. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property, for environmental protection , for dust control and, for noise control. Indicate proposed locations and construction of barriers.
- B. Schedule of selective demolition activities with starting and ending dates for each activity.
- C. Pre-demolition photographs or video.
- D. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician.

#### CLOSEOUT SUBMITTALS

- A. Inventory of items that have been removed and salvaged.

#### QUALITY ASSURANCE

- A. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.

#### FIELD CONDITIONS

- A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.
- B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.
- C. Notify Owner of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- D. Hazardous Materials: It is expected that hazardous materials will be encountered in the Work. Types of hazardous materials anticipated to be encountered include: Fluorescent lamps, fluorescent lamp ballasts, roofing cements, window caulks.
  - 1. Hazardous materials will be removed during the course of the Work.
- E. Storage or sale of removed items or materials on-site is not permitted.

#### PERFORMANCE REQUIREMENTS

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ASSE A10.6 and NFPA 241.

#### UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.
  - 1. Owner will arrange to shut off indicated services/systems when requested by Contractor.
  - 2. Arrange to shut off utilities with utility companies.
  - 3. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
  - 4. Disconnect, demolish, and remove HVAC systems, equipment, and components to be removed.

## PROTECTION

- A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.
- B. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.
- C. Remove temporary barricades and protections where hazards no longer exist.

## SELECTIVE DEMOLITION

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
- C. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

## CLEANING

- A. Remove demolition waste materials from Project site and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction. And recycle or dispose of them according to Section 017419 "Construction Waste Management and Disposal."
  - 1. Do not allow demolished materials to accumulate on-site.
  - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
  - 3. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
  - 4. The contractor may choose to utilize the Manchester Landfill for disposal of demolition waste. The contractor shall be responsible for adhering to ALL landfill rules and regulations. **Tipping fees** typically charged for dumping at the Manchester Landfill will be waived.

- B. Burning: Do not burn demolished materials.
- C. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began

## EXCAVATION

### SUMMARY

- A. Section Includes:
  - 1. Soil densification.
  - 2. Excavating for building foundations.
  - 3. Excavating for site structures.
  - 4. Excavating for landscaping.
- B. Related Sections:
  - 1. Fill
  - 2. Erosion Controls: Slope protection and erosion control.

### REFERENCES

- A. Comply with Town of Manchester utility standards when working within 24 inches of utility lines.
- B. Comply with Construction Standards for Excavations, published by the United States Department of Labor, Occupational Safety and Health Administration, 29 CFR Part 1926, Subpart P.
- C. Obtain required permits from fire marshal and other authorities.

### SUBMITTALS

Requirements for submittals.

- A. Excavation Protection Plan: Describe sheeting, shoring, and bracing materials and installation required to protect excavations and adjacent structures and property; include structural calculations to support plan.

- B. Shop Drawings: Indicate soil densification grid for each size and configuration footing requiring soils densification.

#### DEFINITIONS

- A. Excavation: Removal of material encountered for foundations.
- B. Rock: Solid mineral material with a volume in excess of 1 cubic yard or solid mineral material that cannot be removed with a 1 cubic yard capacity power shovel without mechanical, drilling, or blasting means.
- C. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- D. Subgrade or Subsoil: Surface or elevation remaining after completing excavation, or top surface of a fill or backfill immediately below subbase, drainage fill, or topsoil materials.
- E. Utilities include on-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

#### BLASTING MATERIALS

- A. No blasting of material will be permitted for the project.

#### PREPARATION

- A. Familiarization: Prior to all work of this section, the Contractor shall become thoroughly familiar with the site, the building and site conditions, and all portions of the work covered by this section. The Contractor shall satisfy himself, by actual examination of the site of the work, as to the existing conditions, contours and the elevations and the amount of work required under this section.
- B. Call Local Utility Line Information service “Call Before You Dig” at 1-800-922-4455 not less than three working days before performing Work, in accordance with Public Act 77-350.
  - 1. Request underground utilities to be located and marked within and surrounding construction areas.
- C. Identify required lines, levels, contours, and datum.
- D. Protect utilities indicated to remain from damage.
- E. Protect plant life, lawns, rock outcroppings and other features remaining as portion of final landscaping.

