HUB TESTING LABORATORY, INC.

Environmental Testing Service

95 Beaver Street - Waltham, MA 02453
(781) 893-8330 (781) 893-4414 (fax)

May 14, 2002

Jeff Dill
Energy Manager

Haverhill High School
137 Monument Street
Haverhill, MA 01832

RE: Floor Tile and Mastic Removal, 1st floor, C Wing, High School

Jeff:

We have prepared a design and bid form for the asbestos floor tile removal as we discussed and have invited five licensed contractors to submit prices.

We have also discussed this with Buddy Baker and the bids will be faxed to his office next Tuesday, May 21 for approval. Should everything go smoothly the work should be completed prior to close of school so the next phase of construction can be started.

I have enclosed a copy of the document for your information.

Sincerely,

Fred

Frederick T. Boyle

cc. Roger Young
Edward Dufresne, w/document
Bernard Baker, w/document

NOTICE TO BIDDERS

Scope of Work: The Contractor shall furnish all labor, equipment, materials, and accessories necessary for removing specific asbestos containing floor tile at the Haverhill High School, Haverhill, Massachusetts in accordance with the requirements of the Commonwealth of Massachusetts and all Federal Regulations.

Bid Due Date: Bids are for the Removal of Asbestos Containing Materials. This bid price does note include replacement of any other materials. Bid may be sent by fax to the Haverhill Purchasing Department at (978) 521-4348 no later than 2:00 p.m. on Tuesday, May 21, 2002.

Representation: Haverhill Public Schools, Director of Business has designated Hub Testing Laboratory, Inc. of 95 Beaver Street, Waltham, MA 02453, as Owner Representative. As the Owner's Representative, Hub Testing Laboratory, Inc., Tel. (781) 893-8330, Fax. (781) 893-4414, has the power to ascertain the progress of the project and to act for the owner in all phases of contract performance.

Wages: Prevailing wage rates are located within this section of the bid document. Under regulation, which is effective as of May 7, 1993, every contractor and subcontractor on Approved School Projects must submit weekly payroll records as a condition of receiving payment for their work. 603 CMR 38.03(2) k states "Every contractor and subcontractor working under the terms of any contract for construction on an approved school project shall file weekly payroll records with the awarding authority in the form described in M.G.L. c.149, s. 27B. The awarding authority shall withhold payment for any construction work performed on an approved school project for so long as the payroll records for the work performed are not filed with the awarding authority.

Note: No Pre-bid inspection is planned, however, the Contractor is invited to view the site by contacting the Principal of Haverhill High School, Mr. Kevin Soraghan at (978) 374-5700 to walk through after 3:00 p.m., Thursday, May 16, 2002.

PURCHASING DEPARTMENT
CITY HALL, ROOM 105
FOUR SUMMER STREET
HAVERHILL, MA 01830-5875
Tel. (978) 374-2309, Facsimile (978) 521-4348

FORM FOR GENERAL BID

S.B. No: H0502-H
Dept.
Req.

Bid Due Date: May 21, 2002

TO THE CITY OF HAVERHILL, MA (the Awarding Authority):

A. The undersigned proposes to furnish all labor and material required for_____, in accordance with the accompanying contract Documents, plans and specifications, for the Contract Price specified below, subject to additions and deductions according to the terms of the Specifications.

B. This BID includes Addenda numbered _____.

C. The proposed CONTRACT PRICE is:

_____

U.S. DOLLARS ($_____).

D. No bid security is required.

E. The undersigned agrees that, if he is selected as General Contractor, he will within five days, Saturdays, Sundays, and legal holidays excluded, after presentation thereof by the Awarding Authority, execute a Contract in accordance with the terms of this bid and furnish a performance bond and also a labor bond and materials or payment bond, each of a surety company qualified to do business under the laws of the Commonwealth of Massachusetts and satisfactory to the Awarding Authority and each in the sum of one hundred percent (100%) of the Contract Price, the premiums for which are to be paid buy the General Contractor and are included in the Contract Price.

F. The undersigned hereby certifies that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the work and that he will comply fully with all laws and regulations applicable to awards made subject to section forty-four A of Chapter 149.

G. The undersigned further certifies under the penalties of perjury that this bid is in all respects *bona fine*, fair and made without collusion or fraud with any other person, The word "person" shall mean any natural person, joint venture, partnership, corporation or other business or legal entity.

ARTICLE 4. EQUAL OPPORTUNITY. The CONTRACTOR in the performance of all work under THIS CONTRACT will not discriminate on the grounds of race, color, sex, age, religious creed, disability, national origin or ancestry, sexual orientation, marital status, family status, military status, or source of income in the employment practices or in the selection or retention of subcontractors, and in the procurement of materials and rental equipment. The CITY may cancel, terminate or suspend the contract in whole or in part for any violation of this Article.

ARTICLE 5. ASSIGNABILITY. The CONTRACTOR shall not assign, sell, subcontract or transfer any interest in THIS CONTRACT without prior written consent of the CITY.

IN WITNESS WHEREOF, the parties hereto have caused this AGREEMENT to be executed in three (3) original copies on the day and year first above written.

For the City of Haverhill:

_____
John J. Guerin, Jr., Mayor

_____
(Dept. Head)

_____
Bernard E. Baker
City Purchasing Agent

I Certify that $_____
in Funds are available for
this contract pursuant to MGL ch.41§31(c):

_____
William J. Klueber, City Auditor

For the Contractor:

_____
Authorized Representative

Title:_____

Date:_____

Federal ID#_____

Approved as to Form:

_____
Michael Hart
City Solicitor

Witness:

_____
Brenda Norris, Purchasing Clerk

Certifications

I,_____, certify that I am the _____of the corporation named at Contractor herein; that _____who signed this Agreement on behalf of the Contractor was then_____ of said corporation; that said Agreement was duly signed for on behalf of said corporation by authority of its governing body, and is within the scope of its corporate powers

_____

_____

Corporate

Seal

TOTAL P.06

WAGE RATES

JANE SWIFT
Governor

DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
DIVISION OF OCCUPATIONAL SAFETY

Minimum Wage Rates

As determined by the Deputy Director under the provisions of the Massachusetts General Laws, Chapter 149, Section 26 to 27H

ANGELO BUONOPANE
Director
ROBERT J. PREZIOSO
Deputy Director

RECEIVED
MAR 0 8 2002
PURCHASING DEPT.

