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New York State
Department of
Transportation
**ENGINEERING
INSTRUCTION**

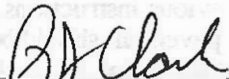
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Title: **SPECIFICATIONS FOR THE REMOVAL AND DISPOSAL OF ASBESTOS FROM BUILDINGS, BRIDGES, BRIDGE APPROACHES, AND THE GROUND AND FOR REMOVAL OF ASBESTOS CONTAINING PAVEMENT.**

Distribution:

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| <input type="checkbox"/> Manufacturers (18) | <input type="checkbox"/> Surveyors (33) |
| <input checked="" type="checkbox"/> Main Office (30) | <input checked="" type="checkbox"/> Consultants (34) |
| <input type="checkbox"/> Local Govt. (31) | <input type="checkbox"/> Contractors/AGC (39) |
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Approved:


P. J. CLARK, DEPUTY CHIEF ENGINEER
DESIGN DIVISION

4/26/96
Date

Administrative information. This instruction takes effect with the letting of September 19, 1996. The specifications issued in Engineering Instruction 92-034, 92-045, 93-002, and 94-027 are replaced by the specifications included herein. The remainder of the materials issued in those Engineering Instructions will be replaced by the anticipated revision of Chapter 1.C Asbestos Management of *Environmental Procedures Manual*.

Transmitted Materials. There are no materials transmitted with standard copies of this instruction. Special distribution copies of this instruction, however, will distribute complete metric and re-formatted english specifications for the removal of asbestos containing material from buildings, bridges, bridge approaches, other locations in the ground and asbestos containing asphalt concrete pavement. The Blanket Variances, upon which several of the specifications are based, are part of the asbestos chapter of the *Environmental Procedures Manual*, a publication of the Environmental Analysis Bureau of the New York State Department of Transportation.

Background and Discussion. The original english versions of most of these specifications were under EI 92-034 and selectively distributed with copies of that instruction. New specifications hereby introduced are:

- Item 15202.0613 (M), which may be used to remove asbestos containing bond breakers and joint fillers from structures under Blanket Variance Number 9.
- Item 15202.0614 (M), which may be used to remove asbestos containing caulking compounds from surfaces on bridges under Blanket Variance 10.
- Item 15202.0709XX (M), under which asbestos containing sheeting may be removed under a lump sum fixed price item.
- Item 15202.0710XX (M), same as above but Blanket Variance 5 applies.
- Item 15202.0711XX (M), under which asbestos containing Bondbreakers and Joint Fillers may be removed from bridge surfaces under Blanket Variance 9 as a lump sum, fixed price item.
- Item 15202.0712XX (M), under which asbestos containing caulking may be removed from bridge surfaces under Blanket Variance 10 as a lump sum, fixed price item.
- Item 15202.0713XX (M), under which miscellaneous asbestos containing materials may be removed from bridges under a lump sum, fixed price item. This is a "catch-all item" replacing item 15202.0621, which was functionally the same specification.
- Item 15202.1001 (M) and 15202.1002 (M), which may be used to remove and dispose of asbestos containing pavement as a bid item measured by the number of square meters or square feet removed either not under or under Blanket Variance 8, respectively.
- Item 15202.1101 (M) and 15202.1102 (M), which may be used to remove asbestos containing asphalt concrete pavement as a lump sum, fixed price item either not under or under Blanket Variance 8, respectively.

The (M) in the above indicates that both the US customary unit version and the SI (metric) versions are being indicated. The XX in the above indicates that the item is serialized in those places

In general, bid items measured by the area or length are preferable when the extent and location of the material

are known. Lump sum items, which the contractor is free to bid, such as for the removal of miscellaneous asbestos containing materials from either bridges or buildings, are suitable when there are several kinds of known, but small and miscellaneous, quantities of asbestos containing materials to be removed from known locations. The fixed price items are useful when the quantities and locations of the material are unknown at the time of bidding or when third parties, such as utilities, are paying for the work and request lump sum, fixed price items be used to protect them from unbalancing or other unusual bidding situations.

New Blanket Variances. Blanket Variances 8, 9, and 10 are new variances.

Blanket Variance 8 was issued to the Department 8/30/94 but has not been formally distributed or used yet. Under it, asbestos containing asphalt concrete pavement courses may be removed cold by wet saw, jackhammer, and removed to lined fiber drums. Previous instructions, such as EI 92-034 and Section 202 of the Standard Specifications, indicated that asbestos containing pavement should be heated and removed by planing while hot, however no blanket or specific variance has been issued providing for such removal.

Blanket Variance No. 9 is an alternative to, and improvement over, Blanket Variance 5. Under it, traffic barriers and the asbestos barriers may be taken down and traffic maintained over the cleaned area prior to clearance air quality monitoring if the area is protected by steel plates.

Blanket Variance 10 is an alternative to, and an improvement over, Blanket Variance 4. Under it, traffic may be maintained over portions of the structure if the area from which asbestos is being removed is protected from traffic by jersey barriers and/or 2440 mm tall wood and polyethylene barriers.

Miscellaneous Designer information. As in the past, the appropriate blanket variances and pay items in the 15202 asbestos removal series indicated in the estimate will be inserted into proposals by the Design Quality Assurance Bureau. Because the New York State Labor Law and Industrial Code Rule 56 allow only certified asbestos project designers and licensed asbestos firms to design asbestos projects, as in the past, these specifications can be used only upon the recommendation to do so made by properly certified asbestos project designers employed by the Department or by properly licensed asbestos firms. Neither the project reviewer in the Design Quality Assurance Bureau, nor any other person within that Bureau, is responsible for checking whether or not the individuals are properly certified or the firms are properly licensed to recommend these items and/or variances. This is a Regional responsibility.