- F. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from damage due to construction activities.
  - 1. Protect subgrades and foundation soils against freezing temperatures or frost. Provide protective insulating materials as necessary.
  - 2. Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

#### GENERAL EXCAVATION

- A. Underpin adjacent structures which may be compromised by excavation work.
- B. Excavate subsoil to accommodate building foundations, slabs-on-grade paving, site structures, retaining wall foundations, and other miscellaneous construction operations.
- C. Compact disturbed load bearing soil in direct contact with foundations to original bearing capacity.
- D. Slope banks to angle of repose or less until shored.
- E. Do not interfere with 45 degree bearing splay of foundations.
- F. Grade top perimeter of excavation to prevent surface water from draining into excavation.
- G. Trim excavation. Remove loose matter.
- H. Remove lumped subsoil, boulders, and rock up to 1/3 cu yd measured by volume.
- I. Notify Architect/Engineer of unexpected subsurface conditions.
- H. Correct areas over excavated with structural fill as
- I. Remove excess and unsuitable material from site.
- J. Repair or replace items indicated to remain that have been damaged by excavation at no additional expense to the Owner.

#### EXCAVATION FOR WALKS AND PAVEMENTS

- A. Excavate surfaces under walks and pavements to indicated cross sections, elevations, and grades.

#### UNAUTHORIZED EXCAVATION

- A. Fill unauthorized excavation under foundations or wall footings at no additional cost to the Owner by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill may be used when approved by Owner's Representative. Fill unauthorized excavations under other construction or utility pipe as directed by Owner's Representative.

#### FIELD QUALITY CONTROL

- A. Notify Owner when excavations have reached required subgrade and request visual inspection of bearing surfaces by Engineer before installing subsequent work.
- B. If Owner's Representative determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
  - 1. Additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
- C. Proof roll subgrade with heavy pneumatic-tired equipment to identify soft pockets and areas of excess yielding. Do not proof roll wet or saturated subgrades.
- D. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Owner's Representative.

#### PROTECTION

- A. Prevent displacement or loose soil from falling into excavation; maintain soil stability.
- B. Protect bottom of excavations and soil adjacent to and beneath foundation from freezing.
- C. Protect structures, utilities and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth operations.

## EROSION CONTROLS

### A. Section Includes:

1. Inlet Protection.
2. Silt Fence.
3. Baled Hay.
4. Sediment Traps.

### B. Related Sections:

1. Excavation
2. Fill

## REFERENCES

### A. American Association of State Highway and Transportation Officials:

1. AASHTO T88 - Standard Specification for Particle Size Analysis of Soils.
2. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.

### B. ASTM International:

1. ASTM C127 - Standard Test Method for Density, Relative Density (Specific Gravity), and Absorption of Coarse Aggregate.
2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)).
3. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>)).
4. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
5. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

### C. Precast/Prestressed Concrete Institute:

1. PCI MNL-116S - Manual for Quality Control for Plants and Production of Precast and Prestressed Concrete Products.

D. Connecticut Council on Soil and Water Conservation:

1. "2002 Connecticut Guidelines for Soil Erosion and Sediment Control" as supplemented.