Awarding Authority: CITY OF HAVERHILL
Contract Number: **City/Town:** HAVERHILL
Description Of Work: ISOLATED REPAIR NOT ASSOC. W/LGR. PROJECT (6 MOS)
Job Location: VALID FROM 3/7/02 THRU 9/07/02

Classification	Effective Dates and Total Rates							
AIRTRACK OPERATOR	12/01/2001	$29.100	06/01/2002	$29.650	12/01/2002	$30.200	06/01/2003	$30.850
	12/01/2003	$31.500						
ASBESTOS REMOVER - LABORER	12/01/2001	$30.350	06/01/2002	$30.900	12/01/2002	$31.450	06/01/2003	$32.100
	12/01/2003	$32.750						
ASBESTOS REMOVER - PIPE / MECH. EQUIPT.	02/03/1992	$21.800						
ASPHALT RAKER	12/01/2001	$28.600	06/01/2002	$29.150	12/01/2002	$29.700	06/01/2003	$30.350
	12/01/2003	$31.000						
ASPHALT/CONCRETE/CRUSHER PLANT-ON SITE	12/01/2001	$41.160	06/01/2002	$42.140	12/01/2002	$43.120		
BACKHOE/FRONT-END LOADER	12/01/2001	$41.160	06/01/2002	$42.140	12/01/2002	$43.120		
BARCO-TYPE JUMPING TAMPER	12/01/2001	$28.600	06/01/2002	$29.150	12/01/2002	$29.700	06/01/2003	$30.350
	12/01/2003	$31.000						
BLOCK PAVERS, RAMMERS & CURB SETTERS	12/01/2001	$29.100	06/01/2002	$29.650	12/01/2002	$30.200	06/01/2003	$30.850
	12/01/2003	$31.500						
BOILERMAKER	10/01/1999	$37.350						
BRICKLAYER/WATERPROOFER	03/01/2002	$44.240						
BULLDOZER/GRADER/SCRAPER	12/01/2001	$40.960	06/01/2002	$41.930	12/01/2002	$42.910		
CAISSON & UNDERPINNING BOTTOM MAN	12/01/2001	$32.100	06/01/2002	$32.700	12/01/2002	$33.350	06/01/2003	$34.200
	12/01/2003	$35.050						
CAISSON & UNDERPINNING LABORER	12/01/2001	$31.150	06/01/2002	$31.750	12/01/2002	$32.400	06/01/2003	$33.250
	12/01/2003	$34.100						
CAISSON & UNDERPINNING TOP MAN	12/01/2001	$31.150	06/01/2002	$31.750	12/01/2002	$32.400	06/01/2003	$33.250
	12/01/2003	$34.100						
CARBIDE CORE DRILL OPER.	12/01/2001	$28.600	06/01/2002	$29.150	12/01/2002	$29.700	06/01/2003	$30.350
	12/01/2003	$31.000						
CARPENTER	10/01/2001	$34.770	04/01/2002	$36.270	10/01/2002	$37.770	04/01/2003	$39.270
	10/01/2003	$40.770	04/01/2004	$42.270	10/01/2004	$43.770	04/01/2005	$45.270
CEMENT MASON/FINISHER	09/01/2001	$43.950						
CHAIN SAW OPER.	12/01/2001	$28.600	06/01/2002	$29.150	12/01/2002	$29.700	06/01/2003	$30.350
	12/01/2003	$31.000						
CLAM SHELLS/SLURRY BUCKETS/HEADING MACHINES	12/01/2001	$42.160	06/01/2002	$43.140	12/01/2002	$44.120		
COMPRESSOR OPERATOR/WELDER	12/01/2001	$34.630	06/01/2002	$35.390	12/01/2002	$36.160		
DELEADER (BRIDGE)	01/01/2002	$41.980						
DELEADER (EXCLUDE BRIDGE)	01/01/2002	$25.420						
DIVER	08/01/2001	$49.520						
DIVER TENDER	08/01/2001	$39.090	08/01/2002	$40.890	08/01/2003	$42.890		
DIVER TENDER (EFFLUENT)	08/01/2001	$52.130						
DRIVER/SLURRY (EFFLUENT)	08/01/2001	$67.780						
ELECTRICIAN	03/01/2002	$47.480	09/01/2002	$48.720	03/01/2003	$49.960		

This wage schedule shall be posted at the work site.

Failure of the employer to pay the minimum hourly wage rate on public works projects is a violation of M.G.L. c149. Employees not receiving such rates should report the violation to the Office of Fair Labor and Business Practices, 200 Portland St., Boston, MA 02114; Tel: (617) 727-3465.

Revised: 03/07/2002 **Rate Sheet:** HAVERHILL

DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT

DIVISION OF OCCUPATIONAL SAFETY

Minimum Wage Rates

JANE SWIFT
Governor

As determined by the Deputy Director under the provisions of the Massachusetts General Laws, Chapter 149, Section 26 to 27H

ANGELO BUONOPANE
Director
ROBERT J. PREZIOSO
Deputy Director

Awarding Authority: CITY OF HAVERHILL

Contract Number: **City/Town:** HAVERHILL

Description Of Work: ISOLATED REPAIR NOT ASSOC. W/LGR. PROJECT (6 MOS)

Job Location: VALID FROM 3/7/02 THRU 9/07/02

Classification	Effective Dates and Total Rates							
ELEVATOR CONSTRUCTOR	04/16/2001	$42.780						
ELEVATOR CONSTRUCTOR HELPER	04/16/2001	$32.060						
FENCE & GUARD RAIL ERECTOR	12/01/2001	$28.600	06/01/2002	$29.150	12/01/2002	$29.700	06/01/2003	$30.350
	12/01/2003	$31.000						
FIELD ENG. - INST. PERSON (BLDG, SITE, HVY CONST)	11/01/2001	$39.050	05/01/2002	$39.900	11/01/2002	$40.840	05/01/2003	$41.780
FIELD ENG. - ROD PERSON (BLDG, SITE, HVY CONST)	11/01/2001	$30.060	05/01/2002	$30.630	11/01/2002	$31.280	05/01/2003	$31.920
FIELD ENG.-CHIEF OF PARTY (BLDG, SITE, HVY CONST)	11/01/2001	$40.080	05/01/2002	$40.960	11/01/2002	$41.940	05/01/2003	$42.920
FIRE ALARM INSTALLER	03/01/2002	$47.480	09/01/2002	$48.720	03/01/2003	$49.960		
FIRE ALARM REPAIR / MAINTENANCE	03/01/2002	$36.630	09/01/2002	$37.620				
FIREMAN (ASST. ENGINEER)	12/01/2001	$37.610	06/01/2002	$38.470	12/01/2002	$39.340		
FLAGGER & SIGNALER	06/01/2000	$21.650						
FLOORCOVERER	04/01/2001	$35.430						
FORK LIFT/CHERRY PICKER	12/01/2001	$41.160	06/01/2002	$42.140	12/01/2002	$43.120		
FOUR & FIVE AXLE EQUIPMENT DRIVER	12/01/2001	$31.700	06/01/2002	$32.200	12/01/2002	$32.850	06/01/2003	$33.350
	12/01/2003	$34.000						
GENERATOR/LIGHTING PLANT/HEATERS	12/01/2001	$34.630	06/01/2002	$35.390	12/01/2002	$36.160		
GLAZIER	01/01/2002	$34.480						
HAZARDOUS WASTE LABORERS	12/01/2001	$30.350	06/01/2002	$30.900	12/01/2002	$31.450	06/01/2003	$32.100
	12/01/2003	$32.750						
HOISTING ENGINEER/CRANES/GRADALLS	12/01/2001	$41.160	06/01/2002	$42.140	12/01/2002	$43.120		
HVAC (DUCTWORK)	02/01/2002	$46.240						
HVAC (ELECTRICAL CONTROLS)	03/01/2002	$47.480	09/01/2002	$48.720	03/01/2003	$49.960		
HVAC (PIPE)	03/01/2002	$40.170						
HVAC (TESTING AND BALANCING - AIR)	02/01/2002	$46.240						
HVAC (TESTING AND BALANCING -WATER)	03/01/2002	$40.170						
HYDRAULIC DRILLS	12/01/2001	$29.100	06/01/2002	$29.650	12/01/2002	$30.200	06/01/2003	$30.850
	12/01/2003	$31.500						
INSULATOR (PIPES & TANKS)	09/01/2001	$41.160						
IRONWORKER	09/16/2001	$36.440	03/16/2002	$37.690				
JACKHAMMER & PAVING BREAKER OPER.	12/01/2001	$28.600	06/01/2002	$29.150	12/01/2002	$29.700	06/01/2003	$30.350
	12/01/2003	$31.000						
LABORER	12/01/2001	$28.350	06/01/2002	$28.900	12/01/2002	$29.450	06/01/2003	$30.100
	12/01/2003	$30.750						
LABORER: CARPENTER TENDER	12/01/2001	$28.350	06/01/2002	$28.900	12/01/2002	$29.450	06/01/2003	$30.100
	12/01/2003	$30.750						
LABORER: CEMENT FINISHER TENDER	12/01/2001	$28.350	06/01/2002	$28.900	12/01/2002	$29.450	06/01/2003	$30.100
	12/01/2003	$30.750						

