#### CONFIRMATION OF CALLED INSPECTION RECORDS

2009 International Building Code Called Inspection Records

	Called Inspection Type	Approval to Proceed Date	A/E or Qualified Inspector Signature	ISBE ID Number or A/E License Number
1.	Footing			
2.	Foundation			
3.	Concrete Slab / Under-floor			
4.	Lowest Floor Elevation			
5.	Framing			
6.	Lathe and Gypsum Board			
7.	Fire Resistant Penetrations			
8.	Energy Efficiency			
9.	Special Inspection			
10.	Final IBC			

2009 International Electrical Code (Appendix K) Called Inspection Records

	Called Inspection Type	Approval to Proceed Date	A/E or Qualified Inspector Signature	ISBE ID Number or A/E License Number
1.	Prefabricated Assembly			
	Evaluation Report			
2.	Underground			
3.	Rough-in			
4.	Final IEC			

2009 International Energy Conservation Code Called Inspection Records

	Called Inspection Type	Approval to Proceed Date	A/E or Qualified Inspector Signature	ISBE ID Number or A/E License Number
1.	Foundation (thermal envelope)			
2.	Framing (thermal envelope)			
3.	Insulation (thermal envelope)			
4	Rough-in "Okay to Cover"  (mechanical, service water heating, electrical, lighting)			
5.	Final (mechanical, service water heating, electrical, lighting)			
6.	Final IECC			

2009 International Fire Code Called Inspection Records

	Called Inspection Type	Approval to Proceed Date	A/E or Qualified Inspector Signature	ISBE ID Number or A/E License Number
1.	Final IFC			

2009 International Mechanical and Fuel Gas Code Called Inspection Records

	Called Inspection Type	Approval to Proceed Date	A/E or Qualified Inspector Signature	ISBE ID Number or A/E License Number
1	Prefabricated Assembly			
1.	Evaluation Report			
2.	Underground Piping			
3.	Rough-in			
4.	Final IMC & IFGC			

#### Contractor's Qualification Statement

The Undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading.

SUBMITTED TO:
ADDRESS:
SUBMITTED BY:
NAME:
ADDRESS:
PRINCIPAL OFFICE:
[ ] Corporation
[ ] Partnership
[ ] Individual
[ ] Joint Venture
[ ] Other
NAME OF PROJECT: (if applicable) Sample
TYPE OF WORK: (file separate form for each Classification of Work)
[ ] General Construction
[ ] HVAC
[ ] Electrical
[ ] Plumbing
[ ] Other: (Specify)
§ 1 ORGANIZATION § 1.1 How many years has your organization been in business as a Contractor?
§ 1.2 How many years has your organization been in business under its present business name?
<b>§ 1.2.1</b> Under what other or former names has your organization operated?

#### ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An Additions and Deletions Report that notes added information as well as revisions to the standard form text is available from the author and should be reviewed. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

This form is approved and recommended by the American Institute of Architects (AIA) and The Associated General Contractors of America (AGC) for use in evaluating the qualifications of contractors. No endorsement of the submitting party or verification of the information is made by AIA or AGC.

- § 1.3 If your organization is a corporation, answer the following:
  - § 1.3.1 Date of incorporation:
  - § 1.3.2 State of incorporation:
  - § 1.3.3 President's name:

**User Notes:** 

- § 1.3.4 Vice-president's name(s)

  § 1.3.5 Secretary's name:
  § 1.3.6 Treasurer's name:
- § 1.4 If your organization is a partnership, answer the following:
  - § 1.4.1 Date of organization:
  - § 1.4.2 Type of partnership (if applicable):
  - § 1.4.3 Name(s) of general partner(s)
- § 1.5 If your organization is individually owned, answer the following:
  - § 1.5.1 Date of organization:
  - § 1.5.2 Name of owner:
- § 1.6 If the form of your organization is other than those listed above, describe it and name the principals:
- § 2 LICENSING
- § 2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.
- § 2.2 List jurisdictions in which your organization's partnership or trade name is filed.
- § 3 EXPERIENCE
- § 3.1 List the categories of work that your organization normally performs with its own forces.
- § 3.2 Claims and Suits. (If the answer to any of the questions below is yes, please attach details.) § 3.2.1 Has your organization ever failed to complete any work awarded to it?
  - § 3.2.2 Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers?
  - § 3.2.3 Has your organization filed any law suits or requested arbitration with regard to construction contracts within the last five years?
- § 3.3 Within the last five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? (If the answer is yes, please attach details.)

§ 3.4 On a separate sheet, list major construction projects your organization has in progress, giving the name of project, owner, architect, contract amount, percent complete and scheduled completion date.
§ 3.4.1 State total worth of work in progress and under contract:
§ 3.5 On a separate sheet, list the major projects your organization has completed in the past five years, giving the name of project, owner, architect, contract amount, date of completion and percentage of the cost of the work performed with your own forces.
§ 3.5.1 State average annual amount of construction work performed during the past five years:
§ 3.6 On a separate sheet, list the construction experience and present commitments of the key individuals of your organization.
§ 4 REFERENCES § 4.1 Trade References:
§ 4.2 Bank References:
§ 4.3 Surety: § 4.3.1 Name of bonding company:
§ 4.3.2 Name and address of agent:
§ 5 FINANCING § 5.1 Financial Statement. § 5.1.1 Attach a financial statement, preferably audited, including your organization's latest balance sheet and income statement showing the following items:
Current Assets (e.g., cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory and prepaid expenses);
Net Fixed Assets;

Other Assets;

Current Liabilities (e.g., accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries and accrued payroll taxes);

Other Liabilities (e.g., capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings).

- § 5.1.2 Name and address of firm preparing attached financial statement, and date thereof:
- § 5.1.3 Is the attached financial statement for the identical organization named on page one?
- § 5.1.4 If not, explain the relationship and financial responsibility of the organization whose financial statement is provided (e.g., parent-subsidiary).
- § 5.2 Will the organization whose financial statement is attached act as guarantor of the contract for construction?
- § 6 SIGNATURE
- § 6.1 Dated at this day of

Name of Organization:

By:

Title:

§ 6.2

M being duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading.

Subscribed and sworn before me this day of

Notary Public:

My Commission Expires:



# **Standard Form of Agreement Between Owner and Contractor** where the basis of payment is a Stipulated Sum

AGREEMENT made as of the day of in the year 20
BETWEEN the Owner:
Board of Education of Rockford School District No.205 Winnebago and Boone Counties, Illinois 501 7th Street Rockford, Illinois 61104
and the Contractor: (Paragraphs deleted)
for the following Project:
Bid No.
The Architect:
Program Manager:
The Owner and Contractor agree as follows.
Owner is an Illinois public school district. This Contract is the result of the award of a

Owner is an Illinois public school district. This Contract is the result of the award of a publicly bid contract pursuant to the provisions of the Illinois School Code pertaining to public contracts, particularly the provisions of 105 ILCS 5/10-20.21. The invitation to bid No.

, all amendments thereof and Contractor's bid all form a part of this Contract. The terms of Illinois statutes applicable hereto shall govern all terms and conditions of this contract as though fully set forth herein.

#### TABLE OF ARTICLES

- 1 THE CONTRACT DOCUMENTS
- 2 THE WORK OF THIS CONTRACT
- 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
- 4 CONTRACT SUM
- 5 PAYMENTS
- 6 DISPUTE RESOLUTION
- 7 TERMINATION OR SUSPENSION
- 8 MISCELLANEOUS PROVISIONS
- 9 ENUMERATION OF CONTRACT DOCUMENTS
- 10 INSURANCE AND BONDS

#### ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary and other Conditions) AIA Document A201-2007, as revised by Owner, Drawings, Specifications, Addenda issued prior to execution of this Agreement with Bid No. , other documents listed in this Agreement and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

#### ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

## ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION § 3.1

The Work is comprised of multiple dates of commencement of the Work. The construction start date, substantial completion date and final completion date are as follows:

Construction start date: Substantial completion date:	
Final Completion date:	
§ 3.2 The Contract Time shall be measured from the date of commence	ment.

#### ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum consistent with the award of a public bid # awarded by Owner to Contractor shall be the total contract sum of

) subject to additions and deductions as provided in the Contract Documents.

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§ 4.2 The Contract Sum is based upon the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Owner:

#### § 4.3 Unit prices, if

any, including all associated costs including, but not limited to, excavation, backfilling offsite transportation/site fee, labor, overhead, insurance and bond:

§ 4.4 Allowances included in the Contract Sum, if any:

#### ARTICLE 5 PAYMENTS

#### § 5.1 PAYMENTS

- § 5.1.1 Based upon Applications for Payment submitted to and approved by the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make payments on account of the Contract Sum to the Contractor pursuant to its policies and procedures more fully explained in the Addendum attached hereto and made a part hereof marked Exhibit A, and as provided elsewhere in the Contract Documents.
- § 5.1.2 Contractor shall submit to the Architect not more than one Application for Payment per month. The payment may cover a time period up to and including the date of submission of the draft Application for Payment. Contractor shall submit a draft Application for Payment on or before the date established by Program Manager. A supplemental Application for Payment may be required at the end of Owner's School Year (June 30).
- § 5.1.3 Payments to Contractor shall be pursuant to the policies and procedures of Owner as set forth in Addendum Exhibit A attached.
- § 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form and supported by such data to substantiate its accuracy as the Architect may require. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment.
- § 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.
- § 5.1.6 Subject to other provisions of the Contract Documents, the amount of each payment shall be the amount of Architect approved certificate for payment computed as follows:
  - Take that portion of the Contract Sum properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the Contract Sum allocated to that portion of the Work in the schedule of values, less retainage of TEN percent (10.00%). Pending final determination of cost to the Owner of changes in the Work, amounts not in dispute shall be included as provided in Section 7.3.9 of AIA Document A201<sup>TM</sup>—2007, General Conditions of the Contract for Construction as revised by Owner;
  - .2 Subtract the aggregate of previous payments made by the Owner.
- § 5.1.7 The payment amount determined in accordance with Section 5.1.6 shall be further modified under the following circumstances:
  - .1 Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to the full amount of the Contract Sum, less such amounts as the Architect shall determine for incomplete Work, retainage applicable to such work and unsettled

claims

§ 5.1.8 Reduction or limitation of retainage, if any, shall be as follows:

#### NONE

#### § 5.2 FINAL PAYMENT

- § 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when
  - .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Section 12.2.2 of AIA Document A201-2007, as revised by Owner, and to satisfy other requirements, if any, which extend beyond final payment; and
  - .2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

In accordance with Owners policies and procedures for payment as described in the Addendum Exhibit A attached hereto.

## ARTICLE 6 DISPUTE RESOLUTION § 6.1 INITIAL DECISION MAKER

The Architect will serve as Initial Decision Maker pursuant to Section 15.2 of AIA Document

A201-2007 as revised by Owner.

#### § 6.2 BINDING DISPUTE RESOLUTION

For any Claim subject to, but not resolved by, mediation pursuant to Section 15.3 of AIA Document A201–2007, as revised by Owner, the method of binding dispute resolution shall be as follows:

Owner and Contractor may but shall not be required to submit claims to arbitration or mediation. If Owner and Contractor each independently agree to mediation or arbitration of claims, such mediation and arbitration shall proceed according to the provisions of AIA Document A201-2007 as revised by Owner. Mediation or arbitration may be requested by either party in writing. If the responding party declines to mediate or arbitrate or fails to respond to the request within 7 days of receipt of a request the sole remedy and method of dispute resolution for such claim shall be litigation in a court of competent

jurisdiction. Jurisdiction for purposes of this Agreement and all parties hereto shall be the laws of the State of Illinois and venue shall lie in the 17<sup>th</sup> Judicial Circuit Court, Winnebago County, Illinois.

#### ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2007 as revised by Owner.

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2007 as revised by Owner.

#### ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2007 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents; however, in the case of AIA Document A201-2007, it shall refer to AIA Document A201-2007 as revised by Owner and attached as Exhibit B.

§ 8.2 The Owner's representative:

Todd-Schmidt Chief of Operations Rockford Public Schools 501 Seventh Street Rockford, Illinois 61104

§ 8.3 The

User Notes:

Contractor's representative:

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#### § 8.4

Neither the Owner's nor the Contractor's representative shall be changed without ten days written notice to the other party.

#### § 8.5 Other provisions:

If Owner has contracted with a Program Manager for this project, in all cases in which notices are required or permitted to be given by Contractor, a copy of each such notice shall be simultaneously given to Program Manager.

Program Manager:

#### ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

- § 9.1 The Contract Documents, except for Modifications issued after execution of this Agreement are enumerated in the sections below.
- § 9.1.1 The Agreement is this executed AIA Document A101-2007, Standard Form of Agreement Between Owner and Contractor as revised by Owner.
- § 9.1.2 The General Conditions are AIA Document A201–2007 as revised by Owner and attached hereto marked Exhibit B, General Conditions of the Contract for Construction and Supplementary Conditions attached to Bid 14-52.
- § 9.1.3 The Supplementary and other Conditions of the Contract:

As contained in the Invitation to Bid # and as attached hereto marked Exhibit C.

§ 9.1.4 The Specifications:

As set forth in invitation to bid # and addenda thereto attached hereto as Exhibit C and D.

§ 9.1.5 The Drawings:

As set forth in invitation to bid # and addenda thereto attached hereto as Exhibit C and D.

§ 9.1.6 The Addenda, if any:

As set forth and referenced in the document attached hereto marked Exhibit D.

- § 9.1.7 Documents forming the Contract Documents:
- The Addendum attached hereto marked Exhibit A
- General Conditions attached hereto marked as Exhibit B.
- Bid No. issued by Owner attached as Exhibit C (compact disk).

lnit.

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4. Addenda to Bid

as referenced and attached as Exhibit D (compact disk).

Contractor's bid dated

attached hereto as Exhibit E.

#### ARTICLE 10 INSURANCE AND BONDS

The Contractor shall purchase and maintain insurance and provide bonds as set forth in Article 11 of AIA Document A201–2007, as revised by Owner and attached hereto and including the Supplementary Conditions issued by Owner.

This Agreement entered into as of the day and year first written above.