The "jersey barriers" required by the Blanket Variances 5, 6R1, 8, 9, and 10 should be separately constructed, measured and paid under the Item 619.17 (M), Temporary Concrete Barrier. Pay Items 15202.0612, 15202.0613, 15202.0614, 15202.0710XX, 15202.0711XX, 15202.0712XX, 15202.0802, 15202.0902XX, 15202.1002, 15202.1102XX, and their metric equivalents, are the pay items that require the use of "jersey barrier."

Any special notes developed should be in "dual units" for metric projects or "U. S. Customary units" for projects that are not metric projects. This is a departure from our normal metric policy not to use "dual units" but the NYSDOL, which is responsible for asbestos standards in the State, is not a metric department.

Contact Persons. Larry Brown of the Design Quality Assurance Bureau at (518) 457-4093 or Jonathan Bass of the Environmental Analysis Bureau at (518) 457-5672.

How to obtain copies of the various mentioned materials. Those who need copies of individual variances or copies of individual specifications may obtain copies of these "from the shelf" by calling the Design Quality Assurance Bureau at (518) 457-6467. Ask for Ms. Bernstein or Ms. Moran and request individual copies as required. Those who need all the specifications as a set may obtain these by requesting the special distribution copy of this engineering instruction at the same telephone numbers and from the same individuals identified above.

Complete sets of the Blanket Variance and the asbestos chapter of the *Environmental Procedures Manual* may be obtained from the Environmental Analysis Bureau at (518) 457-5672.

There may be printing charges for the specifications, variances, or the asbestos chapter.

ITEM 15202.05XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BUILDINGS)

DESCRIPTION

Under this item, the Contractor shall remove and dispose of asbestos containing material from all interior and/or exterior locations of buildings designated in the Contract Documents and/or where directed by the Engineer in accordance with: Industrial Code Rule 56 or, if indicated, an approved variance thereof promulgated by the New York State Department of Labor (NYSDOL); the National Emission Standards for Hazardous Air Pollutants (NESHAP), promulgated by the United States Environmental Protection Agency (USEPA); and the Occupational Safety and Health Act (OSHA).

A partial list of applicable OSHA requirements is indicated below:

29 CFR 1910.1001	29 CFR 1910.2
29 CFR 1926.58	29 CFR 1910.1200
29 CFR 1910.134	29 CFR 1910.145

Asbestos containing material shall be disposed of in accordance with 40 CFR Part 61 and all other requirements and laws, rules, and regulations of Federal, State or local agencies. Disposal sites which accept asbestos containing materials for disposal shall be permitted by the New York State Department of Environmental Conservation (NYSDEC) to accept such material for disposal. If disposed of out-of-state, the rules, regulations, and laws of that state shall apply.

Additional project specific requirements may be found on the plans or in the proposal in a note entitled "Asbestos Remediation Supplemental Requirements."

Definition. Project Monitor. A person engaged by the State and certified by NYSDOL as a project monitor, other than the asbestos abatement contractor or an employee or agent thereof, who oversees the scope, timing, phasing, and/or remediation methods to be utilized on the asbestos project. Not all projects will have project monitors.

MATERIALS. All materials used in the performance of the work shall comply with all applicable regulatory standards. Respirators and filters shall comply with NIOSH and MSHA standards. All electrical equipment shall utilize ground fault interrupters and shall be listed by the Underwriter's Laboratory. HEPA filtration systems shall comply with ANSI Z9.2-79.

CONSTRUCTION DETAILS. In addition to the requirements given above, the following shall also apply: Prior to beginning any work under this item, the Contractor shall supply the Engineer with proof that the firm performing the work has a valid asbestos handling license; that its insurance coverage whether provided by the Contractor or the Asbestos Subcontractor, is otherwise consistent with §107-06 and includes an asbestos specific occurrence type policy with no deductible or sunset clause; that its project supervisor is a DOL certified asbestos project supervisor; that all employees engaged in the work are properly certified and have current physical examinations and respirator fit tests; and that the proper notification of work beginning on the asbestos project has been given to NYSDOL and USEPA. Also, after the work is completed, the Contractor shall provide the Engineer with a written certification ("Waste Shipment Record") that the material was disposed of in an approved waste disposal site. The certification shall include the name and address of the waste disposal site or sites used.

Unless indicated otherwise, the Contractor shall arrange for the air quality monitor. The firm and persons engaged shall be: properly licensed and certified; independent of the Contractor or the Asbestos Contractor performing the asbestos work; properly insured; and approved by the Engineer.

In the event of a conflict between these specification requirements and laws, rules and regulations of Federal, State or local agencies, the more restrictive of the specification or the laws, rules or regulations

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REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BUILDINGS)

shall apply.

Two copies of Daily logs, Visitor Logs, OSHA Air Monitoring record, and New York State Department of Labor compliance air monitoring records shall be provided to the Engineer.

METHOD OF MEASUREMENT. The quantity of asbestos containing material to be measured for payment will be determined by one of the following methods, as indicated:

A. **Square Meter.** The quantity to be measured will be the actual area, measured to the nearest one tenth square meter, of asbestos containing material removed and disposed of in accordance with the contract documents, Industrial Code Rule 56, or an approved variance thereof.

B. **Linear Meter.** The quantity to be measured will be the actual length, measured to the nearest one tenth meter, of asbestos containing material removed and disposed of in accordance with the contract documents, Industrial Code Rule 56, or an approved variance thereof.

C. **Lump Sum (Bid Item).** The quantity will be measured for payment on a lump sum basis. No actual measurements will be taken.

D. **Lump Sum (Fixed Price).** The lump sum of money shown in the itemized proposal for this work will be considered the price bid even though payment will be made only for the actual work performed. The lump sum figure is not to be altered in any manner by the bidder. Should the bidder alter the amount shown, the altered figure will be disregarded and the original figure will be used to determine the total amount bid for the contract. Actual payments on contract will be based on one or both of the following:

1 **Agreed Price.** Based on a cost analysis submitted by the Contractor in accordance with the provisions of §109-05 of the Standard Specifications and agreed to by the State prior to performing the work. The submittal shall include a detailed estimate from the licensed asbestos removal contractor for the estimated cost of the removal and disposal.