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Revised: 03/07/2002 **Rate Sheet:** HAVERHILL

JANE SWIFT
Governor

DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
DIVISION OF OCCUPATIONAL SAFETY

Minimum Wage Rates

As determined by the Deputy Director under the provisions of the Massachusetts General Laws, Chapter 149, Section 26 to 27H

ANGELO BUONOPANE
Director
ROBERT J. PREZIOSO
Deputy Director

Awarding Authority: CITY OF HAVERHILL
Contract Number: **City/Town:** HAVERHILL
Description Of Work: ISOLATED REPAIR NOT ASSOC. W/LGR. PROJECT (6 MOS)
Job Location: VALID FROM 3/7/02 THRU 9/07/02

Classification	Effective Dates and Total Rates							
LABORER: MASON TENDER	12/01/2001	$28.600	06/01/2002	$29.150	12/01/2002	$29.700	06/01/2003	$30.350
	12/01/2003	$31.000						
LABORER: MULTI-TRADE TENDER	12/01/2001	$28.350	06/01/2002	$28.900	12/01/2002	$29.450	06/01/2003	$30.100
	12/01/2003	$30.750						
LABORER: TREE REMOVER	12/01/2001	$28.350	06/01/2002	$28.900	12/01/2002	$29.450	06/01/2003	$30.100
	12/01/2003	$30.750						
LASER BEAM OPERATOR	12/01/2001	$28.600	06/01/2002	$29.150	12/01/2002	$29.700	06/01/2003	$30.350
	12/01/2003	$31.000						
MARBLE & TILE FINISHERS	03/01/2002	$37.430	07/01/2002	$37.930				
MARBLE MASONS,TILELAYERS & TERRAZZO MECH	03/01/2002	$43.650	07/01/2002	$44.280				
MECH. SWEEPER OPER.(NON-CONSTRUCTION)	07/01/2001	$21.520						
MECH. SWEEPER OPERATOR (ON CONST. SITES)	12/01/2001	$40.960	06/01/2002	$41.930	12/01/2002	$42.910		
MECHANICS MAINTENANCE	12/01/2001	$40.960	06/01/2002	$41.930	12/01/2002	$42.910		
MILLWRIGHT	04/01/1999	$35.430						
MORTAR MIXER	12/01/2001	$28.600	06/01/2002	$29.150	12/01/2002	$29.700	06/01/2003	$30.350
	12/01/2003	$31.000						
OILER(OTHER THAN TRUCKS,CRANES,GRADALLS)	12/01/2001	$30.850	06/01/2002	$31.490	12/01/2002	$32.140		
OPER 3 AXLE EQUIP	12/01/1992	$24.500						
OTHER POWER DRIVEN EQUIPMENT - CLASS II	12/01/2001	$40.960	06/01/2002	$41.930	12/01/2002	$42.910		
PAINTER (BRIDGE)	01/01/2002	$41.980						
PAINTER (SPRAY OR SANDBLAST, NEW) *	01/01/2002	$35.480						
PAINTER (SPRAY OR SANDBLAST, REPAINT)	01/01/2002	$33.540						
PAINTER (TRAFFIC MARKINGS)	12/01/2001	$25.550	06/01/2002	$26.050	12/01/2002	$26.550	06/01/2003	$27.100
	12/01/2003	$27.650						
PAINTER /TAPER (BRUSH, NEW) *	01/01/2002	$34.480						
PAINTER /TAPER (BRUSH, REPAINT)	01/01/2002	$32.540						
PANEL & PICKUP TRUCKS DRIVER	12/01/2001	$31.340	06/01/2002	$31.840	12/01/2002	$32.490	06/01/2003	$32.990
	12/01/2003	$33.640						
PIER AND DOCK CONSTRUCTOR (UNDERPINNING AND DECK)	08/01/2001	$39.090	08/01/2002	$40.890	08/01/2003	$42.890		
PILE DRIVER	08/01/2001	$39.090	08/01/2002	$40.890	08/01/2003	$42.890		
PIPELAYERS	12/01/2001	$28.600	06/01/2002	$29.150	12/01/2002	$29.700	06/01/2003	$30.350
	12/01/2003	$31.000						
PLASTERER	09/01/2001	$43.950						
PLUMBER & PIPEFITTER	03/01/2002	$40.170						
PNEUMATIC CONTROLS (TEMP.)	03/01/2002	$40.170						
PNEUMATIC DRILL OR TOOL OPERATOR	12/01/2001	$28.600	06/01/2002	$29.150	12/01/2002	$29.700	06/01/2003	$30.350
	12/01/2003	$31.000						

This wage schedule shall be posted at the work site.

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DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT

DIVISION OF OCCUPATIONAL SAFETY

JANE SWIFT
Governor

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Minimum Wage Rates

As determined by the Deputy Director under the provisions of the Massachusetts General Laws, Chapter 149, Section 26 to 27H

Awarding Authority: CITY OF HAVERHILL

Contract Number: **City/Town:** HAVERHILL

Description Of Work: ISOLATED REPAIR NOT ASSOC. W/LGR. PROJECT (6 MOS)