OWNER:		CONTRACTOR:	
SCHOOL DIST	DUCATION OF ROCKFORD RICT NO. 205, WINNEBAGO COUNTIES, ILLINOIS		
BY:		BY:	
ITS PRESIDENT		ITS PRESIDENT	
ATTEST:		ATTEST:	
	SECRETARY	ITS SECRETARY	



#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.			
terms and conditions of the policy, certain policies may require an end	olicy(les) must be endorsed. If SUBROGATION IS WAIVED, subject to the lorsement. A statement on this certificate does not confer rights to the		
certificate holder in lieu of such endorsement(s). PRODUCER	CONTACT		
PRODUCER	NAME: PHONE FAX		
	(A/C, No.): E-MAIL		
	ADDRESS:		
	INSURER(S) AFFORDING COVERAGE NAIC #		
INSURED	INSURER A :		
	INSURER B:		
· · · · · · · · · · · · · · · · · · ·	INSURER C:		
•	INSURER D:		
	INSURER E :		
COVERAGES CERTIFICATE NUMBER:	INSURER F: REVISION NUMBER:		
<del> </del>	VE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD		
INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORD EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE	OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS DED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, BEEN REDUCED BY PAID CLAIMS.		
INSR TYPE OF INSURANCE INSR: WVD POLICY NUMBER	POLICY EFF POLICY EXP (MM/DD/YYYY) (MM/DD/YYYY) LIMITS		
GENERAL LIABILITY	EACH OCCURRENCE \$		
COMMERCIAL GENERAL LIABILITY	DAMAGE TO RENTED PREMISES (Ea occurrence)  S		
CLAIMS-MADE OCCUR	MED EXP (Any one person) \$		
	PERSONAL & ADV INJURY \$		
	GENERAL AGGREGATE \$		
GEN'L AGGREGATE LIMIT APPLIES PER.	PRODUCTS - COMP/OP AGG   5		
POLICY PRO- LOC	s		
AUTOMOBILE LIBERT STILLING TO THE STILLING TO	COMBINEO SINGLE LIMIT (Ea accident) \$		
ANY AUTO	BODILY INJURY (Per person) S		
ALL OWNED SCHEDULED	BODILY INJURY (Per accident) \$		
AUTOS AUTOS NON-OWNED AUTOS AUTOS	PROPERTY DAMAGE "		
HIRED AUTOS AUTOS	(Per accident) 5		
UMBRELLA LIAB OCCUR	EACH OCCURRENCE \$		
EXCESS LIAB CLAIMS-MADE	AGGREGATE \$		
DED RETENTIONS	\$		
WORKERS COMPENSATION	WC STATU- OTH-		
AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE	TORY LIMITS   LER   EL EACH ACCIDENT   S		
OFFICE/MEMBER EXCLUDED?   N/A	E.L. DISEASE - EA EMPLOYEE'S		
(Mandatory in NH) If yes, describe under	E.L. DISEASE - POLICY LIMIT   \$		
DESCRIPTION OF OPERATIONS below	EL DISCASE POLICILIMITY		
	;		
DESCRIPTION OF OPERATIONS II OCATIONS (VEHICLES (Attach ACORD 10) Additional Persons	Schadule If mare enace is marripart		
DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks	ooneane's more shace is leddined?		
CERTIFICATE HOLDER	CANCELLATION		
	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE		
Rockford Public School District 205	THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN		
Attn: Jim Heathscott	ACCORDANCE WITH THE POLICY PROVISIONS.		
501 Seventh Street			
	AUTHORIZED REPRESENTATIVE		
Rockford, IL 61104			
1			

### ASBESTOS ABATEMENT PROJECT MANUAL FAIRVIEW ELEMENTARY SCHOOL HVAC AND WINDOW RENOVATIONS SUMMER 2017

**FOR:** Rockford Public Schools 501 7<sup>th</sup> Street Rockford, Illinois 61104

AT: Fairview Elementary School 512 Fairview Avenue Rockford, Illinois 61108

PROJECT: Asbestos Abatement - HVAC and Window Renovations - Summer 2017

#### **ENVIRONMENTAL CONSULTANT:**

CARNOW, CONIBEAR & ASSOC., LTD. Project A139670092 600 W. Van Buren Street, Suite 500 Chicago, IL 60607 (312) 762.2900 (312) 782-5145 (fax)

Prepared by:	
John M. Dobby, CIH	
Project Designer IDPH #100-09261	

March 27, 2017



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Carnow Conibear Project No.:A139670092



### **SPECIFICATION SECTION 02131**

# ASBESTOS ABATEMENT FOR INTERIOR SCHOOL AREAS

Carnow Conibear Project No.:A139670092

**CARNOW CONIBEAR** 

#### SECTION 02131 - ASBESTOS ABATEMENT FOR INTERIOR SCHOOL AREAS

#### PART 1 - GENERAL

1.1 Introduction: Asbestos abatement in interior building spaces, covered walkways or porticos connecting buildings, and on outdoor mechanical systems which condition indoor air (such as air handling units, air conditioners, cooling towers, etc.) is governed by rules established by the Illinois Department of Public Health (IDPH). This specification section addresses or references the requirements for complying with IDPH, OSHA, and EPA NESHAP asbestos rules. Each and every rule requirement may not be restated in detail since trained, accredited, and licensed contractors and individuals are required for this work and are presumed to be familiar with the relevant laws and rules. Full regulatory compliance is required, and is a part of the contract, whether specifically stated herein or not.

Exterior building spaces are not subject to IDPH rules unless the abatement procedures involve interior spaces of the building. Roofing, window replacement, exterior transite sheeting, asbestos siding, asbestos-containing paint, caulking, glazing, flashings, cements, or other products installed on the building exterior are subject to OSHA and NESHAP rules which, in many cases are less rigorous than IDPH requirements. Abatement of these items is specified in separate, related specification sections.

- 1.2 Definitions: In addition to the terms listed below, all definitions in the laws and regulations listed in Section 1.5 are incorporated by reference, whether or not restated herein.
  - A. Abatement Contractor (AC) means the entity responsible for performing the work in this section and has the training and accreditation to competently perform the work. This entity will obtain and maintain licenses required for the indoor work in this section.
  - B. Asbestos Abatement Supervisor, hereinafter referred to as "supervisor" means a person retained by the AC, who supervises asbestos abatement workers. This person must be trained, accredited, and licensed as required, and must also meet OSHA "competent person" criteria for asbestos abatement.
  - C. Asbestos Project Manager (APM) is the individual that performs asbestos abatement project oversight, acts on behalf of the Rockford Public Schools or its agents on the project, and performs "Project Manager" duties as defined by IDPH asbestos regulations.
  - D. Rockford Public Schools means the owner of the property and the authority ordering the work specified herein.
  - E. HEPA Filter means a High Efficiency Particulate Air filter capable of trapping 99.97% percent of particles greater than 0.3 micrometers in mass median aerodynamic equivalent diameter.
  - F. IDPH means the Illinois Department of Public Health.
  - G. Carnow Conibear & Assoc., Ltd. means the entity with overall responsibility for the

- environmental aspects of the project, including design, organization, direction, and control as well as investigations, assessments, and supervision of project managers.
- H. Plasticize means to apply plastic sheeting over surfaces or objects to protect them from contamination or water damage.
- PPE (Personal Protection Equipment) means the protective suits, head and foot covers, gloves, respirators and other items used to protect persons from asbestos or other hazards.
- J. RCRA means the Resource Conservation and Recovery Act and associated regulations.
- K. SDS means Safety Data Sheet, required by OSHA for any chemicals in the workplace that that could be expected to cause an exposure to workers during normal use or in emergency situations.
- L. TCLP means the Toxicity Characteristic Leaching Procedure as specified in EPA 530/SW-846, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods 3rd edition, November 1986.
- M. Work Area means the area or areas where asbestos abatement is being conducted.
- 1.3 Scope of Work: Refer to Environmental Scope of Work Drawings included in Appendix B.

#### 1.4 Work Included

- A. The work includes all labor, equipment, materials, and supplies necessary to perform the Scope of work in the Documents by the procedures described herein. The contractor, by submitting a bid for the work, represents itself as knowledgeable and expert in the performance of the work, and includes all things usually and customarily necessary to provide a complete and finished job, whether specifically mentioned or not.
- B. Removal of friable and non-friable asbestos-containing materials listed in the Documents, including pre-cleaning, moving of furnishings, establishing regulated areas, isolating the work areas, protection of adjacent areas, containment when required, cleanup and decontamination to the specified clearance levels, proper packaging and disposal of wastes, and all other steps necessary to complete the scope of work.
- C. Repair or replacement of damaged surfaces, fixtures, or furnishings to restore them to their pre-existing condition to the satisfaction of the Project Manager.
- D. When the Documents include lead and asbestos abatement items in the same spaces, they should be performed in the sequence and combinations that produce the most efficient results, minimize concentrated lead waste volume, and produce the least amount of total waste. That sequence will generally be:
  - 1. Cleanup of lead dust, flakes, chips, and residues most likely to fail a TCLP test. If

- both lead and asbestos debris are present and mixed together, they may be cleaned up and disposed together.
- 2. Cleanup and removal of failed or delaminated friable asbestos-containing debris, if any.
- 3. Removal of friable asbestos materials and cleanup of visible residues.
- 4. Removal of lead-bearing architectural components.
- 5. Removal of non-friable asbestos items. If both asbestos and lead are on the same components, for example lead paint and asbestos-containing glazing compound, the components may be removed and disposed with both the lead and asbestos-bearing items intact.
- 6. Removal of lead-based paint, coatings, or surfacing material.
- 7. Final cleanup and decontamination of the work space. Final air clearance (asbestos) and wipe samples (lead) may be performed concurrently.
- 8. When lead and asbestos final decontamination processes are combined, the more stringent cleanup procedures will apply for both.
- 9. Waste disposal.
  - a. <u>Hazardous waste</u>: loose paint flakes, chips, and dust; lead-specific cleaning supplies; contaminated soil; combined final decontamination supplies; disposable suits, gloves, head covers, and foot covers; other items that fail a TCLP or other RCRA test.
  - b. <u>Special waste</u>: friable asbestos-containing waste materials and lead-contaminated waste that has passed TCLP or other RCRA tests.
  - c. <u>Construction and demolition (C&D) debris</u>: lead-bearing architectural components; concrete and lumber with or without tile or mastic attached; demolition debris, and other general wastes.
  - d. All asbestos-containing or lead-bearing wastes, regardless of classification, shall be disposed in a landfill approved by the IEPA to accept asbestos-containing or lead-bearing waste materials.
- E. Compliance with all applicable laws, regulations, standards, and these specifications. In the case of a conflict, the contractor will comply with the most stringent.
- F. Contractor is required to fully comply with IDPH rules and these specifications unless a variance is granted by IDPH. Any variances obtained by Carnow Conibear will be listed in the Documents.
- G. All licenses, accreditations, permits, fees, notifications, reports, or other documents required by law, regulation, this specification, or the Documents.
- H. Provide project closeout documentation to the APM within thirty (30) days after final clearance. This documentation shall include, but is not limited to, items listed in paragraph 1-7, Submittals.

#### 1.5 Laws, Regulations and Standards

- A. The following laws, regulations, and standards are incorporated by reference:
  - 1. 105 ILCS 105: Illinois Asbestos Abatement Act
  - 2. 77 III. Adm. Code 855: Asbestos Abatement for Public and Private Schools and

- Commercial and Private Buildings in Illinois
- 3. 29 CFR 1910: US OSHA General Industry Standards
- 4. 29 CFR 1926: US OSHA Construction Standards
- 5. 29 CFR 1926.1101: US OSHA Asbestos Construction Standards
- 6. ASHARA: US EPA Asbestos School Hazard Abatement Reauthorization Act
- 7. 40 CFR Part 61: US EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP), 11/90 revision
- 8. 40 CFR 763 Subpart E: US EPA Asbestos Hazard Emergency Response Act (AHERA) Rules
- 40 CFR 763 Subpart E: US EPA Asbestos Model Accreditation Plan (MAP): Appendix C -Interim Final Rule

#### 1.6 Assessment, Monitoring, Testing and Analysis

- A. Carnow Conibear will perform inspection, testing and design services prior to the start of work, and during the project, and will perform testing, inspection, and monitoring services during the work and upon its completion:
  - 1. Prior to the start of the work
    - Carnow Conibear shall identify suspect materials and confirm their asbestos content through review of the school's historical documentation, management plan or by testing.
    - b. Carnow Conibear will design the project and address any design changes if requested by the Owner.
    - Carnow Conibear shall collect background air samples (as necessary) before conditions are disturbed. Background samples will be analyzed by PCM.
    - d. Review and approve the pre-abatement submittals submitted by the AC.
  - 2. During the work, Carnow Conibear shall:
    - a. Enter the work area at least every two hours to inspect the work procedures and work area integrity.
    - b. Maintain a daily log to record the day's events, problems, corrective actions.
    - c. Collect air samples inside and outside the work area, and in the breathing zone of representative persons.
    - d. Carnow Conibear will stop the work if airborne asbestos concentrations outside the work area exceed 0.01 f/cc. The work may restart when the source of fiber release has been identified and corrected. Contractor will be responsible for cleaning and decontaminating the outside area if caused by the asbestos abatement activities.
    - e. Observe/document smoke testing of the containment by the contractor.
    - f. Review original worker licenses and maintain weekly submittals from the AC.
    - g. Notify Carnow Conibear's project designer if design changes are needed before execution.
  - 3. Upon completion of the work, Carnow Conibear shall:

- Inspect for visible debris. Contractor shall be required to re-clean the area or portions of areas until no visible debris remains and the work area is dry.
- Perform aggressive clearance testing by Transmission Electron b. Microscopy (TEM) when the ACM in a work area is 260 linear feet, 160 square feet, or 35 cubic feet of volume or more, as required by AHERA and IDPH Section 855.170. The sample set shall include at least 5 inside samples, 5 outside samples, 2 field blanks and 1 sealed blank. Note: Large complicated, or multi-floor contiguous work areas connected by corridors, stairways, or other connections shall be tested using additional inside the work area samples. For clearance of multiple mini containments containing a total removal quantity greater then 160 square feet or 260 linear feet, a combined PCM/TEM final clearance procedure may be used. The first part of the procedure shall involve the collection and analysis of one PCM sample from within each mini containment. The second part shall involve the collection and analysis of five (5) TEM samples within the mini containments having the highest PCM analysis results. If there are five or fewer mini containments to be sampled, then only TEM sampling shall be conducted. A minimum of five (5) TEM samples shall be collected. All requirements of 40 CFR 763 Subpart E, Appendix A shall apply.
- c. Perform aggressive clearance testing by Phase Contrast Microscopy (PCM) when the ACM in a work area is less than 260 linear feet, 160 square feet, or 35 cubic feet of volume.
- d. Collect and analyze samples in accordance with AHERA Appendix A procedures and IDPH rule section 855.470.
- e. Prepare and submit the IDPH "Project Manager's Summary Report Form" within 10 days of final clearance.
- f. Prepare and submit the Project Manager Report to the IDPH within 60 working days of clearance testing. The final Project Manager is responsible for completion of the project report.
- B. The Contractor shall provide OSHA compliance air monitoring to determine exposures to its employees in accordance with OSHA 29 CFR 1926.1101. Frequency of testing will comply with OSHA requirements for the anticipated and actual exposure levels.
  - A written Exposure Assessment may be provided prior to the start of the work to determine the requirements for respiratory protection and frequency of OSHA monitoring for each type of activity. The contractor should note that a Negative Exposure Assessment (NEA) may be possible for many tasks. For interior work, this would allow reduced OSHA monitoring frequency.
  - 2. Analysis may be performed on site.
- C. Credentials required for testing and analysis of PCM final clearance air samples:
  - 1. Accreditation by AIHA or AAR; or
  - 2. Participation in the Proficiency Analytical Testing (PAT) program.
  - 3. Certification of individual qualification to read samples on site when on site analysis is performed.