2 **Force Account.** Payment of the actual and reasonable cost of doing the work in accordance with the provisions of §109-05 of the Standard Specifications. A separate force account will be maintained of the total asbestos removal work performed on each building to be worked on.

BASIS OF PAYMENT One of the following shall apply, as appropriate:

A. **Square Meter, Linear Meter, or Lump Sum Bid Items.** The unit prices bid or the lump sum bid for this work shall include the cost of air quality monitoring, unless indicated elsewhere in the Contract Documents. They shall also include all labor, materials, equipment, and fees and insurances of all kinds necessary to complete the asbestos removal and disposal work in accordance with the plans, specifications, and applicable Federal, State, and Local laws, rules, and regulations.

Payment for 75% of the completed actual quantity will be made upon the Project Monitor's written concurrence with the Contractor's certification as to the following: that the building is visually free of asbestos; that the removal of the asbestos containing material was performed as required; that the final clearance air monitoring results meet the acceptable level specified in Industrial Code Rule 56; and, that the building(s) are certified by the Asbestos contractor to be available for normal demolition. If there is

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ITEM 15202.05XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BUILDINGS)

no Project Monitor on the project, the Engineer's concurrence with the Certification will be necessary before any payments can be released.

The remainder of the payment for completed work will be made upon receipt by the Engineer of a certified statement from the disposal facility, signed by an official thereof, that the asbestos containing material has been accepted and disposed of in accordance with all applicable laws, codes, rules, and regulations.

B. Lump Sum, Fixed Price Item. The lump sum amount published in the proposal is an amount estimated by the State to be adequate to complete the work. The Contractor however will not be obligated to complete the work within the amount published nor will the State by publishing the price be obligated to pay over to the Contractor the whole or any of the amount published. Actual payments under this work will be made by the force account method or by the agreed price method, or by a combination thereof, as agreed to by the State and the Contractor in writing prior to undertaking the work, in accordance with §109-05. Actual payments may total less than the lump sum amount published in the proposal or, with an order-on-contract, may total more than the lump sum amount published in the proposal.

Payment for 75% of the completed actual quantity will be made upon the Project Monitor's written concurrence with the Contractor's certification as to the following: that the building is visually free of asbestos; the removal of the asbestos containing material was performed as required; that the final clearance air monitoring results meet the acceptable level specified in Industrial Code Rule 56; and, that the building(s) are certified by the Asbestos contractor to be available for normal demolition. If there is no Project Monitor on the project, the Engineer's concurrence with the Certification will be necessary before any payments can be released.

The remainder of the payment for completed work will be made upon receipt by the Engineer of a certified statement from the disposal facility, signed by an official thereof, that the asbestos containing material has been accepted and disposed of in accordance with all applicable laws, codes, rules, and regulations.

Asbestos specific insurance premiums will be reimbursed as the actual and identifiable cost of the portion of the premium attributable to the work performed under the Lump Sum, Fixed Price Item. No overhead or profit will be allowed on asbestos specific insurance premiums. The cost of other insurance premiums will be reimbursed as given in this specification and §109-05.

payment will be made under:

15202.0501 M	Removal and Disposal of Asbestos Containing Built-Up Roofing	Square Meters
15202.0502 M	Removal and Disposal of Asbestos Containing Built-Up Roofing (Applicable Variance 83)	Square Meters
15202.0503 M	Removal and Disposal of Asbestos Containing Transite Roofing/Siding	Square Meters
15202.0504 M	Removal and Disposal of Asbestos Containing Transite Roofing/Siding (Applicable Variance 84)	Square Meters

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ITEM 15202.05XX M	REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BUILDINGS)	
15202.0505 M	Removal and Disposal of Asbestos Containing Floor Tiles	Square Meters
15202.0506 M	Removal and Disposal of Asbestos Containing Floor Tiles (Applicable Variance 85)	Square Meters
15202.0507 M	Removal and Disposal of Asbestos Containing Ceilings	Square Meters
15202.0508 M	Removal and Disposal of Asbestos Containing Ceilings (Applicable Variance 86)	Square Meters
15202.0509 M	Removal and Disposal of Asbestos Containing or Wrapped Piping	Linear Meters
15202.0510 M	Removal and Disposal of Asbestos Containing or Wrapped Piping (Applicable Variance 87)	Linear Meters
15202.0511 M	Removal and Disposal of Asbestos Containing Roof Shingles	Square Meters
15202.0512 M	Removal and Disposal of Asbestos Containing Roof Shingles (Applicable Variance 88)	Square Meters
15202.0513 M	Removal and Disposal of Asbestos Containing Shingle Siding	Square Meters
15202.0514 M	Removal and Disposal of Asbestos Containing Shingle Siding (Applicable Variance 89)	Square Meters
15202.0515 M	Removal and Disposal of Asbestos Containing Roof Flashing	Linear Meters
15202.0516 M	Removal and Disposal of Asbestos Containing Roof Flashing (Applicable Variance 90)	Linear Meters
15202.0517 M	Removal and Disposal of Asbestos Containing Material-Glove Bag Operation	Linear Meters
15202.0518 M	Removal and Disposal of Asbestos Containing Material-Glove Bag Operation (Applicable Variance 91)	Linear Meters
15202.0520XX M	Removal and Disposal of Miscellaneous Asbestos Containing Material (Buildings)	Lump Sum
15202.0521XX M	Removal and Disposal of Miscellaneous Asbestos Containing Material (Buildings)	Lump Sum, Fixed Price

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ITEM 15202.06XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BRIDGES)
ITEM 15202.07XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BRIDGES)

DESCRIPTION

Under this item, the Contractor shall remove and dispose of asbestos containing material from the bridges designated in the Contract Documents and/or where directed by the Engineer. All work shall be in accordance with: Industrial Code Rule 56 or, if indicated, an approved variance thereof promulgated by the New York State Department of Labor (NYSDOL); the National Emission Standards for Hazardous Air Pollutants (NESHAP), promulgated by the United States Environmental Protection Agency (USEPA); and the Occupational Safety and Health Act (OSHA).