Job Location: VALID FROM 3/7/02 THRU 9/07/02

Classification	Effective Dates and Total Rates							
POWDERMEN & BLASTERS	12/01/2001	$29.350	06/01/2002	$29.900	12/01/2002	$30.450	06/01/2003	$31.100
	12/01/2003	$31.750						
POWER SHOVEL/DERRICK/TRENCHING MACHINE	12/01/2001	$41.160	06/01/2002	$42.140	12/01/2002	$43.120		
PUMP OPERATOR (CONCRETE)	12/01/2001	$41.160	06/01/2002	$42.140	12/01/2002	$43.120		
PUMP OPERATOR (DEWATERING, OTHER)	12/01/2001	$34.630	06/01/2002	$35.390	12/01/2002	$36.160		
READY-MIX CONCRETE DRIVER	11/01/1997	$25.370						
RECLAIMERS	12/01/2001	$40.960	06/01/2002	$41.930	12/01/2002	$42.910		
RESIDENTIAL WOOD FRAME CARPENTER **	10/01/2000	$23.470						
RIDE-ON MOTORIZED BUGGY OPER.	12/01/2001	$28.600	06/01/2002	$29.150	12/01/2002	$29.700	06/01/2003	$30.350
	12/01/2003	$31.000						
ROLLER/SPREADER/MULCHING MACHINE	12/01/2001	$40.960	06/01/2002	$41.930	12/01/2002	$42.910		
ROOFER / WATERPROOFER / DAMPROOFER	02/01/2002	$36.110						
SHEETMETAL WORKER	02/01/2002	$46.240						
SLATE / TILE / PRECAST CONCRETE ROOFER	02/01/2002	$36.110						
SPECIALIZED EARTH MOVING EQUIP < 35 TONS	12/01/2001	$31.800	06/01/2002	$32.300	12/01/2002	$32.950	06/01/2003	$33.450
	12/01/2003	$34.100						
SPECIALIZED EARTH MOVING EQUIP > 35 TONS	12/01/2001	$32.090	06/01/2002	$32.590	12/01/2002	$33.240	06/01/2003	$33.740
	12/01/2003	$34.390						
SPRINKLER FITTER	01/01/2002	$45.650						
TAMPERS, SELF-PROPELLED OR TRACTOR DRAWN	12/01/2001	$40.960	06/01/2002	$41.930	12/01/2002	$42.910		
TELECOMMUNICATION TECHNICIAN	03/01/2002	$36.630	09/01/2002	$37.620				
TERRAZZO FINISHERS	03/01/2002	$42.550	07/01/2002	$43.180				
TEST BORING DRILLER	12/01/2001	$32.550	06/01/2002	$33.150	12/01/2002	$33.800	06/01/2003	$34.650
	12/01/2003	$35.500						
TEST BORING DRILLER HELPER	12/01/2001	$31.270	06/01/2002	$31.870	12/01/2002	$32.520	06/01/2003	$33.370
	12/01/2003	$34.220						
TEST BORING LABORER	12/01/2001	$31.150	06/01/2002	$31.750	12/01/2002	$32.400	06/01/2003	$33.250
	12/01/2003	$34.100						
THREE-AXLE EQUIPMENT DRIVER	12/01/2001	$31.580	06/01/2002	$32.080	12/01/2002	$32.730	06/01/2003	$33.230
	12/01/2003	$33.880						
TRACTORS/PORTABLE STEAM GENERATORS	12/01/2001	$40.960	06/01/2002	$41.930	12/01/2002	$42.910		
TRAILERS FOR EARTH MOVING EQUIPMENT	12/01/2001	$32.430	06/01/2002	$32.880	12/01/2002	$33.530	06/01/2003	$34.030
	12/01/2003	$34.680						
TREE TRIMMER	02/02/2002	$15.140	02/02/2003	$15.540				
TREE TRIMMER GROUNDMAN	02/02/2002	$13.580	02/02/2003	$13.930				
TUNNEL WORK (COMP. AIR HAZ. WASTE)	12/01/2001	$42.680	06/01/2002	$43.180	12/01/2002	$43.680	06/01/2003	$45.180
	12/01/2003	$46.680						
TUNNEL WORK (COMPRESSED AIR)	12/01/2001	$40.680	06/01/2002	$41.180	12/01/2002	$41.680	06/01/2003	$43.180
	12/01/2003	$44.680						

This wage schedule shall be posted at the work site.

Failure of the employer to pay the minimum hourly wage rate on public works projects is a violation of M.G.L. c149. Employees not receiving such rates should report the violation to the Office of Fair Labor and Business Practices, 200 Portland St., Boston, MA 02114; Tel: (617) 727-3465.

Revised: 03/07/2002 **Rate Sheet:** HAVERHILL

JANE SWIFT
Governor

DEPARTMENT OF LABOR AND WORKFORCE DEVELOPMENT
DIVISION OF OCCUPATIONAL SAFETY

Minimum Wage Rates

As determined by the Deputy Director under the provisions of the Massachusetts General Laws, Chapter 149, Section 26 to 27H

ANGELO BUONOPANE
Director
ROBERT J. PREZIOSO
Deputy Director

Awarding Authority: CITY OF HAVERHILL
Contract Number: **City/Town:** HAVERHILL
Description Of Work: ISOLATED REPAIR NOT ASSOC. W/LGR. PROJECT (6 MOS)
Job Location: VALID FROM 3/7/02 THRU 9/07/02

Classification	Effective Dates and Total Rates							
TUNNEL WORK (FREE AIR HAZ. WASTE)	12/01/1999	$32.850						
TUNNEL WORK (FREE AIR)	12/01/1999	$30.850						
TWO-AXLE EQUIPMENT DRIVER	12/01/2001	$31.510	06/01/2002	$32.010	12/01/2002	$32.660	06/01/2003	$33.160
	12/01/2003	$33.810						
VAC-HAUL	12/01/2001	$31.800	06/01/2002	$32.300	12/01/2002	$32.950	06/01/2003	$33.450
	12/01/2003	$34.100						
WAGON DRILL OPERATOR	12/01/2001	$28.600	06/01/2002	$29.150	12/01/2002	$29.700	06/01/2003	$30.350
	12/01/2003	$31.000						
WASTE WATER PUMP OPERATOR	12/01/2001	$41.160	06/01/2002	$42.140	12/01/2002	$43.120		

* If 30% or more of surfaces to be painted are new construction, NEW paint rate shall be used.
** The Residential Wood Frame Carpenter classification applies only to the construction of new, wood frame residences that do not exceed four stories

This wage schedule shall be posted at the work site.

Failure of the employer to pay the minimum hourly wage rate on public works projects is a violation of M.G.L. c149. Employees not receiving such rates should report the violation to the Office of Fair Labor and Business Practices, 200 Portland St. , Boston, MA 02114; Tel: (617) 727-3465.

Revised: 03/07/2002 **Rate Sheet:** HAVERHILL

COMMONWEALTH OF MASSACHUSETTS

Division of Occupational Safety

Minimum wage rates for apprentices employed on public works projects are listed below as a percentage of the pre-determined hourly wage rate established by the Deputy Director under the provisions of the Massachusetts General Laws, Chapter 149, Sections 26 through 27D, as ammended

All apprentices must be registered with the Division of Apprentice Training in accordance with M.G.L. Chapter 23, Sections 11E-11L

Location: HAVERHILL

All steps are 6 months (1000 Hours) unless otherwise specified**

Classification	Ratio*	1	2	3	4	5	6	7	8	9	10
ASB./INSULATOR	01:04	50	60	70	80						
			Steps are 1 year								
BOILERMAKER	01:05	60	65	70	75	80	85	90	95		
BRICK/PLASTER	01:05	40	50	60	70	80	90	95			
			Steps 1, 2 are 500 hrs; rest are 1000 hrs.								
CARPENTER	01:05	50	60	70	75	80	80	90	90		
CEMENT MASON	01:03	50	55	65	70	75	85				
ELECTRICIAN	2:3***	30	35	40	45	50	55	65	70	75	80
FLOORCOVERER	1:3	40	45	50	55	60	65	70	75		
			Steps are 950 hours								
GLAZIER	1:1	40	45	50	55	60	65	70	80		
			Each step is 750 hrs.								
HOIST/PORT. ENG.	01:06	55	60	65	70	75	80	85	90		
IRONWORKER	1:4	50	60	65	70	85	90				
LABORER	1:5	60	70	80	90						
LINEMAN	1:2	60	65	70	75	80	85	90			
MILLWRIGHT	01:05	45	50	55	60	65	70	75	80		
PAINTER	1:1	40	45	50	55	60	65	70	80		
			Steps are 750 hrs.								
PILE DRIVER	01:03	50	55	60	65	70	75	80	85		
PLUMB/PIPEFITTR	01:04	37.5	40	45	50	55	60	65	70	75	80

* Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof.