#### 1.7 Submittals by the Contractor

- A. To IDPH, IEPA (If Applicable), and Carnow Conibear at least 10 working days before commencement of work:
  - 1. Asbestos Notification on current form, including inspector license number and landfill permit number.
  - 2. Written permission from building owner authorizing contractor to commence abatement.
  - 3. Building owner asbestos abatement notification to building occupants and users.
- B. To Carnow Conibear at least five days prior to commencement of Work:
  - 1. Documentation of arrangements of transport and disposal, landfill name and location, handling procedures and PPE at the landfill, prepared and signed by the landfill.
  - 2. Drawings or sketches for layout and construction of isolation barriers and decontamination units.
  - 3. Respirators: NIOSH approvals and manufacturer certification of HEPA filtration for cartridges
  - 4. Manufacturers' certifications that all HEPA vacuums, negative air pressure equipment, and other local exhaust ventilation equipment conform to ANSI Z9.2-79
  - 5. Written notifications to rental companies for any rental equipment used.
  - 6. Results of any performance tests for encapsulants, if applicable.
  - 7. OSHA Exposure Assessment, if available.
  - 8. Laboratory and analyst credentials for contractor OSHA samples.
  - 9. Safety Data Sheets (SDS) for chemicals used on site.
  - 10. Work Plan and Schedule.
- C. To Carnow Conibear on the first day of abatement work:
  - 1. Original contractor, supervisor, and worker licenses along with a copy each.
  - 2. Initial Course Accreditation and current refresher accreditation for each supervisor and worker.
  - 2. Physician's Written Opinions for workers and supervisors.
  - 3. Fit test documentation for all employees, agents.
- D. To Carnow Conibear weekly (or as necessary) during the abatement work:
  - 1. Job progress reports detailing abatement activities, progress compared to schedule, problems and actions taken, injury reports, and equipment breakdowns.
  - 2. Waste Shipment Records.
  - 3. Work site Entry logs.
  - 4. Manometer readable tape for negative pressure differentials for each negative pressure worker enclosure or a log of digital readout.
  - 5. Filter Change logs for respirators, HEPA vacuums, negative air machines, and other engineering controls.
  - 6. OSHA compliance air monitoring data.
  - 7. Worker license and certification log.

E. Prior to beginning work, the AC shall submit required notifications to applicable regulatory agencies and receive an Owners Authorization and Notice to Occupants from Rockford Public Schools for buildings where asbestos abatement will take place. The AC will provide copies of all regulatory notices to Carnow Conibear for review prior to sending such notices to each regulatory authority. The AC shall not begin a project until such notices are provided to Rockford Public Schools and/or Carnow Conibear.

#### PART 2 - PRODUCTS

2.1 Tools and Equipment: All tools and equipment shall at least conform to minimum industry standards and IDPH regulations.

#### A. Equipment:

- 1. Negative Air Machines shall provide HEPA filtration and conform to ANSI Z9.2 fabrication criteria.
- 2. Respirators shall be NIOSH approved for use with lead, asbestos, or other contaminants anticipated in the work.
- 3. Contractor is fully responsible for complying with OSHA rules for other Safety equipment, such as hard hats, safety harnesses, eye protection, gloves, footwear, and any other safety devices used on the site.
- 4. Pressure differential manometer with readable tape shall be provided by the contractor, including calibration documentation.

#### B. Tools:

- 1. Shovels and scoops shall be rubber or plastic, suitable for use in a plasticized containment. Metal shovels are not permitted.
- 2. Scrapers, brushes, utility knives and other hand tools shall be of good quality and suitable for the intended uses. The contractor shall keep an ample supply on hand for the completion of the work.
- 3. Power tools such as, but not limited to saws, pneumatic chisels, brushes, sanders, and needle guns shall be equipped with shrouds and HEPA-filtered local exhaust systems to capture released particles.
- 4. Buffers are not permitted.
- 2.2 Materials: All materials shall at least conform to minimum industry standards and IDPH regulations.
  - A. Installed materials which become a part of the work such as, but not limited to, encapsulants shall be of good quality, non-lead-bearing, free of asbestos, and conform to the respective reinstallation specification sections prepared by others.
    - 1. Contractor shall ensure that encapsulants and sealants used as primers, basecoats, or covering existing materials are compatible with the respective existing or reinstallation materials and their manufacturers' warranties.
    - 2. Encapsulants for surfaces to which fireproofing will be applied (beams, columns, floor or roof decks, other structural members) shall be tested and rated as a

component of the fireproofing system and listed in the UL Fire Resistance Directory with the specific fireproofing material to be installed.

#### B. Abatement materials

- 1. Fire-retardant Poly sheeting for all applications shall be 6 mil nominal thickness for critical seals, floors, ceilings and drop cloths, and 4 mil for walls.
- 2. Tape shall be 2" or 3" duct tape or other waterproof tape suitable for joining poly seams and attaching poly sheeting to surfaces.
- 3. Spray adhesives shall be non-flammable and free of methylene chloride solvents.
- 4. Disposal bags shall be 6 mil.
- 5. Disposable suits, hoods, and foot coverings shall be TYVEK or similar.
- 6. Solvents shall be compatible with any primers, mastics, adhesives, paints, coatings, or other surfacing materials to be installed following their use.

#### PART 3 - EXECUTION

#### 3.1 Employee Training, Qualification and Medical Screening

- A. Supervisors and Workers shall be trained, accredited, and licensed in accordance with IDPH rules.
  - 1. Contractor shall keep copies of licenses and most recent annual refresher training certificate at the jobsite at all times for all contractor personnel.
  - 2. An IDPH- licensed supervisor (competent person) shall be present at the worksite at all times when work under this section is being conducted.
  - Current fit testing documentation.
- B. Medical Screening. All contractor personnel shall have a current medical examination in accordance with OSHA requirements. Copies of the Physician's Written Opinions shall be kept on site.

#### 3.2 Permissible Exposure Limits

- A. The OSHA permissible exposure limit (PEL) for worker exposure to airborne asbestos is 0.1 f/cc as an 8-hour time-weighted average (TWA).
- B. The OSHA short term excursion limit for worker exposure to airborne asbestos is 1.0 f/cc for a 30 minute sample.
- C. The permissible level of airborne fibers in areas adjacent to the work area is 0.01 f/cc or background level, whichever is higher, as determined by phase contrast microscopy (PCM).
  - 1. Work shall immediately cease in any work area where the airborne fiber concentrations exceed this level.

- 2. The source of outside contamination shall be determined, and corrective measures (e.g. wet cleaning, changes in work practices, negative pressure containment) will be implemented to prevent recurrence.
- 3. The contractor shall be responsible for cleanup of contamination in adjacent areas caused by the asbestos abatement activities at no additional cost to the building owner.

#### 3.3 Exposure Assessment and Monitoring

- A. The Contractor shall make an assessment of the airborne exposures. Assessment shall conform to OSHA requirements and may be based upon:
  - 1. Initial monitoring of representative workers who the contractor believes are exposed to the greatest airborne concentrations of asbestos, or
  - 2. Past monitoring (within the past 12 months) or objective data for conditions closely resembling the processes, type of material, control methods, work practices and environmental conditions to be used for this project, or
  - 3. In the absence of an exposure assessment, the contractor shall perform the work in full negative pressure containment with Type C pressure-demand respirator with auxiliary SCBA escape bottle.
- B. The contractor shall perform personal monitoring in accordance with the following requirements:
  - 1. Initially, to establish an exposure assessment when past monitoring or objective data are not available for an initial determination.
  - 2. Periodically if the exposures are, or are expected to be, below the PEL.
    - a. Whenever there has been a change of equipment, process, control, personnel, or a new task has been initiated that may affect employee exposures, the exposure assessment shall be updated, and monitoring shall be reinstituted if exposures are unknown or are expected to exceed the PEL.
  - 3. Daily, if exposures are above the PEL.

#### 3.4 Respiratory Protection

- A. Respiratory protection shall be worn by all persons potentially exposed to airborne asbestos fibers from the start of the abatement project until all areas have passed clearance air monitoring, in accordance with all applicable regulations incorporated by reference in 1.5 A.
- B. Contractors must have a respiratory protection program in compliance with all applicable regulations incorporated by reference in 1.5 A.

#### 3.5 Hygiene Practices

- A. Eating, drinking, smoking, chewing gum or tobacco, and applying of cosmetics are not allowed in the work area.
- B. All persons entering the work area are required to wear appropriate PPE, and follow the entry and exit procedures posted in the Personnel Decontamination Enclosure System.
- C. Personal Protection Equipment (PPE) shall include:
  - 1. Full body disposable suits, headgear, and footwear.
  - 2. Gloves.
  - 3. Safety glasses
  - 4. Hardhats.
  - 5. Non-disposable footwear and clothing shall remain in the work area and shall be disposed of as contaminated waste when the job is completed.
  - 6. Authorized visitors shall be provided with suitable PPE.

#### 3.6 Prohibited Activities

- A. Dry removal or dry sweeping.
- B. Use of compressed air for cleaning.
- C. Use of high speed power tools not equipped with a HEPA-filtered local exhaust system.
- D. The abatement contractor shall not execute abatement activities without asbestos abatement design drawings that have been signed by an IDPH licensed Asbestos Designer are on the job site. Any and all changes to containment layout and placement shall not be executed until revised design drawings that have been approved and signed by an IDPH licensed Asbestos Designer are on the job site.
- E. Buffers cannot be used to remove mastic.

#### 3.7 Work Area Isolation and Preparation

- A. General Preparation. Contractor shall:
  - 1. Post:
    - Caution signs meeting the specifications of OSHA 29 CFR 1926.1101
       (k)(6) at any location and approaches to a location where airborne concentrations of asbestos may exceed ambient background levels.
    - b. Decontamination and work procedures in equipment rooms and clean rooms.
    - c. EPA NESHAP asbestos rules (40 CFR Part 61, subparts A & M) in the clean room.
    - d. OSHA Asbestos Construction Standards (29 CFR 1926.1101) in the clean room.
    - e. Entry and Exit Log

- f. List of telephone numbers in the clean room for:
  - 1) local hospital and/or local emergency squad.
  - 2) school security office (if applicable).
  - 3) owner representative reachable 24 hours per day.
  - 4) contractor's headquarters.
  - 5) architects or consultants directly involved in the project.
- 2. Secure the work area from entry by unauthorized persons.
- 3. Separate Work Areas from Occupied Areas
  - a. Seal off all doorways and corridors which will not be used for passage during work.
  - b. Install IDPH required separation barriers per section 855.430 (a) in all openings larger than 4 ft by 8 ft, consisting of wood or metal framing, a sheathing material such as plywood or drywall at least 5/8" thick on the work side, and double-layer 6-mil poly, both sides. Edges shall be caulked at the floor, ceiling, walls, and fixtures to form an air-tight seal.
  - c. If the school is not totally occupied (see Section 855.430), the sheathing material may be omitted.
- 4. Separate occupied areas from secured areas
  - a. Install IDPH barriers per section 855.430 (b)

#### B. Interior Preparation.

- 1. Shut down and lock out electric power to all work areas. Provide temporary power from an outside source with ground-fault circuit interrupter (GFCI) at the source.
- 2. Shut down and isolate heating, cooling, and ventilating air systems. Remove HVAC filters, package and dispose as asbestos waste. (Need to discuss filter removal and disposal in light of replacement costs and clarify that this applies when work happens in a mech system and not in classrooms)
- 3. Pre-clean movable objects with HEPA vacuums or wet cleaning and remove from the work area to a location designated by the EC *or Owner where friable ACBM is involved.*
- 4. Pre-clean fixed items which must remain in the work area with HEPA vacuums or wet cleaning where friable ACBM is involved.
- Wrap all fixed objects and equipment which will remain in the work area with a minimum of one layer of six mil poly.
- 6. Remove/protect carpeting per environmental scope sheets.
- 7. Pre-clean the work area with HEPA vacuums or wet cleaning.
- 8. Seal off all windows, corridors, doorways, skylights, ducts, grilles, diffusers, and other penetrations or openings in walls, ceilings and floors with 6-mil poly and tape.
- 9. Cover floors with two layers of fire-retardant 6-mil poly with seams staggered and taped, and extending 12" up walls. Cover walls with two layers of 4-mil poly, with each wall poly overlapping each floor poly layers by 12".
- 10. Asbestos materials shall not be disturbed during the preparation phase.
- 11. Suspended ceilings shall remain in place until preparation phase is complete. Remove/protect ceiling tile per environmental scope sheets.
- 12. Maintain emergency and fire exits.

- 13. Install a five chamber Worker Decontamination Enclosure System, consisting of clean room, shower room, and dirty room separated by airlocks at least 3' wide, all with curtained doorways, of sufficient size to serve the size of the crew, and with all features required by IDPH rules.
  - a. Where a remote decon unit is used (i.e. non-friable ACBM and TSI glovebag operations), the AC shall:
    - 1) set up the decon unit within the work area barriers
    - 2) establish a negative pressure of at least 0.02" water column (wc) between the dirty room and adjacent spaces, including the clean room
    - 3) provide at least 4 air changes per hour within the decon unit
    - 4) use a double suiting procedure where the workers proceed to the work area exit, HEPA-vacuum gross debris from their persons using a "buddy system" put on a clean suit (either over their dirty suit or after removing the dirty suit), assure that their footwear are free of ACM contamination, and follow a designated path to the remote decon unit.
    - 5) Once in the decon unit, follow normal decontamination procedures.
- 14. Install an Equipment Decontamination Enclosure System, consisting of a washing station and a holding area, with curtained doorways and a lockable door.
- 15. Maintain a negative pressure of at least 0.02" water column (wc) between each contained area and adjacent spaces 24 hours a day using negative air machines vented to the outside, from the start of abatement work to final clearance. Backup negative air machines shall be available onsite in case of machine failure.
- 16. Once operational, the system shall be inspected daily with smoke tubes by the contractor. Damages and defects will be repaired immediately upon discovery.
- C. Exterior Preparation (for areas that interface with interior work)
  - 1. 6 mil plastic sheeting shall be placed over the ground, foundation, or other surfaces below the abatement area.
  - 2. Unauthorized entry shall be prevented by using appropriate barriers, such as warning tape, fencing, or other suitable barriers.
  - 3. Nearby air intakes, grilles, and other openings into the building interior shall be sealed off with poly and tape.
  - 4. The contractor shall be responsible for cleanup of any adjacent areas that become contaminated as a result of the abatement activities at no additional cost to the building owner.