A partial list of applicable OSHA requirements is indicated below:

29 CFR 1910.1001	29 CFR 1910.2
29 CFR 1926.58	29 CFR 1910.1200
29 CFR 1910.134	29 CFR 1910.145

Asbestos containing material shall be disposed of in accordance with 40 CFR Part 61 and all other requirement and laws, rules, and regulations of Federal, State or local agencies. Disposal sites which accept asbestos containing materials for disposal shall be hold a valid permit to do so issued by the New York State Department of Environmental Conservation (NYSDEC). If disposed of out-of-state, the rules, regulations, and laws of that state shall apply.

Additional project specific requirements may be found on the plans or in the proposal in a note entitled "Asbestos Remediation Supplemental Requirements."

Definition.

Project Monitor. A person engaged by the State and certified by NYSDOL as a project monitor, other than the asbestos abatement contractor or an employee or agent thereof, who oversees the scope, timing, phasing and/or remediation methods to be utilized on the asbestos project. A project monitor may or may not be assigned to the project.

MATERIALS

All materials used in the performance of the work shall comply with all applicable regulatory standards. Respirators and filters shall comply with NIOSH and MSHA standards. All electrical equipment shall utilize ground fault interrupters and shall be listed by the Underwriter's Laboratory. HEPA filtration systems shall comply with ANSI Z9.2-79.

CONSTRUCTION DETAILS

In addition to the requirements given above, the following shall also apply: Prior to beginning any work under this item, the Contractor shall supply the Engineer with proof that the firm performing the work has a valid asbestos handling license issued by the New York State Department of Labor; that its insurance coverage, whether provided by the Contractor or the Asbestos Subcontractor, is otherwise consistent with §107-06 and includes an asbestos specific occurrence type policy with no deductible or sunset clause; that its project supervisor is a NYSDOL certified asbestos project supervisor; that all employees engaged in the work are properly certified and have current physical examinations and respirator fit tests; and that the proper notification of work beginning on the asbestos project has been given to NYSDOL and USEPA. After the work is completed, the Contractor shall provide the Engineer with

- ITEM 15202.06XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BRIDGES)
- ITEM 15202.07XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BRIDGES)

a written certification ("Waste Shipment Record") that the material was disposed of in an approved waste disposal site. The certification shall include the name and address of the waste disposal site or sites used.

Unless indicated otherwise, the Contractor shall arrange for air quality monitor. The firm and persons engaged shall be: properly licensed and certified; independent of the Contractor or the Asbestos Contractor performing the asbestos work; properly insured; and approved by the Engineer.

In the event of a conflict between these specification requirements and laws, rules and regulations of other Federal, State or local agencies, the more restrictive of the specification or the laws, rules or regulations shall apply.

Two copies of Daily logs, Visitor Logs, OSHA Air Monitoring record, and New York State Department of Labor compliance air monitoring records shall be provided to the Engineer.

METHOD OF MEASUREMENT

The quantity of asbestos containing material to be measured for payment will be determined by one of the following methods, as indicated:

A. **Square Meter.** The quantity to be measured will be the actual area, measured to the nearest one tenth square meter, of asbestos containing material removed and disposed of in accordance with the contract documents or Industrial Code Rule 56 or an approved variance thereof.

B. **Linear Meter.** The quantity to be measured will be the actual length measured to the nearest one tenth meter, of asbestos containing material removed and disposed of in accordance with the contract documents or Industrial Code Rule 56, or an approved variance thereof.

C. **Lump Sum (Bid).** The quantity will be measured for payment on a lump sum basis. No actual measurements will be taken.

D. **Lump Sum, Fixed Price.** The lump sum of money shown in the itemized proposal for this work will be considered the price bid even though payment will be made only for the actual work performed. The lump sum figure is not to be altered in any manner by the bidder. Should the bidder alter the amount shown, the altered figure will be disregarded and the original figure will be used to determine the total amount bid for the contract. Actual payments on contract will be based on one or both of the following:

1 **Agreed Price.** Based on a cost analysis submitted by the Contractor in accordance with the provisions of §109-05 of the Standard Specifications and agreed to by the State in writing prior to performing the work. The analysis shall include a detailed estimate from the licensed asbestos removal contractor for the estimated cost of the removal and disposal.

2 **Force Account.** Payment of the actual and reasonable cost of doing the work in accordance with the provisions of §109-05 of the Standard Specifications. A separate force account will be maintained of the total asbestos removal work performed on each bridge to be worked on.

BASIS OF PAYMENT

- ITEM 15202.06XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BRIDGES)
- ITEM 15202.07XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BRIDGES)

One of the following shall apply, as appropriate:

A. **Square Meter, Linear Meter, or Lump Sum Bid Items.** The unit prices bid or the lump sum bid for this work shall include the cost of air quality monitoring, unless indicated elsewhere in the Contract Documents. They shall also include all labor, materials, equipment, and fees and insurances of all kinds necessary to complete the asbestos removal and disposal work in accordance with the plans, specifications, and applicable Federal, State, and Local laws, rules, and regulations, except that "jersey barrier" required under the variance will be constructed, measured and paid for under the item for Temporary Concrete Barrier.

Payment for 75% of the completed actual quantity will be made upon the Project Monitor's written concurrence with the Contractor's certification as to the following: that the bridge is visually free of asbestos; that the removal of the asbestos containing material was performed as required; that the final clearance air monitoring results meet the acceptable level specified in Industrial Code Rule 56; and, that the bridge(s) are certified by the Asbestos contractor to be available for normal contractor operations. If there is no Project Monitor on the project, the Engineer's concurrence with the Certification will be necessary before any payments can be released.