** Multiple ratios are listed in comment field.

*** The job site ratio of 2 apprentices for every 3 journeymen is allowed as follows: 1 journeyman may supervise not more than 1 apprentice; 2 to 3 journeymen may supervise not more than 2 apprentices; 4 to 6 journeymen may supervise not more than 4 apprentices; 7 to 9 journeymen may supervise not more than 6 apprentices; 10 to 12 journeymen may supervise not more than 8 apprentices; 13 to 15 journeymen may supervise not more than 10 apprentices; etc. Not more than 50% of the apprentices on a job site may have standing as a 1st year apprentice. All other apprentices must have 2nd, 3rd, 4th, or 5th year standing.

Revised 03/07/2002

COMMONWEALTH OF MASSACHUSETTS

Division of Occupational Safety

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Location: HAVERHILL

All steps are 6 months (1000 Hours) unless otherwise specified**

ROOFER	01:05	50	60	65	75	85					
1:5, 2:6, 1:10 thereafter											
SHEET METAL WKR	01:04	40	45	50	65	85					
			Step 1 probation								
SPRINKLR FITTR	01:05	40	45	50	55	60	65	70	75	80	85
TELECOMMUNICATION TECH	1:1	40	45	50	55	60	65	75	80		

* Ratios are expressed in allowable number of apprentices to journeymen or fraction thereof.

** Multiple ratios are listed in comment field.

*** The job site ratio of 2 apprentices for every 3 journeymen is allowed as follows: 1 journeyman may supervise not more than 1 apprentice; 2 to 3 journeymen may supervise not more than 2 apprentices; 4 to 6 journeyman may supervise not more than 4 apprentices; 7 to 9 journeymen may supervise not more than 6 apprentices; 10 to 12 journeymen may supervise not more than 8 apprentices; 13 to 15 journeymen may supervise not more than 10 apprentices; etc. Not more than 50% of the apprentices on a job site may have standing as a 1st year apprentice. All other apprentices must have 2nd, 3rd, 4th, or 5th year standing.

Revised 03/07/2002

WEEKLY PAYROLL REPORT FORM

Company Name: _____

Project Name: _____

Awarding Auth.: _____

Work Week Ending: _____

☐ Final Report

☐ Prime Contractor

☐ Subcontractor
List Prime Contractor: _____

Employer Signature: _____

Print Name & Title: _____

Employee Name & Address	Work Classification	Hours Worked							(A) Tot. Hrs.	(B) Hourly Base Wage	Employer Contributions			(F) [B+C+D+E] Hourly Total Wage (prev. wage)	(G) [A*F] Weekly Total Amount
		S	M	T	W	T	F	S			(C) Health & Welfare	(D) Pension	(E) Supp. Unemp.		

NOTE: Every contractor and subcontractor is required to submit a copy of their weekly payroll records to the awarding authority.

WEEKLY PAYROLL RECORDS REPORT
& STATEMENT OF COMPLIANCE

In accordance with Massachusetts General Law c149, §27B, a true and accurate record must be kept of all persons employed on the public works project for which the enclosed rates have been provided. A Payroll Form has been printed on the reverse of this page and includes all the information required to be kept by law. Every contractor or subcontractor is required to keep these records and preserve them for a period of three years from the date of completion of the contract.

In addition, every contractor and subcontractor is required to submit a copy of their weekly payroll records to the awarding authority. This is required to be done on a weekly basis. Once collected, the awarding authority is also required to preserve those records for three years.

In addition, each such contractor, subcontractor or public body shall furnish to the Department of Labor & Workforce Development/Division of Occupational Safety within fifteen days after completion of its portion of the work a statement, executed by the contractor, subcontractor or public body who supervises the payment of wages, in the following form:

STATEMENT OF COMPLIANCE

_____, 200_____

I,_____,_____
(Name of signatory party) (Title)

do hereby state:

That I pay or supervise the payment of the persons employed by

_____ on the _____
(Contractor, subcontractor or public body) (Building or project)

and that all mechanics and apprentices, teamsters, chauffeurs and laborers employed on said project have been paid in accordance with wages determined under the provisions of sections twenty-six and twenty-seven of chapter one hundred and forty nine of the General Laws.

Signature _____

Title _____

DIVISION OF OCCUPATIONAL SAFETY, 399 WASHINGTON STREEET, 5TH FL., BOSTON, MA. 02108

SPECIFICATIONS

SECTION 02082

ASBESTOS ABATEMENT

Bids for work under this section shall be for the complete work and shall be filed by fax with the Haverhill Purchasing Department at (978) 521-4348 not later than 2:00 p.m., Tuesday, May 21, 2002.

Bids shall be submitted in accordance with the requirements set forth in the "Form for General Bid" and the "City of Haverhill Certificates" in the "Minimum Wage Determination" which is part of these specifications.

PART 1 - GENERAL

GENERAL CONDITIONS

The following is provided as a general description of the location of the asbestos floor tiles and mastic to be removed. If the contractor needs more information or to view the project prior to bid, it is his responsibility to determine and verify exact quantities and conditions for the purpose of bid and costing. The Contractor may contact the Principal of the Haverhill High School, Mr. Kevin Soraghan at 978-374-5700.

"C" Wing, 1st Floor (two (2) adjoining rooms at the Haverhill High School, 137 Monument Street, Haverhill, MA.

Remove approximately 1550 sq. ft. of Asbestos Containing Floor Tile and Mastic.

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PART 1 - PROJECT

1.01 SUMMARY OF WORK

A. The Contractor shall provide service, labor, materials, equipment, insurance and supervision for the proper removal of asbestos containing floor tiles & mastic and decontamination in two classrooms on "C" Wing on the 1st floor of the high school.

1. All work shall be performed in accordance with all OSHA, EPA, DEP, NESHAP, NIOSH, DLWD and any local regulations governing the removal of asbestos containing materials.

2. Final aggressive clearance sampling will be performed using the AHERA NIOSH 7402 Method (transmission electron microscopy protocol (Z Test)) and the NIOSH 7400 Method when applicable.

3. The Contractor is responsible for protection of any non-ACM materials and coverings within a work area from contamination unless designated otherwise for removal and disposal.