SILT FENCE

C. Fabricated or prefabricated unit consisting of the following filter fabric properties:

1. Grab Tensile Strength (lbs) 120 ASTM D4632
2. Elongation at Failure (%) 12.5 ASTM D4632
3. Mullen Burst Strength (psi) 285 ASTM D3786
4. Puncture Strength (lbs) 62 ASTM D4833
5. Trapezoidal Tear (lbs) 60 ASTM D4533
6. Permittivity (sec -1) 0.04 ASTM D-4491
7. UV Resistance @500 hours (%) 75 ASTM D-4355

SILT SACK

D. SILTSACK Regular Flow with following properties:

1. Grab Tensile Strength (lbs) 300 ASTM D4632
2. Elongation at Failure (%) 15 ASTM D4632
3. Mullen Burst Strength (psi) 750 ASTM D3786
4. Puncture Strength (lbs) 125 ASTM D4833
5. Flow Rate (gal/min/sf) 180 ASTM D-4491
6. UV Resistance @500 hours (%) 75 ASTM D-4355

SOURCE QUALITY CONTROL (AND TESTS)

- A. Section 01 40 00 - Quality Requirements: Testing, inspection and analysis requirements.

- B. Allow witnessing of inspections and test at manufacturer's test facility. Notify Architect/Engineer at least seven days before inspections and tests are scheduled.

#### EXAMINATION

- A. Administrative Requirements: Verification of existing conditions before starting work.
- B. Verify gradients and elevations are correct.
- C. Avoid displacement of underlying material. Arrange individual rocks for uniform distribution.

#### INLET PROTECTION DEVICES

- A. Install Siltsacks® in catch basins in accordance with manufacturer's instructions

#### SILT FENCE

- A. Excavate a 6 inch trench along the upstream side of the desired fence location.
- B. Drive fence posts a minimum of 1'-6" into the ground. Install fence, well-staked at maximum eight foot intervals in locations as shown on Drawings. Secure fabric to fence and bury fabric end within the six inch deep trench cut.
- C. Lay lower 12 inches of silt fence into the trench, 6 inches deep and 6 inches wide. Backfill trench and compact.
- D. Overlap joints in fabric at post to prevent leakage of silt at seam.

#### BALED HAY

- A. Excavation shall be to the width of the bale and the length of the proposed barrier to a minimum depth of 4 inches.
- B. Bales shall be placed in a single row, lengthwise on proposed line, with ends of adjacent bales tightly abutting one another. In swales and ditches the barrier shall extend to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale.
- C. Staking shall be accomplished to securely anchor bales by driving at least two stakes or rebars through each bale to a minimum depth of 18 inches.
- D. The gaps between bales shall be filled by wedging straw in the gaps to prevent water from escaping between the bales.
- E. The excavated soil shall be backfilled against the barrier. Backfill shall conform to ground level on the downhill side and shall be built up to 4 inches on the uphill side. Loose straw shall then be scattered over the area immediately uphill from a straw barrier.

- F. Inspection shall be frequent and repair or replacement shall be made promptly as needed.

#### DUST CONTROL

- A. Throughout the project the Contractor shall carry on an active program for the control of fugitive dust within all site construction zones, or areas disturbed as a result of construction. Control methods shall include the following: Apply calcium chloride at a uniform rate of one and one-half (1-1/2) pounds per square yard in areas subject to blowing. For emergency control of dust apply water to affected areas. The source of supply and the method of application for water are the responsibility of the Contractor. The Contractor shall comply with all applicable requirements of the stormwater discharge permit for construction.
- B. The frequency and methods of application for fugitive dust control shall be as directed by the Architect with concurrence by the Engineer

#### FIELD QUALITY CONTROL

- A. Quality Requirements - Execution and Closeout Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Inspect erosion control devices on a weekly basis and after each runoff event. Make necessary repairs to ensure erosion and sediment controls are in good working order.

#### CLEANING

- G. Execution and Closeout Requirements: Requirements for cleaning.
- H. When sediment accumulation in sedimentation structures has reached a point one-third depth of sediment structure or device, remove and dispose of sediment.
- I. Do not damage structure or device during cleaning operations.
- D. Do not permit sediment to erode into construction or site areas or natural waterways.
- E. Clean channels when depth of sediment reaches approximately one half channel depth.

## TURF AND GRASSES

### A. Section Includes:

1. Seeding.
2. Hydroseeding.
3. Erosion-control material(s).

### B. Related Sections:

1. "Erosion Controls".