The remainder of the payment for completed work will be made upon receipt by the Engineer of a certified statement from the disposal facility, signed by an official thereof, that the asbestos containing material has been accepted and disposed of in accordance with all applicable laws, codes, rules, and regulations.

B. **Lump Sum, Fixed Price Item.** The lump sum amount published in the proposal is an amount estimated by the State to be adequate to complete the work. The Contractor, however, will not be obligated to complete the work within the amount published nor by publishing the price will the State be obligated to pay over to the Contractor the whole or any of the amount published. Actual payments under this work will be made by the force account method or by the agreed price method, or by a combination thereof, as agreed to by the State and the Contractor in writing prior to undertaking the work, in accordance with §109-05. Actual payments may total less than the lump sum amount published in the proposal or, with an order-on-contract, may total more than the lump sum amount published in the proposal.

Payment for 75% of the completed actual quantity will be made upon the Project Monitor's written concurrence with the Contractor's certification as to the following: that the bridge is visually free of asbestos; that the removal of the asbestos containing material was performed as required; that the final clearance air monitoring results meet the acceptable level specified in Industrial Code Rule 56; and, that the bridge(s) are certified by the Asbestos contractor to be available for normal Contractor operations. If there is no Project Monitor on the project, the Engineer's concurrence with the Certification will be necessary before any payments can be released.

The remainder of the payment for completed work will be made upon receipt by the Engineer of a certified statement from the disposal facility, signed by an official thereof, that the asbestos containing material has been accepted and disposed of in accordance with all applicable laws, codes, rules, and regulations.

Asbestos specific insurance premiums will be reimbursed as the actual and identifiable cost of the portion of the premium attributable to the work performed under the Lump Sum, Fixed Price Item. No overhead or profit will be allowed on asbestos specific insurance premiums. The cost of other insurance premiums will be reimbursed as given in this specification and §109-05.

ITEM 15202.06XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BRIDGES)
 ITEM 15202.07XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BRIDGES)

payment will be made under:

15202.0601 M	Removal and Disposal of Asbestos Containing Transite Pipe Encased in Sidewalk of Bridge	Square Meters
15202.0602 M	Removal and Disposal of Asbestos Containing Transite Pipe Encased in Sidewalk of Bridge (Blanket Variance 1)	Square Meters
15202.0603 M	Removal and Disposal of Asbestos Containing Transite Pipe Buried in Ground in Bridge Approach	Linear Meters
15202.0604 M	Removal and Disposal of Asbestos Containing Transite Pipe Buried in Ground in Bridge Approach (Blanket Variance 2)	Linear Meters
15202.0605 M	Removal and Disposal of Asbestos Containing Transite Pipe Suspended From Bridge	Linear Meters
15202.0606 M	Removal and Disposal of Asbestos Containing Transite Pipe Suspended From Bridge (Blanket Variance 3R1)	Linear Meters
15202.0607 M	Removal and Disposal of Asbestos Containing Pipe Insulation Suspended From Bridge	Linear Meters
15202.0608 M	Removal and Disposal of Asbestos Containing Pipe Insulation Suspended From Bridge (Blanket Variance 3R1)	Linear Meters
15202.0609 M	Removal and Disposal of Asbestos Containing Plastic Asbestos Asphalt Cement	Linear Meters
15202.0610 M	Removal and Disposal of Asbestos Containing Plastic Asbestos Asphalt Cement (Blanket Variance 4)	Linear Meters
15202.0611 M	Removal and Disposal of Asbestos Containing Graphite Coated Asbestos Sheets	Square Meters
15202.0612 M	Removal and Disposal of Asbestos Containing	

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ITEM 15202.06XX M	REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BRIDGES)	
ITEM 15202.07XX M	REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BRIDGES)	
	Graphite Coated Asbestos Sheets (Blanket Variance 5)	Square Meters
15202.0613 M	Removal and Disposal of Asbestos Containing Bond Breaker & Joint Fillers from Surfaces on Bridges (Blanket Variance 9)	Square Meters
15202.0614 M	Removal and Disposal of Asbestos Containing Caulking Compound from Surfaces on Bridges (Blanket Variance 10)	Linear Meters
15202.0620XX M	Removal and Disposal of Asbestos Containing Material (Bridges)	Lump Sum
15202.0701XX M	Removal and Disposal of Asbestos Containing Transite Pipe Encased in Sidewalk of Bridge	Lump Sum, Fixed Price
15202.0702XX M	Removal and Disposal of Asbestos Containing Transite Pipe Encased in Sidewalk of Bridge (Blanket Variance 1)	Lump Sum, Fixed Price
15202.0703XX M	Removal and Disposal of Asbestos Containing Transite Pipe Buried in Ground in Bridge Approach	Lump Sum, Fixed Price
15202.0704XX M	Removal and Disposal of Asbestos Containing Transite Pipe Buried in Ground in Bridge Approach (Blanket Variance 2)	Lump Sum, Fixed Price
15202.0705XX M	Removal and Disposal of Asbestos Containing Transite Pipe Suspended From Bridge	Lump Sum, Fixed Price
15202.0706XX M	Removal and Disposal of Asbestos Containing Transite Pipe Suspended From Bridge (Blanket Variance 3R1)	Lump Sum, Fixed Price
15202.0707XX M	Removal and Disposal of Asbestos Containing Pipe Insulation Suspended From Bridge	Lump Sum, Fixed Price
15202.0708XX M	Removal and Disposal of Asbestos Containing Pipe Insulation Suspended From Bridge (Blanket Variance 3R1)	Lump Sum, Fixed Price
15202.0709XX M	Removal and Disposal of Asbestos Containing Graphite Coated Asbestos Sheets	Lump Sum, Fixed Price