4. The two classrooms shall be joined and tested as one area, isolated and separate from the remainder of the school.

5. The work area shall be considered as a major abatement area with ridge barriers and two layers of polyethylene sheeting on all surfaces, negative air pressure and proper de-contamination facilities.

6. It is the contractor's responsibility to fully clean all surfaces in each and every work area and then apply an encapsulant as a "lock down" agent to all abated surfaces.

B. It is necessary that this work be performed during the school year while classes are still in sessions, therefore, work shall be performed in close coordination with the Town Representative and the School Department.

It is to be noted that the start of this work is to occur prior to the school summer vacation and the abatement work shall be continuous until all work is satisfactorily completed and the work area is clean and acceptable to the School Department.

C. All Asbestos Abatement work must be notified to Regulatory Agencies and scheduled well in advance of the start up date. Delays by the Asbestos Abatement Contractor will have significant impact on the school schedule.

1.02 SUMMARY OF TASKS

A. This section covers the furnishing of all labor, materials, facilities, equipment services, employee training and testing, permits and agreements necessary to perform the work required for asbestos removal in accordance with these specifications, EPA, OSHA, and any other applicable federal, state and local government regulations. Whenever there is a conflict or overlap of the above references the most stringent provisions are applicable.

B. Description of Work:
Perform the work and provide the services as follows:

1. Pre-abatement inspection.
2. Work area preparation.
3. Trained workers with respiratory protection and medical examination.
4. Packing material, packaging, labeling, transporting and disposal of contaminated material, including waste shipment record.
5. Decontamination of work area for final inspection and testing.
6. Provide access, support and protection to all authorized visitors and inspectors.

1.03 AUTHORITY TO STOP WORK

A. The Owner and/or Owner Retained Industrial Hygienist (I.H.) has the authority to stop the abatement work whenever the work conditions are considered a Safety Hazard or at any time the I.H. determines either personally or through the Owner's Representative that conditions are not within the specifications and applicable regulations. The stoppage of work shall continue until conditions have been corrected and steps have been taken to the satisfaction of the Owner. Standby time required to resolve violations shall be at the Asbestos Contractor's expense.

1.04 NOTIFICATIONS, PERMITS, WARNING SIGNS, LABELS AND POSTERS

A. Secure all the permits required for the work, including disposal of asbestos in an approved landfill prior to the start of work.

B. Notification:

1. Provide written notification to the EPA at least 10 days in advance of the work start date.

2. Provide Massachusetts DEP and Department of Labor &

Workforce Development written notification at least 10 days in advance to the start of work.

C. Warning Signs: Post the required signage around the workplace and at every point of potential entry from outside, showing the standard wording from OSHA 1926.58. Warning signs shall be bright color so they will be easily noticeable. The size of the sign and the size of the lettering shall be no less than the OSHA 1926.58 and 1910.145 requirements.

D. Labels: Provide the required OSHA, EPA and DOT labels for all plastic bags and all drums utilized to transport contaminated material to the landfill.

E. At the job site provide any other signs, labels, warnings and posted instructions that are necessary to protect, inform and warn people of the hazard from asbestos exposure. Signs shall be in the appropriate languages in response to the ethnic background of the local population. Post in a prominent and convenient place for the worker a copy of the latest applicable regulations from OSHA and EPA, and State regulations including OSHA 29 CFR 1926.1101, 1910.1001 and 40 CFR l, Subpart M.

1.05 CONTRACTOR QUALIFICATIONS

A. Certification: The Contractor presently and regularly performs asbestos abatement as a principal service.

1.06 PERSONNEL QUALIFICATIONS

A. Superintendents, Foreman and Workers

1. Training and knowledge of applicable regulations and expertise in safety and environmental protection as evidenced by a certificate of participation and successful completion of training courses offered by the EPA or an EPA approved educational institution proficient with this technology.

A. Furnish certificates for each training course for each person, including required annual refresher training.

2. Provide evidence of required licensing through Massachusetts regulatory agency.

3. Written medical approval to work while wearing a respirator in accordance with OSHA 1910.134; also proof of participation in medical surveillance per 29 CFR 1926.1101.

1. 07 SUBMITTALS

A. In accordance with Section 02082 the awarded Contractor shall furnish the following:

1. Project design: "Abatement Plan", including drawings of the decontamination facility and their locations, work area isolation plan with layout of engineering controls (e.g., HEPA ventilation vents, etc.) and load out facility.

   A. Specific approach in scheduling the removal of asbestos-containing materials from each abatement area in the building.

2. Security System, warning signs and labels for bags and drums.

3. Copy of notification to police and fire department, and copy of certificates from both the departments on their approval of the proposed security and safety plans.

4. All notifications to Federal, State and local governments.

5. Wetting agents and low pressure wetting system.

6. Material Safety Data Sheets (MSDS) for all encapsulants, mastic solvents, spray adhesives, spray poly which are to be used on the project.

7. Wall, floor and opening coverings and sealing tapes.

8. Standard Operating Procedure showing how workmen, visitors and employees will be protected from exposure and how spaces outside the work areas will be protected from

contamination until completion of the work; also SOP for respiratory protection program.

9. Routing plan for movement of equipment into and removal of waste from the building.

10. Fire and emergency evacuation plans.

11. Detailed plans for decontamination facilities, and system allowing inter room communications between the work area and the outside.

12. Engineering system for exposure controls showing the number, location and capacity of supply and exhaust

13. System, the expected direction of flow and the maximum and minimum negative pressure in each room.

14. Proof of existence of record that the contractor is complying with the OSHA's medical surveillance requirements.

15. Name of proposed landfill for disposal of waste materials and approved waste hauling firm.

1.08 SUBMITTALS DURING THE WORK

A. Submit copies of the following items to the Owner Retained IH/IH Firm

1. Security and safety logs showing names of persons entering the work space, date and time of entry and exit, records of any accidents, emergency evacuation and any other safety and/or health accidents. This information shall be available on a daily basis and copies shall be submitted to the IH Firm at the end of each workweek.

2. Disposal certificates.

3. Required permits, clearances, licenses, etc. shall be on site throughout the project.

1.09 RESPIRATORY SYSTEMS

A. Availability: Provide all workers, foreman, superintendents, authorized

visitors and inspectors personally issued and marked respiratory equipment approved by NIOSH and MSHA.

1.10 PERSONAL PROTECTIVE EQUIPMENT (PPE)

A. Provide to all workers, foreman, superintendents and authorized visitors and inspectors disposable clothing consisting of full-bodied coveralls, head covers, gloves and or reusable footwear.

B. Provide eye protection and hard hats as required by job conditions and safety regulations.

1.11 ENCLOSURES AND SHOWERS

A. For each abatement area provide decontamination facilities located in an area agreed upon with the Owner's Representative and Retained I.H. The decontamination facility shall include a decontamination facility for workers and visitors and an waste load out decontamination facility for loading of asbestos into trucks for transportation to the landfill and the decontamination of equipment.

B. The facility for workers and visitors shall consist of three rooms that serve as three air locks as follows: Clean room at entrance followed by Shower room followed by Equipment room leading into the work area.