## DEFINITIONS

- A. Duff Layer: The surface layer of native topsoil that is composed of mostly decayed leaves, twigs, and detritus.
- B. Finish Grade: Elevation of finished surface of planting soil.
- C. Manufactured Topsoil: Soil produced off-site by homogeneously blending mineral soils or sand with stabilized organic soil amendments to produce topsoil or planting soil.
- D. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. This includes insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. It also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
- E. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. These include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
- F. Planting Soil: Standardized topsoil; existing, native surface topsoil; existing, in-place surface soil; imported topsoil; or manufactured topsoil that is modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.
- G. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or top surface of a fill or backfill before planting soil is placed.
- H. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
- I. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil, but in disturbed areas such as urban environments, the surface soil can be subsoil.

## SUBMITTALS

- A. Product Data: For each type of product indicated.
  - 1. Pesticides and Herbicides: Include product label and manufacturer's application instructions specific to this Project.
- C. Certification of Grass Seed: From seed vendor for each grass-seed monostand or mixture stating the botanical and common name, percentage by weight of each species and variety, and percentage of purity, germination, and weed seed. Include the year of production and date of packaging.
  - 1. Certification of each seed mixture for turfgrass sod. Include identification of source and name and telephone number of supplier.
- D. Product Certificates: For soil amendments and fertilizers, from manufacturer.
- E. Maintenance Instructions: Recommended procedures to be established by Owner for maintenance of turf during a calendar year. Submit before expiration of required initial maintenance periods.

## QUALITY ASSURANCE

- A. Installer Qualifications: A qualified landscape Installer whose work has resulted in successful turf establishment.
  - 1. Pesticide Applicator: State licensed, commercial.

## DELIVERY, STORAGE, AND HANDLING

- A. Seed and Other Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of conformance with state and federal laws, as applicable.
- B. Bulk Materials:
  - 1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
  - 2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
  - 3. Accompany each delivery of bulk fertilizers, lime, and soil amendments with appropriate certificates.

## PROJECT CONDITIONS

- A. Planting Restrictions: Plant during one of the following periods. Contractor responsible for all maintenance until Substantial Completion.
  - 1. Spring Planting: April 1 - June 15.
  - 2. Fall Planting: August 15 - October 1.
- B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

## TOPSOIL

- A. Shall be clean, fertile, friable and well-draining; not to contain materials harmful to plant life. All topsoil to be free of any subsoil earth clods, sods, stones over the specified size in any dimension, sticks, roots, weeds, litter and other deleterious material. Topsoil shall be uniform in quality and texture, and contain specified organic matter and mineral elements necessary for sustaining healthy plant growth. Rock fragments over one-inch in diameter shall not exceed two-percent by volume. Topsoil shall be free of any toxic chemical, waste or any material or condition that would prevent the establishment of suitable lawn. All imported off-site topsoil shall be obtained from a single source. Topsoil shall have a pH of 6.0 to 8.0. Organic matter contents shall be 4 to 8%. Soil texture shall meet the USDA Soils Texture Classification percentages for sand, silt and clay for 'Sandy Loam' with not less than 75% sand.

## SEED

- A. Grass Seed: Fresh, clean, dry, new-crop seed complying with AOSA's "Journal of Seed Technology; Rules for Testing Seeds" for purity and germination tolerances.
- B. Seed Species: State-certified seed of grass species as follows:
- C. Seed Species: Seed of grass species as follows, with not less than 95 percent germination, not less than 85 percent pure seed, and not more than 0.5 percent weed seed:
  - 1. Manhattan 5 Seed Mix.

## PLANTING SOILS

- A. Planting Soil: ASTM D 5268 topsoil, with pH range of 5.5 to 7, a minimum of 2 percent organic material content; free of stones 1 inch or larger in any dimension and other extraneous materials harmful to plant growth. Mix ASTM D 5268 topsoil with the soil amendments and fertilizers in the quantities recommended by the soil analysis to produce planting soil.