ITEM 15202.06XX M	REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BRIDGES)	
ITEM 15202.07XX M	REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL (BRIDGES)	
15202.0710XX M	Removal and Disposal of Asbestos Containing Graphite Coated Asbestos Sheets (Blanket Variance 5)	Lump Sum, Fixed Price
15202.0711XX M	Removal and Disposal of Asbestos Containing Bond Breaker & Joint Fillers from Surfaces on Bridges (Blanket Variance 9)	Lump Sum, Fixed Price
15202.0712XX M	Removal and Disposal of Asbestos Containing Caulking Compound from Surfaces on Bridges (Blanket Variance 10)	Lump Sum, Fixed Price
15202.0713XX M	Removal and Disposal of Miscellaneous Asbestos Containing Material (Bridges)	Lump Sum, Fixed Price

ITEM 15202.08XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING OR WRAPPED PIPE BURIED IN GROUND
ITEM 15202.09XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING OR WRAPPED PIPE BURIED IN GROUND

DESCRIPTION

Under this item, the Contractor shall remove and dispose of asbestos wrapped pipe or asbestos containing transite pipe buried in the ground from the locations designated in the Contract Documents and/or where directed by the Engineer. All work shall be in accordance with: Industrial Code Rule 56 or, if indicated, an approved variance thereof promulgated by the New York State Department of Labor (NYSDOL); the National Emission Standards for Hazardous Air Pollutants (NESHAP), promulgated by the United States Environmental Protection Agency (USEPA); and the Occupational Safety and Health Act (OSHA).

A partial list of applicable OSHA requirements is indicated below:

29 CFR 1910.1001	29 CFR 1910.2
29 CFR 1926.58	29 CFR 1910.1200
29 CFR 1910.134	29 CFR 1910.145

Asbestos containing material shall be disposed of in accordance with 40 CFR Part 61 and all other requirements and laws, rules, and regulations of Federal, State or local agencies. Disposal sites which accept asbestos containing materials for disposal shall hold a valid permit to do so issued by the New York State Department of Environmental Conservation (NYSDEC). If disposed of out-of-state, the rules, regulations, and laws of that state shall apply.

Additional project specific requirements may be found on the plans or in the proposal in a note entitled "Asbestos Remediation Supplemental Requirements."

Definition:

Project Monitor. A person engaged by the State and certified by the New York State Department of Labor as a Project Montor, other than the asbestos contactor or an employee or agent thereof, who oversees the scope, timing, phasing and/or remediation methods to be utilized on the asbestos project. A project monitor may or may not be assigned to the project.

MATERIALS. All materials used in the performance of the work shall comply with all applicable regulatory standards. Respirators and filters shall comply with NIOSH and MSHA standards. All electrical equipment shall utilize ground fault interrupters and shall be listed by the Underwriter's Laboratory. HEPA filtration systems shall comply with ANSI Z9.2-79.

CONSTRUCTION DETAILS. In addition to the requirements given above, the following shall also apply: Prior to beginning any work under this item, the Contractor shall supply the Engineer with proof that the firm performing the work has a valid asbestos handling license issued by the New York State Department of Labor; that its insurance coverage, whether provided by Contactor or the Asbestos Subcontractor, is otherwise consistent with §107-06 and includes an asbestos specific occurrence type policy with no deductible or sunset clause; that its project supervisor is a NYSDOL certified asbestos project supervisor; that all employees engaged in the work are properly certified and have current physical examinations and respirator fit tests; and that the proper notification of work beginning on the asbestos project has been given to NYSDOL and USEPA. After the work is completed, the Contractor shall provide the Engineer with a written certification ("Waste Shipment Record") that the material was disposed of in an approved waste disposal site. The certification shall include the name and address of the waste disposal site or sites used.

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REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING OR WRAPPED PIPE BURIED IN GROUND

ITEM 15202.09XX M

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING OR WRAPPED PIPE BURIED IN GROUND

Unless indicated otherwise, the Contractor shall arrange for air quality monitor. The firm and persons engaged shall be: properly licensed and certified; independent of the Contractor or the Asbestos Contractor performing the asbestos work; properly insured; and approved by the State.

In the event of a conflict between these specification requirements and laws, rules and regulations of other Federal, State or local agencies, the more restrictive of the specification or the laws, rules or regulations shall apply.

Two copies of Daily logs, Visitor Logs, OSHA Air Monitoring record, and New York State Department of Labor compliance air monitoring records shall be provided to the Engineer.

METHOD OF MEASUREMENT. The quantity of asbestos containing material to be measured for payment will be determined by one of the following methods, as indicated:

A. **Linear Meter.** The quantity to be measured will be the actual length, measured to the nearest one tenth meter, of asbestos containing or wrapped pipe removed and disposed of in accordance with the contract documents, Industrial Code Rule 56, or an approved variance thereof.

B. **Lump Sum, Fixed Price.** The lump sum of money shown in the itemized proposal for this work will be considered the price bid even though payment will be made only for the actual work performed. The lump sum figure is not to be altered in any manner by the bidder. Should the bidder alter the amount shown, the altered figure will be disregarded and the original figure will be used to determine the total amount bid for the contract. Actual payments on contract will be based on one or both of the following:

1 **Agreed Price.** Based on a cost analysis submitted by the Contractor in accordance with the provisions of §109-05 of the Standard Specifications and agreed to by the State prior to performing the work. The analysis shall include a detailed estimate from the licensed asbestos removal contractor for the estimated cost of the removal and disposal.

2 **Force Account.** Payment of the actual and reasonable cost of doing the work in accordance with the provisions of §109-05 of the Standard Specifications. Separate force accounts will be maintained as directed by the Engineer.

BASIS OF PAYMENT

One of the following shall apply, as appropriate:

A. **Linear Meter.** The unit prices bid per linear meter for this work shall include the cost of air quality monitoring, unless indicated elsewhere in the Contract Documents. They shall also include all labor, materials, equipment, and fees and insurances of all kinds necessary to complete the asbestos removal and disposal work in accordance with the plans, specifications, and applicable Federal, State, and Local laws, rules, and regulations.