CLEAN ROOM **SHOWER** **EQUIPMENT ROOM**

C. Bagged material shall be packed and sealed in plastic lined drums or double bagged. Double bagging shall occur in the central compartment of a bag transfer air lock. Drum and bag exteriors shall be wet cleaned prior to removal from the wash section. Water is to be added to each bag of waste prior to sealing to keep contents damp. Bags shall be 6-mil polyethylene.

1.13 PERSONNEL PROTECTION AND DECONTAMINATION

A. Provide all personnel throughout the abatement process with the specified protective equipment and clothing. Ensure that all personnel entering and leaving the workspace follow the following procedures:

1. Entering from the outside: Change from street clothes into protective clothing and respiratory protection and wear clean protective gear. Go through shower room into dirty equipment room, pick up equipment and tools and enter the work area.

2. Exiting from the work area: Dispose of all protective clothing into labeled plastic bags for asbestos waste. Do not take off the respirator but still wearing the respirator enter the shower and shower thoroughly. Remove

   respirator to wash and to decontaminate the respirator. After drying, enter the clean room, store the decontaminated respirator in the assigned space and dress into street clothing.

3. On Site Posting: Written procedures in workplace and train all personnel on the procedures for evacuation and emergency situations as described in the contractor's SOP.

4. Instruction: Direct all employees and workers in the proper care of their personally issued respiratory equipment, including daily maintenance and sanitizing procedures, etc., as described in the contractor's written Respiratory Protection Program.

5. Inspection: All respiratory equipment shall be examined by contractor's project supervisory personnel at the beginning of each work period, including breaks and lunch breaks.

6. Compulsory: Workers are to wear their respirators provided to them at all times while within the work area.

   A. Supervisors are to inform workers to the potential for exposure to airborne asbestos fibers.

   B. Workers are responsible for insuring that their respirators fit properly and that it is not worn loosely.

   C. The contractor is to warn workers that failure to wear the respirator or to wear it improperly may result in dismissal.

1.14 DISPOSAL ACTIVITIES

A. It is the responsibility of the contractor to determine current waste handling, transportation and disposal regulations for the work site and for each appropriate waste disposal landfill. The contractor must comply fully with these regulations and all U.S. Department of Transportation (DOT), EPA, NESHAPS State and local requirements.

B. The contractor will document actual disposal of waste at the designated

landfill by obtaining a disposal Waste Shipment Record and providing the original to the Owner.

3. It is the responsibility of the contractor that waste not accumulate in the removal site. Waste bags and drums are to be transferred to a closed vehicle or dumpster used to transfer material to an approved landfill.

   The vehicle or dumpster is to be locked when unattended and posted with the appropriate signage.

1.15 EXPOSURE CONTROLS

A. Provide supply air to and exhaust air from the work area to maintain a negative pressure of 0.02 inch of water. If negative air pressure of 0.02 inches is lost, work shall be halted until negative air pressure is restored. The ventilation system shall operate on a twenty four-hour basis throughout the abatement process through final clearance air sampling. The ventilation system shall be in accordance with EPA recommendations included in Appendix J of the Guidance for Controlling Asbestos-Containing Materials in Buildings.

   1. Number and Capacity of HEPA's: Compute the total cubic feet of all work space within the work area and determine and document the air moving capacity of all the filter units to be used in the workspace. This measurement shall be made in cubic feet per minute (cfm) under a filter load equivalent to two inches of static pressure.

   2. Negative air system shall be equipped with the following:

      a. Magnahelic gauge to monitor the units air pressure difference across the filters and to be able to interpret magnahelic readings to cfm. NOTE: The magnahelic gauge on an air filtration device is used to indicate when filters have become loaded and need to be changed. It does not indicate negative pressure within the removal area.

      b. Automatic shut off for filter failure or filter absence.

      c. Audible alarm with or without flashing red light for unit shutdown.

      d. Amber flashing warning light for filter loading.

      e. Must have safety system that prevents units from being

operated with the filter in backwards.

3. Each negative air unit shall be on the exterior of the work area whenever possible. The duct shall be exhausted to the outside of the building. If it is not possible to exhaust daily, the duct must be placed in a locked, sealed and unoccupied space. Indoor exhaust air must be sampled daily.

4. Enough air filtration devices shall be used to provide a minimum of 4 air changes per hour. Provide a minimum of two standby units in the event of a machine failure or other emergency.

5. Demonstrate to the I.H. the pressure differential in each individual work area by means of a portable manometer with a continuous strip chart recorder prior to the disturbance of any ACM. The strip chart record shall be made part of the project log. Each strip shall be dated, identified by work area and initialed by the supervisor.

PART 2 - EXECUTION

2.01 PRE-ASBESTOS ABATEMENT PREPARATIONS

A. Prior to any abatement work in the area:

1. Seal off the entire area to any one other than trained personnel and authorized visitors.

2. Erect signs around the area in accordance with EPA, OSHA and this specification. Unauthorized entry during abatement process shall be provided by twenty four-hour security. Maintain a log of all people entering and exiting the work place.

B. Isolation of the work area:

1. Seal all walls with two layers of four-mil plastic sheet.

2. Seal off all duct openings, doors, windows, fan coil units, radiators, etc. with two layers of six mil plastic sheet.

C. Moveable and permanent items:

1. Disassemble all moveable items from the work area such as lights grills, registers, etc.

2.02 ASBESTOS REMOVAL

A. Method of Removal - Major Abatement

1. Post Asbestos Warning Signs in all areas of removal.

2. Construct plastic enclosures according to Asbestos Abatement Specifications and 453 CMR 6.14. Designate emergency exits.

3. Set up removal zones, under 0.02 inches of water negative pressure, as indicated in Section 1.21(A) and (B).

   The removal zone should consist of:
   A. Equipment area
   B. Showers
   C. Airlocks
   D. Clean room

4. Cover all electrical panels, Junction boxes, Fire alarm equipment, controls, etc. in removal area. Cover and seal with plastic and tape.

5. Remove all moveable items from area. Cover all non-moveable items and equipment with plastic sheeting taped securely for seal.

6. Remove all HVAC system filters after asbestos removal is completed and treat as contaminated material. At end of job provide and install new filters. Seal all HVAC openings into areas using 2 layers of 6 mil. plastic, i.e. critical barriers.

7. Barrier all windows, doors, pipe sleeves, access panels, etc. not being used for entry and exit. Attach asbestos warning signs. Use plywood or equivalent, as necessary to meet critical barrier requirements.

8. After all preparations have been made, approval for removal will be given by the Owner obtained Industrial Hygienist/IH firm. Approval is required prior to the commencement of work within the work area containment.

9. The Contractor shall remove asbestos completely using appropriate tools, i.e., nylon brushes, scrapers, as necessary so that no visible residue remains. Complete removal by wiping down with amended water. All asbestos is to be kept sufficiently wetted with amended water throughout the removal process; no dry removal is permitted.

10. Encapsulant is to be applied to all cleaned surfaces following the removal of asbestos.

11. Bag material, pack and seal for disposal according to Specifications. Bagged materials must be sufficiently wetted.

12. After approval from the Owner obtained Industrial Hygienist/IH firm remove plastic, barricades, equipment, showers, etc.