#### 3.8 Abatement Procedures

#### A. Removal:

1. Asbestos materials shall be adequately wetted and kept adequately wet during removal.

- 2. ACM waste shall be bagged or containerized as it is removed.
- 3. Work areas shall be kept wet until visible material is cleaned up.

#### B. Encapsulation:

- 1. Damaged or missing areas of existing materials shall be repaired with non-asbestos substitutes, where appropriate.
- 2. Loose or hanging ACM shall be removed using appropriate removal procedures.
- 3. Bridging encapsulants shall be applied in accordance with manufacturer's instructions.
- 4. Penetrating encapsulants shall be applied to penetrate existing materials to the substrate.
- 5. Encapsulants shall be applied with airless spray equipment.
- 6. Encapsulated ACM shall be labeled as asbestos to prevent future unprotected disturbance.

#### C. Enclosure:

- Locations where openings for hangers, supports, framing, or other attachments
  must be made in the ACM must be misted with water and kept damp to reduce
  airborne fiber release. Tools used to drill, cut, or otherwise disturb the ACM
  during attachment installation shall be equipped with a HEPA-filtered local
  exhaust system.
- 2. Loose or hanging ACM shall be removed using removal procedures.
- 3. Damaged areas shall be repaired with non-asbestos materials.
- Utilities or other items requiring access shall be relocated outside of the enclosure area. Once enclosures are installed, they shall not be opened or disturbed.
- 5. Enclosure materials shall be impact resistant and provide an airtight barrier.
- 6. Enclosures shall be labeled that they contain asbestos materials to prevent future unprotected disturbance.
- 3.9 Cleaning and Decontamination: Cleaning and decontamination of abatement areas, excluding glovebag areas, are as follows:
  - All visible accumulations of ACM, debris, tools, and unnecessary equipment shall be removed from the work area.

#### B. First clean:

- 1. Wet clean all surfaces and remove excess water.
- 2. Wait 12 hours before proceeding further to allow dust and fibers to settle.
- 3. Remove outer layer of poly and dispose as ACM waste.
- 4. Completion of First Clean shall be determined and documented by the EC.

#### C. Second clean:

- 1. Wet clean all surfaces and remove excess water.
- 2. Wait 12 hours before proceeding further to allow dust and fibers to settle.
- 3. Remove inner layer of poly and dispose as ACM waste.
- 4. Critical barriers on windows, doors, penetrations, and other openings shall

- remain in place and negative air system shall remain in continuous operation until final clearance tests have passed.
- 5. Completion of Second Clean shall be determined and documented by the EC.

#### D. Third clean:

- 1. Wet clean all surfaces and remove excess water.
- 2. Wait 12 hours before proceeding further to allow dust and fibers to settle.
- 3. Remove all tools, cleaning materials, remaining wastes from the work area. Tools and equipment shall be cleaned before removal.
- 4. Third Clean shall be determined and documented by the EC.
- E. Visual inspection: EC and contractor shall jointly inspect the work area for visible residue and excess water and, if observed, repeat the clean/12 hour wait cycle until residues are not detected and work area is dry.
- F. Apply lock-down encapsulants where specified in the Documents.
- G. EC will inform AC if the work area is ready for final clearance testing.

#### 3.10 Final Clearance

- A. Final clearance testing (aggressive methods) shall be performed after 12 hours have lapsed since the final cleaning, and when visual inspection has been completed and no visible water or condensation remains.
- B. Work areas with 260 linear feet or 160 square feet or more of ACM shall be tested using aggressive sample collection methods and Transmission Electron Microscopy (TEM) analysis, as required by AHERA and IDPH Section 855.170. The sample set must include at least 5 inside samples, 5 outside samples, 2 field blanks, and 1 sealed blank. NOTE: Large, complicated, or multi-floor contiguous work areas connected by corridors, stairways, or other connections may be tested with a larger "inside" sample set rather than full, multiple TEM tests, so long as the inside sample distribution is reasonably representative of the work area conditions.
- C. Work areas with less than 260 linear feet or 160 square feet may be tested using aggressive sample collection methods and analyzed by Phase Contrast Microscopy (PCM).
- D. If final clearance test(s) fail, the AC is responsible for repeating the cleaning sequence as necessary until final clearance tests are successful. All expenses associated with the collection and analysis of additional final clearance tests are the responsibility of the AC.
- 3.11 Special Procedures: Less stringent requirements may apply in a number of cases.
  - A. Variances from IDPH Regulations. Variances may be requested and approved by the IDPH. These less stringent procedures may only be used when they have been requested by the Project Designer and approved by the IDPH on a case-by-case basis.

- 1. Variances that have been applied for the project will be listed in the Documents. These variances may or may not be approved by the IDPH.
- 2. The contractor is encouraged to request additional variances it believes will be beneficial to the project. Such requests shall be submitted to the Project Designer (Carnow Conibear) as a value engineering proposal which references the IDPH regulation section, describes the procedure variations, includes information which supports the efficacy and benefits of the alternative procedures, and offers appropriate cost savings.
- 3. Otherwise the contractor is required to fully adhere to the requirements of this specification. Failure to obtain a variance shall not constitute a change in the requirements of these documents.
- B. Operations and Maintenance Procedures where minor areas of ACM must be disturbed for building repairs, such as drilling holes in walls or floors, cleaning small areas to allow installation of fixtures, smoke detectors, etc. The Documents will state if these procedures are allowed for a particular project or task.
  - 1. Submit an asbestos notification to the IDPH for quantities over 3 linear or square feet.
  - 2. Licensed abatement workers are required, but a licensed abatement contractor is not mandatory for work less than 3 linear or square feet.
  - 3. Shut down heating, cooling, or ventilating air systems to prevent fiber dispersal to other areas.
  - 4. Seal off openings in the work area, including windows, doorways, vents, and other openings with 6 mil poly sheeting and tape.
  - 5. Lay an impermeable drop cloth under the work.
  - 6. Wear appropriate PPE and at least a 1/2 mask APR respirator. Note that OSHA still requires an exposure assessment and respirators that are appropriate for the expected airborne fiber concentrations.
  - 7. Use wet removal methods.
  - 8. Wet clean work area, leaving no visible residue.
  - 9. Package and dispose of asbestos-containing waste as specified in the waste disposal section.
  - 10. Work shall be considered complete following inspection by Asbestos Project Manager and Post O&M Air Sampling <0.01 f/cc.
- C. Glovebag Procedure. Glovebags may be used to remove pipe and duct insulation.
  - 1. Normal IDPH Notification requirements apply to quantities of more than 3 linear or square feet.
  - 2. Glovebag removal will require a single layer, 6 mil poly tent containment (minicontainment) with negative pressure air filtration.
  - 3. Monitoring will be performed for each contained area by Carnow Conibear:
    - a. 1 personal sample
    - b. 1 area sample
    - c. 1 area sample at each negative pressure machine exhaust
  - 4. Glovebag construction shall be 6 mil poly with seamless bottom, suitable for the intended use (straight runs, fittings, elbows, vertical pipes, etc.) without modification.
  - 5. At least two licensed workers shall perform glovebag operations.

- 6. Workers shall wear full body PPE and at least a 1/2 mask APR respirator. Note here, too, that OSHA still requires an exposure assessment and respirators that are appropriate for the expected airborne fiber concentrations.
- 7. Prior to use, all loose or damaged material adjacent to the operation shall be wrapped in two layers of 6 mil poly or otherwise be rendered intact.
- 8. Work Practices shall include:
  - a. installation to completely cover the circumference of pipe or other structure. Pipe insulation diameter shall not exceed 1/2 the bag working length above the glove sleeves.
  - b. smoke test for leaks and seal any leaks prior to use.
  - c. glove bag shall be single use and not moved once it is placed.
  - d. wet removal methods on the materials to be removed and wet cleaning to remove all visible ACM from the pipe or structure surfaces.
  - e. not to be used on surfaces having temperatures greater than 150°F.
  - f. spray down the interior surfaces of the bag, substrate, and removed ACM.
  - g. first and second cleaning, waiting at least 12 hours following each cleaning.
  - h. wet down remaining ACM surfaces or seal with encapsulant.
  - i. seal off the lower portion of the bag containing the ACM waste by twisting several times and sealing with tape.
  - j. collapse glovebag with a HEPA vacuum.
  - k. slip a 6 mil poly waste disposal bag over the glovebag, detach the bag from the pipe, and gooseneck-seal it in the waste disposal bag.
  - I. dispose in accordance with this specification.
- D. Resilient Floor Covering. Removal of resilient floor covering may only be performed when Gross Removal is not specifically required by the Project Designer or Project Documents. Intact removal of resilient vinyl floor coverings shall be by IDPH Licensed Asbestos Workers supervised by an IDPH licensed Supervisor using heat guns, infrared heat machines or other methods that remove the floor covering in whole pieces. Buffing machines may not be used for removal of mastic. The contractor shall insure that no damage is caused to the area or equipment below the floor. Abatement procedures are as follows:
  - 1. Submit the Floor Tile Project Notice at least 10 working days prior to the beginning of all asbestos resilient floor covering abatement projects.
  - 2. Post signs so that the work area cannot be entered from any direction without observing a sign.
  - 3. Isolate the work area from areas to remain occupied.
  - 4. Install barriers of six mil plastic sheeting sealed with duct tape at all openings in the work area. Openings larger than 4' x 8' may include wood constriction barriers.
  - Install a curtained doorway at the entry to the work area, lock out electrical power
    to the room and supply required power with ground fault interruption protected
    circuits.
  - 6. Wear, as a minimum, half-faced dual cartridge NIOSH-approved respirators and double disposable suits.
  - 7. Remove floor covering without causing breakage. Work will stop if breakage occurs and removal will be completed by gross removal at the contractors cost.
  - 8. Dispose of floor covering and debris as asbestos waste.

- 9. HEPA vacuum the work area thoroughly following completion of the removal.
- 10. HEPA vacuum surface of protective clothing and dispose of clothing as asbestos waste.
- 11. Personal air monitoring will be performed by the contractor in accordance with OSHA during ALL intact floor tile/mastic removal operations.

#### 3.12 Waste Disposal and Equipment Load-out

- A. Preparing equipment for load-out.
  - 1. Seal openings to prevent escape of internal contamination; or open up equipment, remove filters, and make equipment interiors accessible for cleaning and decontamination.
  - 2. HEPA vacuum and wet wipe all equipment before removal
- B. Packaging asbestos wastes:
  - All asbestos-containing wastes, including removed ACM and debris, containment poly, critical barrier materials, suits, respirator filters, vacuum and negative air machine HEPA filters, water filters, and other asbestos-containing items shall be properly packaged for disposal.
  - 2. Use double 6 mil plastic bags with "gooseneck" seal, or other impermeable containers.
  - 3. Wrap large or irregular items in 2 layers of 6 mil poly sheeting, seal with tape, and affix required labeling.
  - 4. Sharp, jagged, or other items (floor tiles, screws, nails, metal debris, wood etc.) that may puncture poly shall be packaged in rigid impermeable containers such as drums or boxes, or wrapped in burlap or other protective covering before sealing in double bags or double layers of 6 mil poly.
  - 5. Label containers:
    - a. OSHA warning label.
    - b. DOT performance-oriented hazardous material label.
    - c. Name and address of generator and abatement location.
- C. Removing items from the work area:
  - 1. Packaged asbestos wastes, non-porous debris (such as ceiling grid, doors, hardware, and other items that can be decontaminated), and equipment shall be wet cleaned, moved into the equipment decontamination enclosure system, cleaned a second time, and moved into the holding area.
  - Containers and equipment shall be removed from the holding area by workers in clean PPE and respirators who enter from the uncontaminated side (outside). The equipment decontamination enclosure system shall not be used to enter or exit the work area.
  - 3. Waste shall be placed in a cart and covered. A plastic runner shall be placed on the floor to the waste storage area. The loaded cart shall be carefully taken to and unloaded into the enclosed waste storage container.
- D. Storage of packaged asbestos wastes shall be in a completely enclosed dumpster or other suitable container that can be secured. The secured area shall be kept locked at all times to prevent unauthorized access.

- E. Shipment of items from the project.
  - 1. Decontaminated tools and equipment may be shipped by normal carrier to warehouse, another jobsite, or other destination.
  - 2. For asbestos wastes:
    - a. Line shipping container with 6 mil poly prior to loading packaged asbestos wastes.
    - b. Post NESHAP placards during loading.
    - c. Persons performing loading operations shall wear PPE and respirators.
    - d. Containers and packages shall be tightly packed together to prevent shifting during transport. Large components or heavy items shall be secured to prevent shifting, and shall not be stacked on top of bags.
    - e. Execute the NESHAP-required Waste Shipment Record (WSR) to be signed by the generator, transporter, and landfill. All WSRs shall be returned to Carnow Conibear within 30 days of shipment.
    - f. ACBM waste shall be transported from the work site directly to the landfill.
- F. Disposal of packaged asbestos wastes.
  - 1. Only landfills approved and permitted by Illinois for accepting asbestos wastes may be used for disposal.

#### 3.13 Demobilization

- A. Carnow Conibear shall inspect the work area for evidence of visible debris prior to releasing the area for tear-down. Detection of contamination will require additional cleaning and re-testing of the work area.
- B. Remove critical barriers and seals.
- C. Restore previously-removed items, if specified in the Documents:
  - 1. Re-mount fixtures and other previously dismounted objects.
  - 2. Return moveable objects to their original locations.
  - 3. Install new filters in HVAC systems where filters were previously removed.
  - 4. Re-establish electric systems and other utilities that were shut down or locked out.
- D. A punch list walk-through shall be conducted for each cleared work area within two working days of clearance testing by Carnow Conibear, contractor, and school official. All punch list items shall be completed within five working days of walk through.