- B. Planting Soil: Existing, native surface topsoil formed under natural conditions with the duff layer retained during excavation process and stockpiled on-site. Verify suitability of native surface topsoil to produce viable planting soil. Clean soil of roots, plants, sod, stones, clay lumps, and other extraneous materials harmful to plant growth.
  - 1. Supplement with another specified planting soil when quantities are insufficient.
  - 2. Mix existing, native surface topsoil with the soil amendments and fertilizers in the quantities recommended by the soil analysis to produce planting soil.

#### MULCH

- A. Straw Mulch: Provide air-dry, clean, mildew- and seed-free, salt hay or threshed straw of wheat, rye, oats, or barley.

#### PESTICIDES

- A. Pesticides are prohibited by State of Connecticut Regulations from use on school grounds.

#### EROSION-CONTROL MATERIALS

- A. Erosion-Control Fiber Mesh: Biodegradable burlap or spun-coir mesh, a minimum of 0.92 lb/sq. yd., with 50 to 65 percent open area. Include manufacturer's recommended steel wire staples, 6 inches long.

#### EXAMINATION

- A. Examine areas to be planted for compliance with requirements and other conditions affecting performance.
  - 1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
  - 2. Do not mix or place soils and soil amendments in frozen, wet, or muddy conditions.
  - 3. Suspend soil spreading, grading, and tilling operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
  - 4. Uniformly moisten excessively dry soil that is not workable and which is too dusty.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

- C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Architect and replace with new planting soil.

#### PREPARATION

- A. Protect structures, utilities, sidewalks, pavements, and other facilities, trees, shrubs, and plantings from damage caused by planting operations.
  - 1. Protect adjacent and adjoining areas from hydroseeding and hydromulching overspray.
  - 2. Protect grade stakes set by others until directed to remove them.
- B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

## TURF AREA PREPARATION

- A. Limit turf subgrade preparation to areas to be planted.
- B. Verify topsoil placement has been completed and accepted. Verify required permeability has been tested and approved. All disturbed areas not developed otherwise shall be developed as lawn as indicated on the Drawings and as specified. Provide additional topsoil where and as required to properly meet all proposed finish grades. Remove weeds, debris, foreign matter and stones having any dimensions greater than  $\frac{3}{4}$ ".
- C. Fine grade to a smooth uniform surface Grades shall be within specified tolerances. The entire area shall present an even grade with no depressions where water will stand. Topsoil shall be smooth blended to existing finish grades around trees, erosion control devices and adjacent existing conditions, maintain exiting surface drainage patterns. Smoothly round-off all top and toe of slopes. Reinstall erosion control devices and protective fencing as required.
- D. Determine the bulk density of the topsoil prior to approval of finish grade, using an approximate method outlined in C.A. Black (ed) Methods of Soil Analysis, Part 1, American Society of Agronomy, 1965. Final bulk density of the topsoil shall have a mean value of approximately 1.35 g cm<sup>-3</sup> (85 lbs. per cu. ft) taken from 5 samples from each field with no value exceeding 1.40 g cm<sup>-3</sup> (88 lbs. per cu. ft.).
- E. Newly Graded Subgrades: Loosen subgrade to a minimum depth of 4 inches (6" in areas used for staging, parking or construction activity. Remove stones larger than 1 inch in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.
  1. Apply superphosphate fertilizer directly to subgrade before loosening.
  2. Thoroughly blend planting soil off-site before spreading or spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil.
    - a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.
    - b. Mix lime with dry soil before mixing fertilizer.
  3. Spread planting soil to a depth of 6 inches but not less than required to meet finish grades after light rolling and natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.
    - a. Spread approximately 1/2 the thickness of planting soil over loosened subgrade. Mix thoroughly into top 4 inches of subgrade. Spread remainder of planting soil.
    - b. Reduce elevation of planting soil to allow for soil thickness of sod.