2.04 REMOVAL PRACTICES

A. After the removal and/or encapsulation and/or enclosure of asbestos has been completed and before removal of barriers, area shall be thoroughly wet cleaned and/or vacuumed with HEPA filtered vacuum.

B. Waste containers shall be packed, cleaned, labeled and removed from the work area prior to final clean up and monitoring.

C. All equipment not used in final cleanup and monitoring shall be decontaminated and removed prior to final cleanup and monitoring.

D. After first cleanup, IH shall visually examine work area for gross contamination. A second wet cleaning and/or HEPA vacuuming shall be performed. If no visible contamination is observed, the Contractor shall proceed with misting and/or encapsulation steps.

1. Misting - Lightly mist air with amended water to precipitate airborne fibers.

2. Allow five to six hours before next step to allow fibers to settle and for the work area to dry.

3. Fine cleaning must take place after misting and/or encapsulating procedures.

4. Inner layer of plastic is taken down and disposed of as asbestos waste when air monitoring results as determined by NIOSH 7400 Method indicate level is less than 0.01 f/cc.

5. The clean level test (final test) shall be a high volume (2880 liters). The clean level shall be less than 70 structures per millimeter squared (MM 2).

A. In accordance with AHERA transmission electron

microscopy (TEM) sampling and analysis shall be employed for certain work areas to conform to regulations.

2. All sampling shall be performed using aggressive methods.

6. At the discretion of the Owner-retained I.H., wipe samples may be collected for analysis by Polarized Light Microscopy if the presence of asbestos fibers on various surfaces is suspected.

   A complete absence of asbestos fibers must be reported in these samples.

7. Following the successful inspection and final testing as specified herein, all plastic barriers, tapes, and disposable contaminated equipment shall also be disposed of as contaminated waste. All reusable contaminated equipment shall be thoroughly decontaminated through wet cleaning.

A. It is the sub-contractor's responsibility to provide critical barriers, negative pressure and tent containment in the areas where removal will occur. The work area must be kept under HEAP filtered negative air pressure for a period beginning prior to disturbing he asbestos material, and not ending

B. until certification of final air clearance has been given by the PIH. A HEPA filtered vacuum cleaner will not be considered able to provide sufficient negative air pressure to a work area for the purposes of the specification.

2.05 REMOVAL OF VINYL ASBESTOS FLOOR TILE (VAT)

A. Remove vinyl-asbestos floor tile (VAT), linoleum and mastics, as indicated and in accordance with the specifications and with local DLWD, OSHA, DEP and EPA regulations.

B. Where VAT is the only ACM to be removed in an area, the area shall be secured against entry by any unauthorized or untrained person throughout the work. Work area preparation shall comply with Parts 1.10 and 1.11 of this specification.

C. Removal of VAT shall be performed with wet methods and handscrapers. Heating or the application of dry ice may be used also. If chemical solvents are to be used in the removal of VAT or mastic, they shall be of a nature that does not produce odor or noxious fumes that will impact on occupants or other areas of the building. The use of chemical remover

requires prior approval of the PIH. Power tools, grinders or other machines which may produce dust during removal of VAT and mastic are not allowed.

2.06 LOCK-BACK INCAPSULATION

2.07 GENERAL

Lock-back encapsulant is an integral part of ACM removal. At the conclusion of ACM removal and before removal of the primary barriers as specified elsewhere in this section, all surfaces shall be encapsulated with a lock-back encapsulant. The extent of work for lock-back encapsulation is described elsewhere in this section.

2.08 MONITORING, TESTING AND INSPECTION:

A. The performance and execution of the work shall be closely and continuously monitored by the Owner retained Industrial Hygienist (IH) Consultant and their technicians.

B. The Contractor is to perform his own personal sampling as required by State, local and Federal rules and regulations. Personnel samples will be collected within the breathing zones for a number of workers to be determined solely by the Contractor as per OSHA 29 CFR 1926.1101.

D. Provide full cooperation and support to the IH and their staff throughout the abatement process. The continuous monitoring and checking will include air samples in the work space; air samples in the area surrounding the work area and the outside; checking of the standard operating procedures, engineering controls, respiratory protection system, packing, packaging, transporting and disposal of asbestos, decontamination facilities and procedures, and any other aspects of the abatement process that may impact the health and safety of people and pollution of the environment.

E. Owner-retained I.H. shall be responsible for visual inspections prior to, during and following the removal of all asbestos, as well as for the testing and certifying that the work area is free of airborne asbestos fibers.

1. Area sampling shall be done outside but immediately adjacent to the work barrier prior to start of removal work.

2. Area samples shall be taken each day during removal work.

3. Area samples shall be high volume with sample volumes being approximately 2000 liters using NIOSH 7400 method. Pump flow rate shall be between 10 and 12 liters per minute (lpm).

4. Clearance samples shall be taken using the same method as area samples. Clearance samples are to be performed under aggressive sampling clearance purposes, conditions, i.e. fans running and with a leaf blower in the containment area to agitate and keep airborne any residual dust fibers. A minimum of 10% of the air volume in the containment space should be sampled for final clearance.

5. Aggressive Transmission Electron Microscopy (TEM) sampling and analysis will be required, in accordance with AHERA, in any removal area where the amount of material exceeds 260 linear feet or 160 square feet after October 8, 1990. Should the Contractor combine any "Items" to create a larger work area subsequently requiring TEM's, the contractor will be responsible for any additional expense.

6. If subsequent samples (taken after initial background sampling) are in excess of 0.01 f/cc over background, IH shall notify Contractor.

7. If subsequent background samples are equal to or greater than 0.05 f/cc work shall be halted until source of contamination is found and corrected. If source of contamination is not in the work area work may continue.

8. Any sample taken in a non work area or clearance samples which indicate levels of 0.05 f/cc or above using NIOSH 7400 method shall be verified using Polarized Light Microscopy.

9. In the instance where TEM is required for clearance air sampling, a turn around time of 48 working hours will be required for Transmission Electron Microscopy analysis.

F. The Owner shall bear all costs in connection with the laboratory work required in paragraph E.3 and E.5 above by the Owner's IH for the initial analysis, however the cost of all subsequent laboratory analysis, taken because the limits specified were exceeded, shall be borne by the Contractor. Contractor shall also bear the costs of any testing which takes place after time limits set by this contract, as a result of work stoppage.

2.11 FINAL INSPECTION AND TESTING

A. After thorough cleaning and/or encapsulation, the IH shall determine that the work space is ready for final testing and notify the Owner.

B. The final testing shall take place under active agitation of the air in the work space with air filtration units (HEPA) and fans running.

C. After the decontamination levels specified have been confirmed through the final testing specified herein, the plastic enclosure shall be removed; the exposed surface thoroughly wet cleaned and/or HEPA vacuumed; and the plastic and materials from equipment and decontamination facility shall be bagged and disposed of as contaminated material. A final check will be carried out by the IH to ensure that no dust or debris remains.

Note: Final air clearance shall be one by Transmission Electron Microscopy (TEM), therefore, the contractor should anticipate that it will take 48 hours to produce test results.

---END OF SECTION—