#### ATTACHMENT:

Appendix A Additional Design Details

Appendix B Environmental Scope of Work Drawings

END OF SECTION

# SPECIFICATION SECTION 02132 ASBESTOS ABATEMENT FOR EXTERIORS

Carnow Conibear Project No.:A139670092

**CARNOW CONIBEAR** 

#### SECTION 02132 - ASBESTOS ABATEMENT FOR EXTERIORS

#### PART 1 - GENERAL

#### 1.1 Introduction

Exterior building spaces are not covered by Illinois Department of Public Health (IDPH) abatement rules, except for covered hallways or porticos connecting buildings and outdoor mechanical systems which condition indoor air (such as air handling units, air conditioners, cooling towers, etc.), or when interior building spaces are involved.

Window components, window caulks, window glazing putty, Door Caulks, exterior transite sheeting, flashings, cements, or other products installed on the building exterior are subject to Occupational Safety and Health Administration (OSHA) and National Emission Standards for Hazardous Air Pollutants (NESHAP) rules which, in many cases are less rigorous than IDPH requirements. All exterior asbestos abatement activities shall be conducted from the exterior of the building only (Seal Interior with Rigid Barrier and Poly Sheeting). At no time shall any work activity be staged from the interior of the building. Abatement of these items is specified in this section.

- 1.2 Definitions In addition to the terms listed below, all definitions in the laws and regulations listed in Section 1.5 are incorporated by reference, whether or not restated herein.
  - A. Abatement Contractor (AC) means the entity responsible for performing the work in this section and has the training and accreditation to competently perform the work. This entity will obtain and maintain licenses required for any indoor work in this section.
  - B. Asbestos Abatement Supervisor, hereinafter referred to as Supervisor means any person who supervises asbestos abatement workers. This person must be trained, accredited, and meet OSHA competent person criteria for asbestos abatement.
  - C. Asbestos Project Manager (APM) is the individual that performs asbestos abatement project oversight, acts on behalf of the Rockford Public Schools or its agents on the project, and performs "Project Manager" duties as defined by IDPH asbestos regulations.
  - D. Rockford Public Schools means the owner of the property and the authority ordering the work specified herein.
  - E. Competent person means one who is capable of identifying existing asbestos hazards in the workplace and selecting the appropriate control strategy for asbestos exposure, who has the authority to take prompt corrective measures to eliminate them, as specified in 29 CFR 1926.32(f): in addition, one who is specially trained in a training course which meets the criteria of EPA's Model Accreditation Plan (40 CFR 763) for supervisor, or its equivalent.
  - F. HEPA Filter means a High Efficiency Particulate Air filter capable of trapping 99.97% percent of particles greater than 0.3 micrometers in mass median aerodynamic

- equivalent diameter.
- G. IDPH means the Illinois Department of Public Health.
- H. Carnow Conibear & Assoc., Ltd. (CCA) means the entity with overall responsibility for the environmental aspects of the project, including design, organization, direction, and control as well as investigations, assessments and on-site supervision of project managers.
- I. Plasticize means to apply 6-mil plastic sheeting over surfaces or objects to protect them from contamination or water damage.
- J. PPE (Personal Protection Equipment) means the protective suits, head and foot covers, gloves, respirators and other items used to protect persons from asbestos or other hazards.
- K. RCRA means the Resource Conservation and Recovery Act and associated regulations.
- L. SDS means Safety Data Sheet, required by OSHA for any chemical in the workplace that that could be expected to cause an exposure to workers during normal use or in emergency situations.
- M. TCLP means the Toxicity Characteristic Leaching Procedure as specified in EPA 530/SW-846, Test Methods for Evaluating Solid Waste: Physical/Chemical Methods 3rd edition, November 1986.
- N. Work Area means the area or areas where asbestos abatement is being conducted.
- 1.3 Scope of Work Refer to Environmental Scope of Work Drawings included in Appendix B.

#### 1.4 Work Included

- A. The work includes all labor, equipment, materials, and supplies necessary to perform the scope of work in the Documents by the procedures described herein. The abatement contractor, by submitting a bid for the work, represents itself as knowledgeable and expert in the performance of the work, and includes all things necessary to provide a complete and finished job, whether specifically mentioned or not.
- B. Removal of asbestos-containing materials listed in the Documents, including isolating and/or regulating the work areas, protection of adjacent areas, cleanup, proper packaging and disposal of wastes, and all other steps necessary to complete the scope of work.
- C. Repair or replacement of damaged surfaces, landscaping, fixtures, or furnishings to restore them to like new condition to the satisfaction of the Architect, Board Authorized Representative or Carnow Conibear.
- D. When the Documents include lead and asbestos abatement items in the same

spaces, the work should be performed in the sequence and combinations that produce the most efficient results, minimize concentrated lead waste volume, and produce the least amount of total waste. That sequence will generally be:

- 1. Cleanup and removal of lead dust, flakes, chips, peeling paint, and residues most likely to fail a TCLP test.
- 2. Removal of asbestos materials and cleanup of visible residues.
- 3. Removal of lead-bearing architectural components.
- 4. Removal of non-friable asbestos items. If both asbestos and lead are on the same components, for example lead paint and asbestos-containing glazing compound, the components may be removed and disposed with both the lead and asbestos-bearing items intact.
- 5. Final cleanup and decontamination of the work space. Final air clearance (asbestos) and wipe samples (lead) may be performed concurrently.
- 6. When lead and asbestos final decontamination processes are combined, the more stringent cleanup procedures will apply for both.
- 7. Waste disposal.
  - a. <u>Classified waste</u>: loose paint flakes, chips, and dust; lead-specific cleaning supplies; contaminated soil; combined final decontamination supplies; disposable suits, gloves, headcovers, and footcovers; other items that fail a TCLP test.
  - b. <u>Special waste</u>: friable asbestos-containing waste materials and lead-contaminated waste that has passed TCLP or other RCRA tests.
  - c. <u>Construction and demolition (C&D) debris</u>: non-friable asbestoscontaining waste materials (such as, but not limited to intact transite, mastics, packing, caulking); lead-bearing architectural components; demolition debris, and other general wastes.
  - d. All asbestos-containing or lead-bearing wastes, regardless of classification, shall be disposed in an IEPA-approved landfill within the State of Illinois to accept asbestos-containing or lead-bearing waste materials.
- E. Compliance with all applicable laws, regulations, standards, and these specifications. In the case of a conflict, the contractor will comply with the most stringent.
- F. All licenses, accreditations, permits, fees, notifications, reports, or other documents required by law, regulation, this specification, or the Documents.
- G. Provide project closeout documentation to the Environmental Project Manager (EPM) within thirty (30) days after final clearance. This documentation shall include, but is not limited to, items listed in paragraph 1-7, Submittals.

## 1.5 Laws, Regulations and Standards

- A. The following laws, regulations, and standards are incorporated by reference:
  - 1. 29 CFR 1910 US OSHA General Industry Standards
  - 2. 29 CFR 1926 US OSHA Construction Standards
  - 3. 29 CFR 1926.1101 US OSHA Asbestos Construction Standards

- 4. 40 CFR Part 61 US EPA National Emissions Standards for Hazardous Air Pollutants (NESHAP), 11/90 revision
- 5. 40 CFR Part 763 Subpart E US EPA Asbestos Model Accreditation Plan (MAP): Appendix C Interim Final Rule

## 1.6 Assessment, Monitoring, Testing and Analysis

- A. Carnow Conibear (CCA) will perform inspection, testing and design services prior to the start of work, and during the project, if necessary. CCA will also perform testing, inspection, and monitoring services during the work and upon its completion:
  - 1. Prior to the start of the work, CCA shall
    - Identify suspect materials and confirm their asbestos content through review of the school's existing documentation or by testing;
    - b. Design the project and address any design changes as requested. Approved changes shall be submitted to the IDPH, when necessary.
  - 2. During the work, CCA shall:
    - a. Observe the work periodically, with sufficient frequency to ensure contractor compliance.
    - b. Collect area air samples in and around the work area, as needed, to verify exposure conditions.
    - c. Stop the work if airborne asbestos concentrations at the work area perimeter or interior building spaces exceed 0.01 f/cc. Contractor will be responsible for taking corrective action to reduce exposure levels and prevent recurrence; cleaning adjacent areas that become contaminated by the asbestos abatement activities.
    - d. Make copies of contractor licenses from the originals.
    - e. Complete design changes that are needed.
  - 3. Upon completion of work, CCA shall:
    - a. Visually inspect for visible dust and debris, and verify the full completion of the work.
    - b. Require contractor to re-clean the area or portions of areas until no visible debris remains.
    - c. Perform clearance air sampling at the completion of the work activities, when necessary.
- B. The abatement contractor shall provide OSHA compliance air monitoring to determine exposures to its employees in accordance with OSHA 29 CFR 1926.1101. Frequency of monitoring will comply with OSHA requirements for the anticipated and actual exposure levels.
  - A written Exposure Assessment with air sampling and analysis conducted 6
    months or less prior to the start of the work to determine the requirements for
    respiratory protection and frequency of OSHA monitoring for each type of activity.
    The contractor should note that a Negative Exposure Assessment (NEA) may be
    possible for these tasks.

- 2. Analysis may be performed on site.
- C. Credentials required for testing and analysis of PCM air samples:
  - 1. Air sampling shall be conducted by an IDPH licensed Air Sampling Professional.
  - 2. Accreditation by AIHA or AAR; or
  - 3. Participation in the Proficiency Analytical Testing (PAT) program.
- 1.7 Submittals by the Contractor (submitted to CCA):

The following shall be submitted to CCA no less than 10 days prior to the start of the asbestos abatement work activities.

- A. Ten (10) day NESHAP notification to the Illinois EPA when the asbestos quantities reach or exceed 260 linear feet or 160 square feet. Two (2) day IDPH notification for asbestos abatement quantities less then 260 linear feet or 160 square feet.
  - 1. Ten (10) day IEPA Asbestos Notification on revised form, including inspector license number and landfill permit number.
  - 2. Contractor Illinois Abatement License
  - 3. Evidence that all abatement contractor employees in the work areas are trained and accredited in accordance with OSHA, NESHAP, and EPA MAP requirements:
    - a. Current Annual refresher training certificate.
    - b. Current IDPH asbestos license
    - c. Current physician's written opinion
    - d. Current respirator fit test for negative pressure respirators when respirators are used.
  - 4. Copy of OSHA Exposure Assessment, with air sampling and analysis conducted 6 months or less prior to the start date of the abatement project.
  - 5. Safety Data Sheets (SDS) for chemicals used on site.
- B. The following shall be submitted to CCA at the completion of the project.
  - 1. OSHA compliance air monitoring records generated during the project.
  - 2. Supervisor Logs
  - 3. Worker Daily Sign In Logs
  - 4. Documentation of any Safety Meetings
  - 5. Waste Shipment Records.

## 2 - PRODUCTS

- 2.1 Tools and Equipment All equipment shall at least conform to minimum industry standards:
  - A. Equipment:
    - 1. Respirators shall be NIOSH approved for use with lead, asbestos, or other

- contaminants anticipated in the work.
- 2. Contractor is fully responsible for complying with OSHA rules for other Safety equipment, such as hard hats, safety harnesses, eye protection, gloves, footwear, and any other safety devices used on the site.

## B. Tools:

- Ladders, scaffolding, lifts and all other rigging devices shall be constructed and/or utilized in a safe manor meeting all regulatory and permitting requirements.
- 2. Power tools such as, but not limited to saws, pneumatic chisels, brushes, sanders, and needle guns shall be equipped with shrouds and HEPA-filtered local exhaust systems to capture released particles. Power tools shall also be grounded using a ground fault Circuit Interrupter (GFI) breaker or outlet.

## 2.2 Materials

- A. Installed materials which become a part of the work such as, but not limited to, encapsulants foam sealants and permanent enclosures shall be of good quality, non-lead-bearing, free of asbestos, and conform to the respective reinstallation specification sections.
  - 1. Contractor shall ensure that encapsulants and sealants used as primers, basecoats, fillers or covering existing materials are compatible with the respective existing or reinstallation materials and their manufacturers' warranties.

## B. Abatement materials

- 1. Poly sheeting for all applications shall be 6 mil nominal thickness.
- 2. Tape shall be 2 inch or 3 inch duct tape or other waterproof tape suitable for joining poly seams and attaching poly sheeting to surfaces.
- 3. Spray adhesives shall be non-flammable and free of methylene chloride solvents.
- 4. Disposal bags shall be 6 mil.
- 5. Disposable suits, hoods, and foot coverings shall be TYVEK or similar.
- 6. Solvents shall be compatible with any primers, mastics, adhesives, paints, coatings, or other surfacing materials to be installed following their use.

## PART 3 - EXECUTION

## 3.1 Employee Training, Qualification and Medical Screening

- A. Supervisors and Workers shall be trained, accredited, and licensed in accordance with IDPH rules and regulations:
  - 1. Contractor shall keep copies of licenses, initial training course certificate, and most recent annual refresher training certificate at the jobsite at all times for all

- contractor personnel.
- 2. A Supervisor (competent person) shall be present at the work site at all times when work under this section is being conducted.
- B. Medical Screening. All contractor personnel shall have a current medical examination in accordance with OSHA requirements. Copies of the Physician's Written Opinions shall be kept on site along with a current fit test certificate.

## 3.2 Permissible Exposure Limits

- A. The OSHA permissible exposure limit (PEL) for worker exposure to airborne fibers is 0.1 f/cc as an 8-hour time-weighted average (TWA).
- B. The OSHA short term excursion limit (STEL) for worker exposure to airborne fibers is 1.0 f/cc for a 30 minute sample.

## 3.3 Exposure Assessment and Monitoring

- A. The abatement contractor shall make an assessment of the airborne exposures. Assessment shall conform to OSHA requirements and may be based upon:
  - 1. Initial monitoring of representative workers who the contractor believes are exposed to the greatest airborne concentrations of asbestos, or
  - 2. Past monitoring (within the past 12 months) or objective data for conditions closely resembling the processes, type of material, control methods, work practices and environmental conditions to be used for this Documents, or
  - 3. In the absence of an exposure assessment the contractor shall perform the work in full negative pressure containment with Powered Air Purifying respirators.
- B. The contractor shall perform personal monitoring in accordance with the following requirements:
  - 1. Initially, to establish an exposure assessment when past monitoring or objective data are not available for an initial determination.
  - 2. Daily, if the exposures are, or are expected to be, above the PEL of 0.1 f/cc.
  - 3. Periodically if the exposures are, or are expected to be, below the PEL.
  - 4. Whenever there has been a change of equipment, process, control, personnel, or a new task has been initiated that may affect employee exposures, the exposure assessment shall be updated, and monitoring shall be reinstituted if exposures are unknown or are expected to exceed the PEL.
  - 5. Area Monitoring is required and will be provided by the owner at the perimeter of work areas and interior building areas to verify that concentrations of airborn fibers remain below 0.01 F/cc.