Payment for 75% of the completed actual quantity will be made upon the Project Monitor's written concurrence with the Contractor's certification as to the following: that the site is visually free of asbestos; the removal of the asbestos containing material was performed as required; that the final clearance air monitoring results meet the acceptable level specified in Industrial Code Rule 56; and, that the site(s) are certified by the Asbestos contractor to be available for normal Contractor operations. If there is no Project Monitor on the project, the Engineer's concurrence with the Certification will be necessary before any

- ITEM 15202.08XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING OR WRAPPED PIPE BURIED IN GROUND
- ITEM 15202.09XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING OR WRAPPED PIPE BURIED IN GROUND

payments can be released.

The remainder of the payment for completed work will be made upon receipt by the Engineer of a certified statement from the disposal facility, signed by an official thereof, that the asbestos containing material has been accepted and disposed of in accordance with all applicable laws, codes, rules, and regulations.

B. Lump Sum, Fixed Price Item. The lump sum amount published in the proposal is an amount estimated by the State to be adequate to complete the work. The Contractor however will not be obligated to complete the work within the amount published nor will the State by publishing the price be obligated to pay over to the Contractor the whole or any of the amount published. Actual payments under this work will be made by the force account method, or by the agreed price method, or a combination thereof, as agreed to by the State and the Contractor in writing prior to undertaking the work in accordance with §109-05. Actual payments may total less than the lump sum amount published in the proposal or, with an order-on-contract, may total more than the lump sum amount published in the proposal.

Payment for 75% of the completed actual quantity will be made upon the Project Monitor's written concurrence with the Contractor's certification as to the following: that the site is visually free of asbestos; that the removal of the asbestos containing material was performed as required; that the final clearance air monitoring results meet the acceptable level specified in Industrial Code Rule 56; and, that the site(s) are certified by the Asbestos contractor to be available for normal Contractor operations. If there is no Project Monitor on the project, the Engineer's concurrence with the Certification will be necessary before any payments can be released.

The remainder of the payment for completed work will be made upon receipt by the Engineer of a certified statement from the disposal facility, signed by an official thereof, that the asbestos containing material has been accepted and disposed of in accordance with all applicable laws, codes, rules, and regulations.

Asbestos specific insurance premiums will be reimbursed as the actual and identifiable cost of the portion of the premium attributable to the work under the Lump Sum, Fixed Price Item. No overhead or profit will be allowed on asbestos specific insurance premiums. The reimbursement of other insurance premiums shall be as given in this specification and §109-05.

payment will be made under:

- 15202.0801 M Removal and Disposal of Asbestos Containing or Wrapped Pipe Buried in Ground Linear Meters
- 15202.0802 M Removal and Disposal of Asbestos Containing or Wrapped Pipe Buried in Ground (Blanket Variance 6R1) Linear Meters
- 15202.0901XX M Removal and Disposal of Asbestos Containing or Wrapped Pipe Buried in Ground Lump Sum, Fixed Price
- 15202.0902XX M Removal and Disposal of Asbestos Containing or Wrapped Pipe Buried in Ground (Blanket Variance 6R1) Lump Sum, Fixed Price

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- ITEM 15202.10XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING ASPHALT CONCRETE PAVEMENT (SQUARE METERS)
- ITEM 15202.11XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING ASPHALT CONCRETE PAVEMENT(FIXED PRICE, LUMP SUM)

DESCRIPTION

Under this item, the Contractor shall remove and dispose of asbestos containing pavement from the locations designated in the Contract Documents and/or where directed by the Engineer. All work shall be in accordance with: Industrial Code Rule 56 or, if indicated, an approved variance thereof promulgated by the New York State Department of Labor (NYSDOL); the National Emission Standards for Hazardous Air Pollutants (NESHAP), promulgated by the United States Environmental Protection Agency (USEPA); and the Occupational Safety and Health Act (OSHA).

A partial list of applicable OSHA requirements is indicated below:

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|------------------|------------------|
| 29 CFR 1910.1001 | 29 CFR 1910.2 |
| 29 CFR 1926.58 | 29 CFR 1910.1200 |
| 29 CFR 1910.134 | 29 CFR 1910.145 |

Asbestos containing material shall be disposed of in accordance with 40 CFR Part 61 and all other requirement and laws, rules, and regulations of Federal, State or local agencies. Disposal sites which accept asbestos containing materials for disposal shall hold a valid permit to do so issued by the New York State Department of Environmental Conservation (NYSDEC). If disposed of out-of-state, the rules, regulations, and laws of that state shall apply.

Additional project specific requirements may be found on the plans or in the proposal in a note entitled "Asbestos Remediation Supplemental Requirements."

Definition:

Project Monitor. A person engaged by the State and certified by the New York State Department of Labor as a Project Monitor, other than the asbestos contactor or an employee or agent thereof, who oversees the scope, timing, phasing and/or remediation methods to be utilized on the asbestos project. There may not be a project monitor on every project.

MATERIALS

All materials used in the performance of the work shall comply with all applicable regulatory standards. Respirators and filters shall comply with NIOSH and MSHA standards. All electrical equipment shall utilize ground fault interrupters and shall be listed by the Underwriter's Laboratory. HEPA filtration systems shall comply with ANSI Z9.2-79.

CONSTRUCTION DETAILS

In addition to the requirements given above, the following shall also apply: Prior to beginning any work under this item, the Contractor shall supply the Engineer with proof that the firm performing the work has a valid asbestos handling license issued by the New York State Department of Labor; that its insurance coverage, whether provided by the Contractor or the Asbestos Subcontractor, is otherwise consistent with §107-06 and includes an asbestos specific occurrence type policy with no deductible or sunset clause; that its project supervisor is a NYSDOL certified asbestos project supervisor; that all employees engaged in the work are properly certified and have current physical examinations and respirator fit tests; and that the proper notification of work beginning on the asbestos project has been given to NYSDOL and USEPA. After the work is completed, the Contractor shall provide the Engineer with a written certification ("Waste Shipment Record") that the material was disposed of in an approved waste

ITEM 15202.10XX M

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING ASPHALT CONCRETE PAVEMENT (SQUARE METERS)

ITEM 15202.11XX M

REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING ASPHALT CONCRETE PAVEMENT(FIXED PRICE, LUMP SUM)

disposal site. The certification shall include the name and address of the waste disposal site or sites used.