## 3.4 Respiratory Protection

Respiratory protection shall be worn by all persons potentially exposed to airborne asbestos fibers.

## 3.5 Hygiene Practices

- A. Eating, drinking, smoking, chewing gum or tobacco, and applying of cosmetics are not allowed in the work area.
- B. All persons entering the work area shall wear appropriate PPE.
- C. When the use of a Personnel Decontamination Enclosure System is deemed necessary by CCA or regulatory requirements, the abatement contractor shall follow all entry and exit procedures posted in the Personnel Decontamination Enclosure System.
- C. Personal Protection Equipment (PPE) shall include:
  - 1. Full body disposable suits, headgear, and footwear.
  - 2. Gloves.
  - 3. Hard hats.
  - 4. Non-disposable footwear and clothing shall remain in the work area and shall be disposed of as contaminated waste when the job is completed.
  - 5. Authorized visitors shall be provided with suitable PPE when required in the work area.
  - 6. PPE is required when exposures are, or are expected to be above the PEL.
- D. A Personnel Decontamination (decon) Facility is required when worker exposures are expected to be above the PEL. The Decontamination unit may be remotely located if not feasible to locate adjacent to the work area.
  - 1. Establish a negative pressure of at least 0.02 inch wc between the dirty equipment room and adjacent spaces, including the clean room. Assume Negative Air Machines (NAM) operate at 80% design capacity.
  - 2. Provide at least 4 air changes per hour within the decon unit
  - 3. All personnel shall use a double-suiting procedure for traveling between work areas and decon. Persons shall HEPA-vacuum the exterior of their disposable suits at the entry to the work area, put on a clean suit over the existing suit, and proceed to the decon unit for shower decontamination and change into street clothes.
- E. To exit, persons shall HEPA-vacuum down clothing at the work area entry, and leave the work area. When disposable suits are used, they shall be HEPA-vacuumed, stripped off, and deposited in an asbestos disposal bag. Personnel may then leave the work area.

## 3.6 Prohibited Activities

- A. Dry removal or dry sweeping, except:
  - 1. During freezing weather. In this case, temperature and weather conditions must be recorded at the start, during, and at the end of the shift.
  - 2. On roofs with 3:1 slope or greater. In this case, roofing shall be removed in an intact condition, as much as possible.
  - 3. When equipment damage or other hazard exists. In this case, written permission from IEPA is required prior to performing dry removal.

- B. Use of compressed air for cleaning.
- C. Use of high speed power tools not equipped with a HEPA-filtered local exhaust system.
- D. Eating, drinking, smoking, chewing gum, or applying cosmetics in the work area.
- E. Removing respirators or other PPE in the work area.
- F. Conduct abatement activities from interior of building.
- G. Transport any asbestos waste through interior building areas.

## 3.7 Work Area Isolation and Preparation

## A. General Preparation

- 1. Post caution signs and warning tape meeting the specifications of OSHA 29 CFR 1926.1101 (k)(6) at any location and approaches to a location where airborne concentrations of asbestos may exceed ambient background levels.
- 2. Secure the work area from entry by unauthorized persons.
- 3. Seal interior side of building with rigid barrier and six mil poly sheeting for abatement activities performed from the exterior.

## B. Exterior Preparation

- 1. 6 mil plastic sheeting shall be placed over the ground, foundation, or other surfaces below the abatement area.
- 2. Unauthorized entry shall be prevented by using appropriate barriers, such as warning tape, fencing, or other suitable barriers.
- 3. Nearby air intakes, grilles, windows, and other openings into the building interior above, below, or beside the work area that could be exposed to released airborne dust shall be closed or otherwise sealed off with poly and tape.
- 4. All electric power in the work area shall be protected with Ground-Fault Circuit Interrupters.

## 3.8 Abatement Procedures

## A. General Removal Requirements:

- 1. Asbestos materials shall be wetted and kept wet during removal.
- 2. ACM shall be bagged or containerized as it is removed. Wastes shall not be dropped or thrown to the ground. Accumulated waste shall be properly packaged and containerized promptly. Unless the material is carried or passed to the ground by hand, it shall be lowered via covered, dust-tight chute, crane, hoist, or other means that prevent the wastes from being dropped or thrown.
- 3. Appropriate OSHA protection shall be provided when working from exterior access:
  - a. Scaffolding shall be equipped with handrails and midrails designed to

- provide fall protection, or full-body safety harnesses shall be worn and tied off to a secure anchor point.
- b. Workers in manlifts shall wear full body harnesses and tie to the tie-off point provided on the manlift basket whenever the basket is elevated from ground level.
- c. The contractor shall ensure that scaffolding, manlifts and the workers erecting and using the equipment meet all federal, state and local regulations and requirements including the acquisition of all required permits for the erection and use of such equipment.
- B. Window Replacements: Asbestos-containing materials are most likely to be found in caulking and glazing putty. Windows may be removed under this section if ACM is handled from the building exterior. If ACM materials must be accessed from inside the building or ACM wastes must be transported through the building interior, then IDPH-regulated Interior Asbestos Abatement School Rules and Regulation Section 855, requirements will apply at no additional cost to the building owner.

## For exterior work:

- 1. Close windows and seal from the inside by covering with appropriate board up materials, 6 mil poly and tape.
- 2. Any ACM not required to be disturbed for window removal should be left in place (e.g. perimeter window frame).
- 3. ACM that must be disturbed (e.g. caulking at the edge of the window frame) must be removed completely, including three-dimensional residues.
- 4. Collect debris and deposit in asbestos waste bags as the work proceeds. Do not allow wastes to accumulate. Promptly containerize waste as generated.
- 5. Abate ACM on all window components to remain in place.
- 6. When windows and/or doors require removal for abatement purposes then AC responsible for the adequate board up of building openings. Such board up requirements shall include sufficient framing and ½" plywood sheathing covered in one (1) layer 6-mil poly sheeting.

## C. Roofing

- General: Remove ACM roof mastics, cements, underlayments, and flashings in an intact state to the extent feasible. Asbestos-containing shingles may occasionally break even when removed carefully. The fact that otherwise intact roofing materials become separated or broken does not by itself render them non-intact. However, if they become pulverized, reduced to powder or dust, they have become non-intact.
  - a. The contractor shall take care to minimize the amount of roofing material damage, or;
  - b. If the materials are rendered non-intact, the contractor shall employ methods to contain the dust and debris and utilize hygiene practices appropriate for friable (OSHA Class I) ACM, including PPE, decontamination units, and monitoring. Monitoring may include area samples at the work area perimeter to determine that airborne asbestos fibers are not being released in concentrations above the PEL.
- 2. Built-up roofing and asphalt shingles:

- a. Power cutting machines shall be equipped with a HEPA-filtered dust collection system and shall be misted during use.
- b. Dust generated by the cutting operation shall be collected with HEPA vacuums or wet cleaning methods.
- 3. Rigid roofing materials, such as cement asbestos shingles: remove intact and minimize breakage.
- D. Transite, Galbestos sheeting (galvanized metal with a baked-on asbestos paint), Asbestos/Cement pipe, or other rigid panels shall be removed using wet methods.

## E. Other

- Non-LBP paint and other coatings, electric cable insulation or joint coverings, and other miscellaneous materials that are to be removed with the substrate or that can be removed without becoming friable may be removed as intact (OSHA Class II, EPA NESHAP Category I or II non-friable) in accordance with procedures described in the General and Roofing Sections 3.8 A. and C.
- 2. Non-LBP paint, coatings, and other miscellaneous materials that must be removed from the substrate or that otherwise will become friable must be removed as non-intact (OSHA Class I, EPA NESHAP friable) in accordance with procedures described in General and Roofing Sections 3.8 A. and C.1.b.

## 3.9 Cleaning and Decontamination

- A. All visible accumulations of ACM, debris, tools, and unnecessary equipment shall be removed from the work area.
- B. Protective poly shall be folded in on itself, rolled up, placed in asbestos disposal bags, and disposed as asbestos waste.
- C. Surfaces which have been exposed to ACM or its dust shall be HEPA vacuumed
- D. Dry sweeping of surfaces which have been exposed to ACM or its dust is not permitted.

## 3.10 Final Clearance

A. Cleaning may be discontinued when there is no visible debris. If any area air monitoring analysis results demonstrate results are at or above the PEL, the abatement contractor is responsible for repeating the cleaning as necessary until tests are satisfactory. All expenses associated with the collection and analysis of additional air monitoring tests are the responsibility of the abatement contractor.

## 3.11 Waste Disposal and Equipment Load-out

A. Roofing waste may be loaded in bulk into lined enclosed receptacles, such as dumpsters or trailers. Receptacles shall be closeable and lockable to provide security and to prevent air emissions.

## B. Packaged asbestos wastes:

- Asbestos-containing wastes, including removed ACM and debris, window components, poly, critical barrier materials, suits, respirator filters, vacuum HEPA filters, water filters, and other asbestos-containing items shall be properly packaged for disposal.
- 2. Use 6 mil plastic bags with gooseneck seal, or other impermeable containers.
- 3. Wrap large or irregular items in 6 mil poly sheeting and seal with tape.
- 4. Sharp, jagged, or other items that may puncture poly shall be packaged in rigid impermeable containers such as drums or boxes, or wrapped in burlap or other protective covering before sealing in bags or poly sheeting.
- 5. Label containers for all ACM waste:
  - a. OSHA warning label.
  - b. DOT performance-oriented hazardous material label.
  - c. Name and address of generator and abatement location.

## C. Removing items from the work area:

- 1. Packaged asbestos wastes shall be HEPA-vacuumed before removing from the work area.
- D. Storage of packaged asbestos wastes shall be in a completely enclosed dumpster, or other suitable container that can be secured. The secured area shall be kept locked at all times to prevent unauthorized access.
- E. Shipment of items from the project.
  - 1. Decontaminated tools and equipment may be shipped by normal carrier to warehouse, another jobsite, or other destination.
  - 2. For asbestos wastes:
    - a. Line enclosed shipping container with 6 mil poly prior to loading packaged asbestos wastes.
    - b. Post NESHAP placards during loading of friable asbestos wastes.
    - c. Execute the NESHAP-required Waste Shipment Record (WSR) to be signed by the generator, transporter, and landfill. All WSRs shall be returned to CCA within 30 days of shipment.
    - d. ACM waste shall be transported from the work site directly to the landfill.
- F. Disposal of packaged asbestos wastes.
  - 1. Only landfills approved and permitted by Illinois for accepting asbestos wastes may be used for disposal.
- G. A punch list walk-through shall be conducted for each cleared work area by CCA, contractor, and designated school official. All punch list items shall be completed within five working days of walk through.

## **APPENDICES:**

Appendix A Additional Design Details

Appendix B Environmental Scope of Work Drawings

**END OF SECTION** 

# APPENDIX A ADDITIONAL DESIGN DETAILS

Carnow Conibear Project No.:A139670092

**CARNOW CONIBEAR** 

## ROCKFORD PUBLIC SCHOOLS DISTRICT 205 ASBESTOS ABATEMENT FAIRVIEW ELEMENTARY SCHOOL HVAC AND WINDOW RENOVATIONS – SUMMER 2017

## APPENDIX A: ADDITIONAL DESIGN DETAILS

**Environmental Scope Drawings** 

10

## **Additional Design Details**

- 1. The contractor is responsible for verifying quantities in the field before pricing. Any questions about the scope or clarifications shall be obtained from the Project Designer prior to pricing. Any interpretations of the design documents shall only be made by the Project Designer.
- 2. The abatement contractor is responsible for all security to the work area(s) during the environmental abatement activities.
- 3. Abatement contractor shall execute the NESHAP required Waste Shipment Record (WSR) for ALL waste to be signed by the generator, transporter and landfill. All WSRs shall be returned to the MEC within 30 days of shipment.
- 1. Contractor shall label bags and/or containers for asbestos waste with the following information:
  - Generator Name
  - 2. Contractor Name
  - 3. Project Location
  - 4. Month and year of contract work.

EC shall secure sample of label and retain as part of daily log/final report.

- 5. The environmental scope of work drawings detail locations of decontamination units, separation barriers, negative air exhaust, etc. The contractor shall follow the design as it pertains to the drawings. Any deviations from the drawings must be requested in writing, no less than ten days prior to commencement of abatement activities, and signed off by Project Designer and sent to IDPH prior to any work activities.
- 6. Contractor to erect separation barriers in a manner that will confine decontamination units, associated water and electrical hook ups, water filtration, water discharge, negative air exhaust, etc. If the water system connections cannot be isolated, then contractor shall disassemble system at the end of each work shift and place all equipment behind required barriers.
- 7. Contractor NOT responsible for the removal, relocation and replacement of area room contents necessary to complete this project. All furniture, room contents and personal items shall be removed by district prior to mobilization.

Carnow Conibear Project A139670092

March 27, 2017



## ROCKFORD PUBLIC SCHOOLS DISTRICT 205 ASBESTOS ABATEMENT FAIRVIEW ELEMENTARY SCHOOL HVAC AND WINDOW RENOVATIONS – SUMMER 2017

## APPENDIX A: ADDITIONAL DESIGN DETAILS

8. Contractor shall staff/schedule project as necessary to complete all contract work in provided time frames.

## Rockford Public Schools - Fairview Elementary School

IDPH Building ID# Building Address 04-101-2050-3073 512 Fairview Avenue

Rockford, Illinois 61108

Building Size

Approx. 70,000 SF Approx. 50 years

Age of Building Number of Floors

1 Plus Basement

Owner

Rockford Public Schools - District 205 501 7<sup>th</sup> Street, Rockford, Illinois 61104

Contact: Mr. Guy Carynski

Environmental Health & Safety Coordinator

Phone: 1-815-378-3771

Project Designer

John M. Dobby, CIH 100-09261

Project Manager

Contact Carnow Conibear prior to notification Contact Carnow Conibear prior to notification

Air Sampling Professional Building Inspector ID#

Mr. Daniel Juneau IDPH# 100-03613

Name of Analytical Lab

**CEI Labs** 



## APPENDIX B ENVIRONMENTAL SCOPE OF WORK DRAWINGS

Carnow Conibear Project No.:A139670092

**CARNOW CONIBEAR** 

## **Fairview Early Childhood Center**

512 Fairview Avenue Rockford, Illinois 61108

## ASBESTOS ABATEMENT SCOPE OF WORK:

Base Bid:

- BOILER ROOM ABATEMENT: Interior removal and disposal of thermal system insulation, including boiler, tank, pipe, and breeching insulation, and boiler gaskets as detailed in the environmental scope of work drawing ASB-1.
- WINDOW ABATEMENT: Exterior removal and disposal of existing exterior window assemblies
  including frames, glass blocks, interior window treatments, and all asbestos-containing interior and
  exterior perimeter caulk, glazing compounds and putty as detailed in the environmental scope of
  work drawings ASB-2 through ASB-6.

## Alternate #1:

GYMNASIUM WINDOWS: Exterior removal and disposal of existing exterior window assemblies
including frames, glass blocks, interior window treatments, and all asbestos-containing interior and
exterior perimeter caulk, glazing compounds and putty as detailed in the environmental scope of
work drawings ASB-2. ASB-4 and ASB-6.

## Alternate #2:

 LOWER LEVEL STORAGE WINDOWS: Exterior removal and disposal of existing exterior window assemblies including frames, glass blocks, interior window treatments, and all asbestos-containing interior and exterior perimeter caulk, glazing compounds and putty as detailed in the environmental scope of work drawings ASB-2, and ASB-7.

## Alternate #3:

 BOILER ROOM WINDOWS: Exterior removal and disposal of existing exterior window assemblies including frames, glass blocks, interior window treatments, and all asbestos-containing interior and exterior perimeter caulk, glazing compounds and putty as detailed in the environmental scope of work drawings ASB-2, ASB-4, and ASB-7.

## GENERAL CONSTRUCTION / DEMOLITION NOTES:

- 1. The Abatement Contractor is responsible for verifying quantities in the field prior to bid. Any questions about the scope or clarifications shall be obtained from the Project Designer prior to bidding. Any interpretations of the design documents shall only be made by the Project Designer.
- Abatement contractor shall perform any interior abatement or demolition in such a manner that interior spaces are protected from dust and debris. Abatement contractor will clean all affected interior spaces to pre-demolition conditions.
- 3. Locations for the staging of aerial lifts, materials and dumpsters shall be coordinated with RPS205 prior to mobilization.
- Removal and relocation of building contents necessary to accommodate work shall be the responsibility of RPS 205.
- 5. RPS 205 will provide electrician for connection/disconnections of any electrical necessary to support abatement. Abatement Contractor shall supply all parts and equipment. Coordination with district electrician shall be made at least 48 hours prior to mobilization or demobilization.

## **GENERAL ABATEMENT NOTES:**

- All asbestos abatement shall be in accordance with specification sections 02131 (interior abatement) or Section 02132 (exterior abatement) and applicable IDPH, EPA and OSHA rules and regulations.
- When door or window openings are utilized for the discharge of negative air exhaust, they shall be secured with 5/8" plywood sheeting and shall provide adequate security to the building during the abatement process.
- 3. The Abatement Contractor is responsible for the repair of existing asbestos-containing thermal system insulation at the termination point of the abatement. Repair shall include the use of non-asbestos containing plastering and bridging encapsulant to maintain the integrity of the insulation and to completely seal asbestos fibers.
- 4. The Abatement Contractor shall coordinate and confirm abatement schedule with General Contractor, RPS 205, Carnow Conibear prior to mobilization.
- 5. The Abatement Contractor Representative responsible for attendance at any pre-construction and or coordination meetings prior to mobilization and during abatement activities.

CLIENT:

- 6. Caution signs shall be posted adherent to specification requirements of OSHA 29 CFR 1926.1101(k)(6) at all potential entrances or barriers to the regulated abatement areas.
- 7. Abatement contractor responsible for daily cleanup and disposal of debris generated during

### abatement activities

- 8. Worker decontamination enclosure system shall be constructed in strict accordance with IDPH section 855.410. Clean room shall be sized to accommodate the needs of the work crew. Donning and Doffing of PPE outside of clean room is strictly prohibited.
- 9. Abatement Contractor to box out and protect with plywood sheeting and six mil poly sheeting, any Boiler room / mechanical equipment, generator, electrical panels or switchgear, etc. from damage or exposure to water or airborne asbestos fibers during the abatement.

## **EXTERIOR ABATEMENT NOTES:**

- 1. The Abatement Contractor is expected to complete the removal of 12-15 windows per work shift.
- Abatement of windows shall be conducted from the building exterior only. Interior building areas shall be sealed air tight with rigid sheeting, framing and 6-mil poly at each window opening. At no time shall abatement activities be conducted from the building interior.
- Abatement Contractor responsible for the removal and disposal of all interior window treatments and associated backing/supports. Removal of window treatments shall be performed in a manner not to cause unnecessary damage to supporting substrates.
- 4. Abatement Contractor responsible for the removal and disposal of any existing screens.
- 5. Abatement Contractor responsible for any interior damage exceeding 1" from window framing.
- Abatement Contractor responsible for the displacement and set-aside of any interior ceiling tiles and grid necessary for the exterior removal of windows. Ceiling tiles and components displaced shall be salvaged and set aside for replacement by General Contractor and /or RPS 205.
- 7. Abatement Contractor responsible for the removal of board up materials following installation of new window systems by Window Installer.
- 8. Abatement Contractor shall document existing conditions and is responsible for the protection of exterior landscaping, turf, concrete sidewalks, and interior furnishings from damage during exterior abatement related work. Repair, replacement or compensation for damage during the abatement process shall be the responsibility of the Abatement Contractor.
- 9. Abatement Contractor responsible for the temporary removal and set aside of any existing window air conditioners and associated supports and brackets. Removed A/C units and hardware shall be set on plywood sheeting within the room from where it was removed. Abatement Contractor is NOT responsible for reinstallation of the removed A/C units.
- 10. The Abatement Contractor is responsible for <u>all</u> demolition associated with the existing window systems. Following the abatement/demolition of the existing window system, the window opening shall be free of any clips, masonry, mortar drips, wood blocking / framing, etc that may interfere with the new window installation. Review AOR drawings available at RPS website for any reference required.
- Interior plastic sheeting installed for window abatement purposes shall be removed and disposed as abatement waste by the Abatement Contractor following abatement activities.

## WINDOW BOARD-UP NOTES:

PROJECT NAME:

PROJECT DESIGNER

- 1. When windows are removed for abatement purposes, Abatement Contractor responsible for the board-up of window opening <u>prior to abatement</u>. Board-up requirements include, at a minimum, 2"x4" framing and 1/2" plywood sheathing. Board-up shall include 1 layer of 6mil poly sheeting on the exterior side of the board-up when necessary for protection from rain/water.
- Asbestos Containing Acoustical Plaster Ceilings are a typical condition within Fairview School.
   Abatement contractor responsible for the careful installation and disassembly of window opening board up to not damage ceiling plaster. Utilize Armarflex or other soft barrier between board-up and ceiling plaster.
- 3. Installation and disassembly of window opening board up shall only be performed by IDPH licensed Ashestos Workers
- 4. The Abatement Contractor is expected to maintain board-up of up to 60 windows during the overall window replacement schedule.
- 5. Window Contractor responsible for the installation of new windows with board up in place. Abatement contractor shall coordinate with window contractor as to the exact placement of window opening board up to not encumber or restrict installation of new windows.

## SCHEDULE:

The work is scheduled for RPS205 Summer Break 2017, as follows:

NOTE: The exact start and stop dates may be modified for coordination purposes, however time frames to complete each abatement area shall not be exceeded.

	APPROXIMATE ABATEMENT SCHEDULE		
START DATE	END DATE	LOCATION	
5/30/2017	6/9/2017	Interior Asbestos Abatement Boiler Room (ASB-1)	
6/1/2017	6/1/17	Exterior Asbestos Abatement Mock-up Location	
6/5/2017	6/10/17	Exterior Asbestos Abatement Rooms 8, 4, 2, 1	
6/12/2017	6/17/17	Exterior Asbestos Abatement Rooms 3, 5, 7, 9, West Toilets, L.R.E. room, Test Room, Speech Room, Eval. Room, Room 11	
6/19/2017	6/24/17	Exterior Asbestos Abatement Rooms 13, 15, 17, 19, 21, East Toilets	
6/26/2017	7/1/17	Exterior Asbestos Abatement Rooms 20, 18, 16, 14, 12, Lower Level Storage (Alt. 2) Boiler room (Alt 3), Faculty Room, and Small Store Room	
7/3/2017	7/8/17	Exterior Asbestos Abatement Gymnasium (Alt. 1), Principal's office, Toilet, and Conference Room	
7/10/2017	7/15/17	Exterior Asbestos Abatement Main Office, Library, and Family Support Office	

The Exterior Window Abatement is expected to start June 5, 2017. The Abatement Contractor is expected to remove 12 - 15 windows per day. The specific sequencing of the work may be modified to suit construction schedule..

		DF	RAWING HISTORY	
NO.	DATE	DRAWN BY:	CHECKED BY:	REMARKS
1	03/27/17	M. Wyco	D. Juneau	Issued For Bid
2				
3				

Rockford Public Schools 501 7th Street Rockford, Illinois 61104 Asbestos Abatement Fairview Early Childhood Center 512 Fairview avenue Rockford, Illinois 61108

> John Dobby IDPH # : 100-9261

GENERAL NOTES

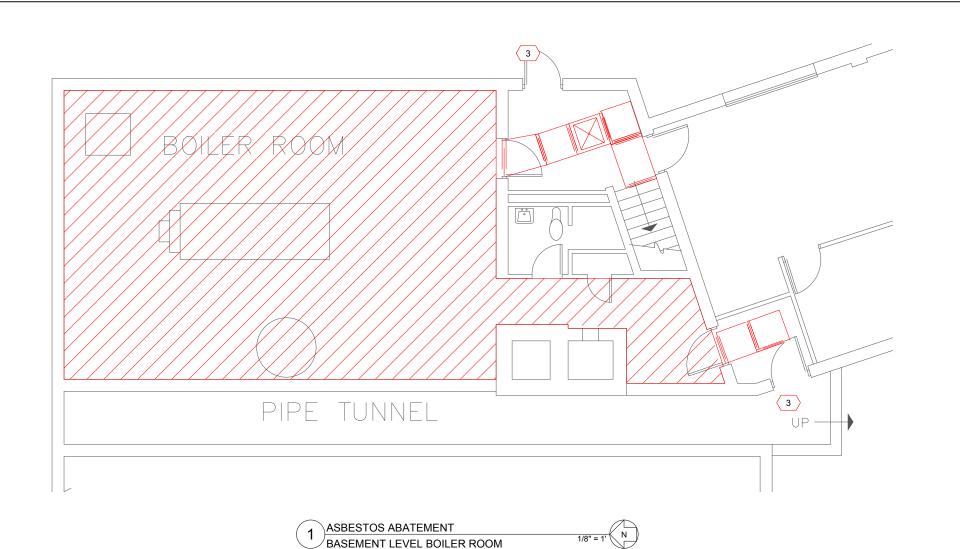
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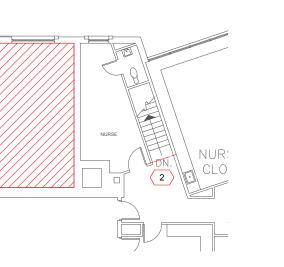
DESIGNER SIGNATURE

Carnow, Conibear & Assoc., Ltd. Environmental Consulting Services 600 W. Van Buren St., Suite 500, Chicago, IL 60607 t: 312.782.4486 f: 312.782.5145 CCA PROJECT NO.
A139670092

DATE:
March 27, 2017







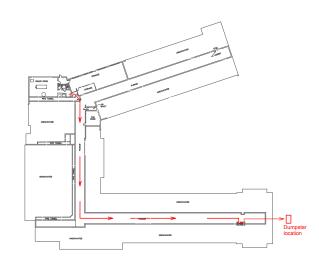
ASBESTOS ABATEMENT
FIRST FLOOR BOILER ROOM

DRAWING HISTORY

DATE

03/27/17

NAE



3 ASBESTOS WASTE ROUTE
BASEMENT LEVEL BOILER ROOM

SHEET TITLE:



DRAWN BY: CHECKED BY: REMARKS

M. Wyco

D. Juneau

Issued For Bid

Rockford Public Schools
501 7th Street
Rockford, Illinois 61104

CLIENT:

PROJECT NAME: Asbestos Abatement
Fairview Early Childhood Center
512 Fairview avenue
Rockford, Illinois 61108

John Dobby IDPH #: 100-9261 ASBESTOS ABATEMENT HOT WATER BOILER ROOM

HOT WATER BOILER RO

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from the boiler room.
 All work per all applicable IDPH, IEPA and OSHA regulations.
 Abatement Contractor to box out and protect with plywood sheeting any boiler room equipment or electrical panels from

ASBESTOS ABATEMENT SCOPE OF WORK:

1. Removal and disposal of thermal system insulation, including boiler, tank, pipe, and breeching insulation, and boiler gaskets

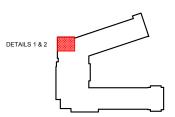
damage or exposure to asbestos or water.

## SCHEDULE:

 Abatement Work to be conducted from May 30, 2017 to June 9, 2017.