Unless indicated otherwise, the Contractor shall arrange for air quality monitor. The firm and persons engaged shall be: properly licensed and certified; independent of the Contractor or the Asbestos Contractor performing the asbestos work; properly insured; and approved by the Engineer.

In the event of a conflict between these specification requirements and laws, rules and regulations of other Federal, State or local agencies, the more restrictive of the specification or the laws, rules or regulations shall apply.

Two copies of Daily logs, Visitor Logs, OSHA Air Monitoring record, and New York State Department of Labor compliance air monitoring records shall be provided to the Engineer.

METHOD OF MEASUREMENT. The quantity of asbestos containing material to be measured for payment will be determined by one of the following methods, as indicated:

A. **Square Meter.** The quantity to be measured will be the actual area, measured to the nearest one tenth square meter, of asbestos containing asphalt concrete pavement removed and disposed of in accordance with the contract documents, Industrial Code Rule 56, or an approved variance thereof.

B. **Lump Sum, Fixed Price.** The lump sum of money shown in the itemized proposal for this work will be considered the price bid even though payment will be made only for the actual work performed. The lump sum figure is not to be altered in any manner by the bidder. Should the bidder alter the amount shown, the altered figure will be disregarded and the original figure will be used to determine the total amount bid for the contract. Actual payments on contract will be based on one or both of the following:

1 **Agreed Price.** Based on a cost analysis submitted by the Contractor in accordance with the provisions of §109-05 of the Standard Specifications and agreed to by the State prior to performing the work. The submittal shall include a detailed estimate from the licensed asbestos removal contractor for the estimated cost of the removal and disposal.

2 **Force Account.** Payment of the actual and reasonable cost of doing the work in accordance with the provisions of §109-05 of the Standard Specifications. Separate force accounts will be maintained as directed by the Engineer.

BASIS OF PAYMENT. One of the following shall apply, as appropriate:

A. **Square Meter.** The unit prices bid per square meter for this work shall include the cost of air quality monitoring, unless indicated elsewhere in the Contract Documents. They shall also include all labor, materials, equipment, insurances and fees of all kinds necessary to remove asbestos containing asphalt concrete in accordance with the plans, specifications, and applicable Federal, State, and Local laws, rules, and regulations, except "jersey barrier" required under the variance will be constructed, measured and paid for under the item for Temporary Concrete Barrier.

Payment for 75% of the completed actual quantity will be made upon the Project Monitor's written concurrence with the Contractor's certification as to the following: that the building is visually free of asbestos; that the removal of the asbestos containing material was performed as required; that the final clearance air monitoring results meet the acceptable level specified in Industrial Code Rule 56; and, that

- ITEM 15202.10XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING ASPHALT CONCRETE PAVEMENT (SQUARE METERS)
- ITEM 15202.11XX M REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING ASPHALT CONCRETE PAVEMENT(FIXED PRICE, LUMP SUM)

the site(s) are certified by the Asbestos contractor to be available for normal Contractor operations. If there is no Project Monitor on the project, the Engineer's concurrence with the Certification will be necessary before any payments can be released.

The remainder of the payment for completed work will be made upon receipt by the Engineer of a certified statement from the disposal facility, signed by an official thereof, that the asbestos containing material has been accepted and disposed of in accordance with all applicable laws, codes, rules, and regulations.

B. Lump Sum, Fixed Price Item. The lump sum amount published in the proposal is an amount estimated by the State to be adequate to complete the work. The Contractor, however, will not be obligated to complete the work within the amount published nor will the State, by publishing the price, be obligated to pay over to the Contractor the whole or any of the amount published. Actual payments under this work will be made by the force account method, or by the agreed price method, or by a combination thereof, as agreed to by the State and the Contractor in writing prior to undertaking the work in accordance with §109-05. Actual payments may total less than the lump sum amount published in the proposal or, with an order-on-contract, may total more than the lump sum amount published in the proposal.

Payment for 75% of the completed actual quantity will be made upon the Project Monitor's written concurrence with the Contractor's certification as to the following: that the site is visually free of asbestos; that the removal of the asbestos containing material was performed as required; that the final clearance air monitoring results meet the acceptable level specified in Industrial Code Rule 56; and, that the site(s) are certified by the Asbestos contractor to be available for normal Contractor operations. If there is no Project Monitor on the project, the Engineer's concurrence with the Certification will be necessary before any payments can be released.

The remainder of the payment for completed work will be made upon receipt by the Engineer of a certified statement from the disposal facility, signed by an official thereof, that the asbestos containing asphalt concrete has been accepted and disposed of in accordance with all applicable laws, codes, rules, and regulations.

Asbestos specific insurance premiums will be reimbursed as the actual and identifiable cost of the portion of the premium attributable to the work under the lump Sum, Fixed Price Item. No overhead or profit will be allowed on asbestos specific insurance premiums. The reimbursement of other insurance premiums shall be as given in this specification and §109-05.

payment will be made under:

15202.1001 M	Removal and Disposal of Asbestos Containing Asphalt Concrete	Square Meters
15202.1002 M	Removal and Disposal of Asbestos Containing Asphalt Concrete (Blanket Variance 8)	Square Meters
15202.1101XX M	Removal and Disposal of Asbestos Containing Asphalt Concrete	Lump Sum, Fixed Price
15202.1102XX M	Removal and Disposal of Asbestos Containing Asphalt Concrete (Blanket Variance 8)	Lump Sum, Fixed Price

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