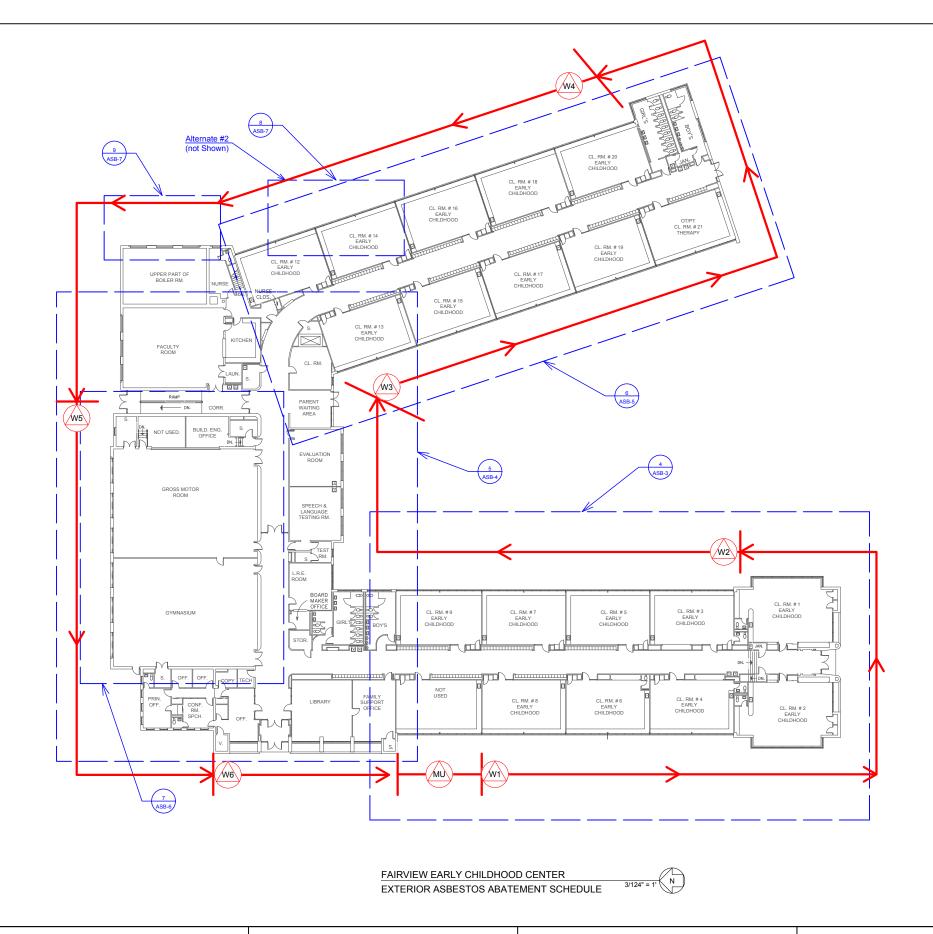
ASBESTOS ABATEMENT KEYNOTES	
	Worker decontamination unit.
	Waste decontamination unit.
NAE	Negative Air Exhaust
1	Separation barrier per IDPH 855.430(a)
2	Separation barrier per IDPH 855.430(b) (with lockable door)
3	Contractor to secure door and control access
	Asbestos Abatement Gross Removal Area

## **KEY PLAN - FIRST FLOOR:** N ←



CCA PROJECT NO.
A139670092

March 27, 2017
SHEET NO.



- Exterior removal and disposal of existing exterior window assemblies including the frames, glass blocks, interior window treatments, and all asbestos-containing interior and exterior perimeter caulk, glazing compounds and putty.
- All work per Specification Section 02132 and all applicable IDPH, IEPA and OSHA regulations.

	EXTERIOR ASBESTOS ABATEMENT / WINDOW DEMOLITION APPROXIMATE WORK SCHEDULE:		
TAG	TAG START NOTES		
MU	6/1/2017	Mock-up Location	
W1	6/5/2017	Rooms 8, 6, 4, 2, 1	
W2	6/12/2017	Rooms 3, 5, 7, 9, West Toilets, L.R.E. room, Test Room, Speech Room, Eval. Room, Room 11	
W3	6/19/2017	Rooms 13, 15, 17, 19, 21, East Toilets, Lower Level Storage (Alt. 2)	
W4	6/26/2017 Rooms 20, 18, 16, 14, 12, Boiler room (Alt 3) , Faculty Room, and Small Store Room		
W5	7/3/2017	Gymnasium (Alt. 1), Principal's office, Toilet, and Conference Room	
W6	7/10/2017	Main Office, Library, and Family Support Office	

		DI	RAWING HISTORY		С
NO.	DATE	DRAWN BY:	CHECKED BY:	REMARKS	
1	03/27/17	M. Wyco	D. Juneau	Issued For Bid	
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Rockford Public Schools 501 7th Street Rockford, Illinois 61104 Asbestos Abatement Fairview Early Childhood Center 512 Fairview avenue Rockford, Illinois 61108

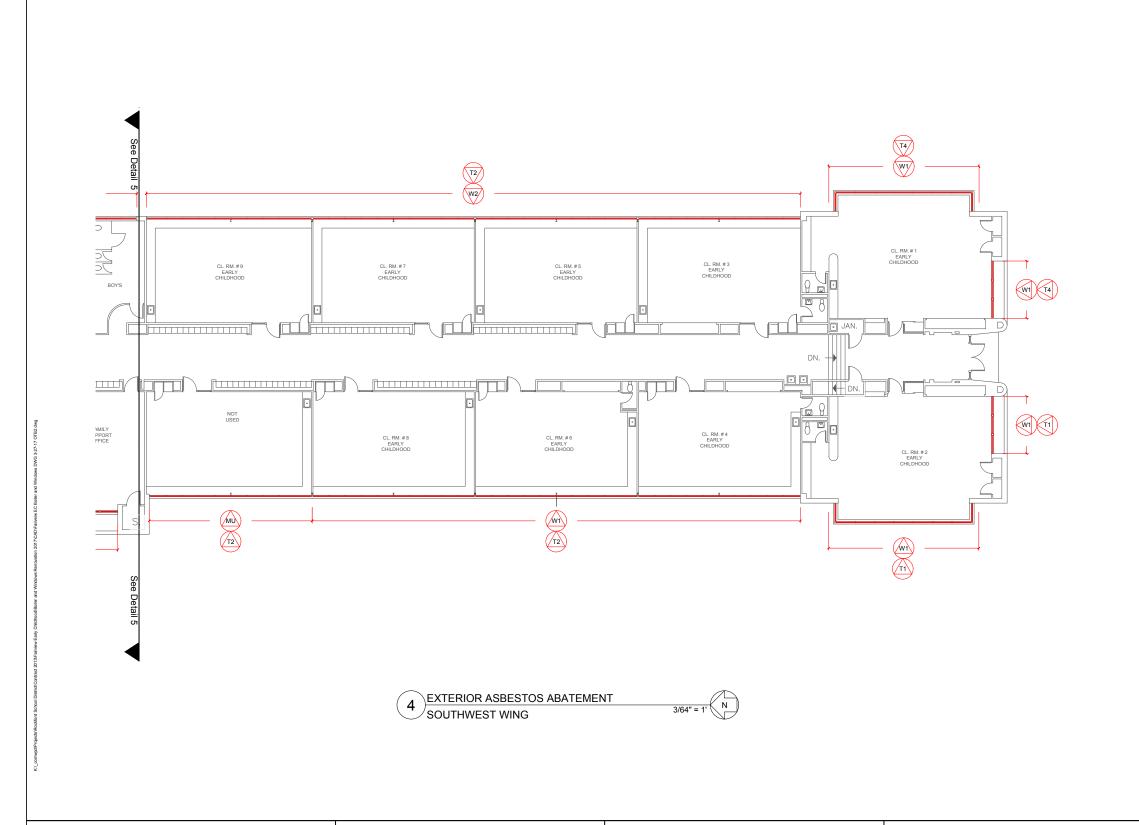
> John Dobby IDPH #: 100-9261

ASBESTOS WINDOW ABATEMENT / DEMOLITION BUILDING EXTERIOR

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A139670092

DATE:
March 27, 2017

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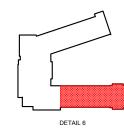


- Exterior removal and disposal of existing exterior window assemblies including the frames, glass blocks, interior window treatments, and all asbestos-containing interior and exterior perimeter caulk, glazing compounds and putty.
- 2. All work per Specification Section 02132 and all applicable IDPH, IEPA and OSHA regulations.

	EXTERIOR ASBESTOS ABATEMENT / WINDOW DEMOLITION APPROXIMATE WORK SCHEDULE:		
TAG	START DATE	NOTES	
MU	6/1/2017	Mock-up Location	
W1	6/5/2017 Rooms 8, 6, 4, 2, 1		
W2	6/12/2017	Rooms 3, 5, 7, 9, West Toilets, L.R.E. room, Test Room, Speech Room, Eval. Room, Room 11	

	EXTERIOR ASBESTOS ABATEMENT / WINDOW DEMOLITION WINDOW TYPE KEY NOTES:		
TAG	NOTES		
T1	Base Bid Work - Frame window / ACM Plaster - see ASB-8, Detail B1		
T2	Base Bid Work - Glass Block window / ACM Plaster - see ASB-8, Detail B2		
T4	Base Bid Work - Frame window / non-ACM Plaster - see ASB-8, Detail B4		

KEY PLAN - FIRST FLOOR: N ←



		DI	RAWING HISTORY	
NO.	DATE	DRAWN BY:	CHECKED BY:	REMARKS
1	03/27/17	M. Wyco	D. Juneau	Issued For Bid
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Rockford Public Schools 501 7th Street Rockford, Illinois 61104 Asbestos Abatement Fairview Early Childhood Center 512 Fairview avenue Rockford, Illinois 61108

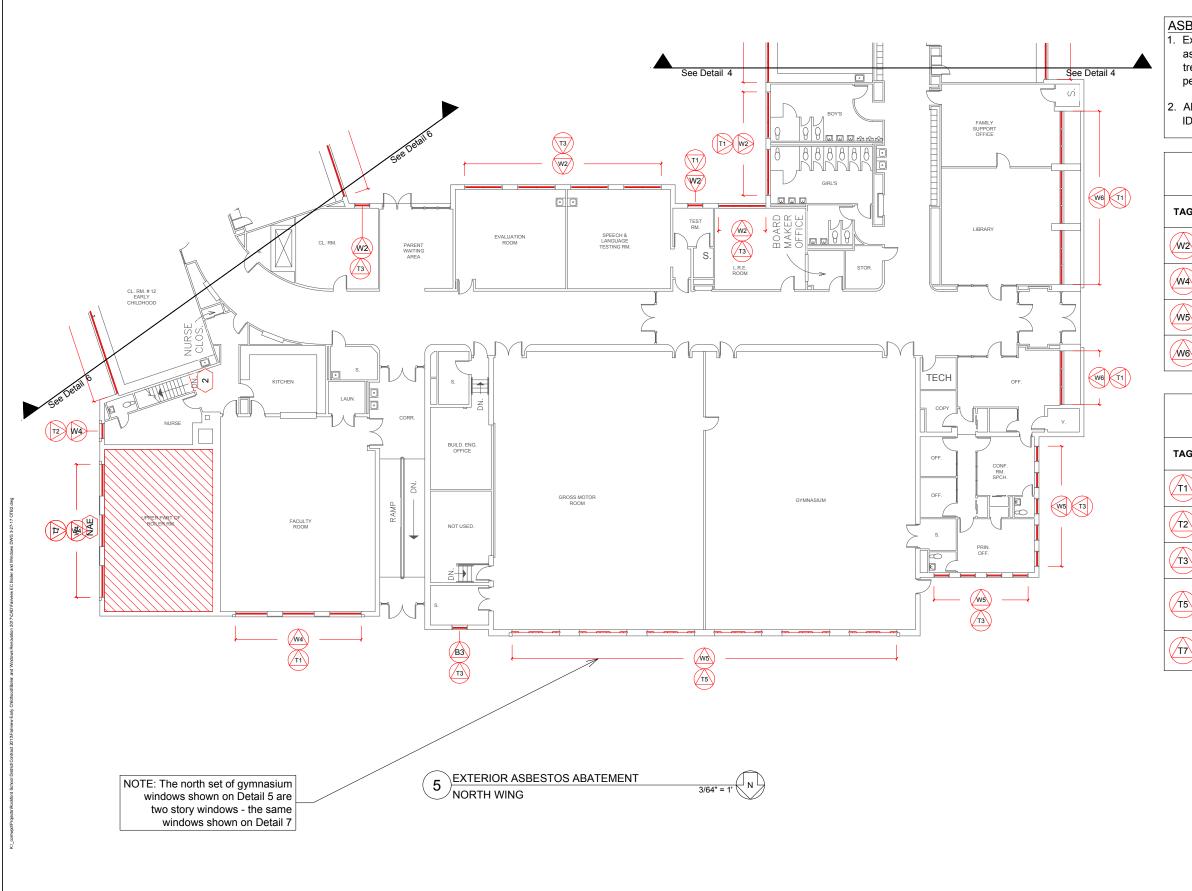
> John Dobby IDPH #: 100-9261

ASBESTOS WINDOW ABATEMENT / DEMOLITION BUILDING EXTERIOR

Carnow, Conibear & Assoc., Ltd. Environmental Consulting Services 600 W. Van Buren St., Suite 500, Chicago, IL 60607 t: 312.782.4486 f: 312.782.5145 www.ccaltd.com CCA PROJECT NO.
A139670092

DATE:
March 27, 2017

CARNOW CONIBEAR



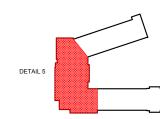
- Exterior removal and disposal of existing exterior window assemblies including the frames, glass blocks, interior window treatments, and all asbestos-containing interior and exterior perimeter caulk, glazing compounds and putty.
- 2. All work per Specification Section 02132 and all applicable IDPH, IEPA and OSHA regulations.

EXTERIOR ASBESTOS ABATEMENT / WINDOW DEMOLITION APPROXIMATE WORK SCHEDULE:			
TAG	START DATE	NOTES	
W2	6/12/2017	Rooms 3, 5, 7, 9, West Toilets, L.R.E. room, Test Room, Speech Room, Eval. Room, Room 11	
W4	6/26/2017	Rooms 20, 18, 16, 14, 12, Lower Level Storage (Alt. 2), Boiler room (Alt 3), Faculty Room, and Small Store Room	
W5	7/3/2017	Gymnasium (Alt. 1), Principal's office, Toilet, and Conference Room	
W6	7/10/2017	Main Office, Library, and Family Support Office	

	WINDOW DEMOLITION WINDOW TYPE KEY NOTES:		
TAG	NOTES		
T1	Base Bid Work - Frame window / ACM Plaster - see ASB-8, Detail B1		
T2	Base Bid Work - Glass Block window / ACM Plaster - see ASB-8, Detail B2		
T3	Base Bid Work - Frame window / non-ACM Plaster - see ASB-8, Detail B3		
T5	Alternate No. 1 - Gymnasium Windows including South Clerestory Windows (Clerestory Windows not shown on this sheet. See ASB-6) Glass Block window / ACM Plaster - see ASB-8, Detail B2		
<u></u>	Alternate No. 3 - Boiler Room Windows Frame window / non-ACM Hard Plaster - see ASB-8, Detail B3		

**EXTERIOR ASBESTOS ABATEMENT /** 

## KEY PLAN - FIRST FLOOR: N ←



		DI	RAWING HISTORY	
NO.	DATE	DRAWN BY:	CHECKED BY:	REMARKS
1	03/27/17	M. Wyco	D. Juneau	Issued For Bid
2				
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Rockford Public Schools 501 7th Street Rockford, Illinois 61104 PROJECT NAME: Asbestos Abatement
Fairview Early Childhood Center
512 Fairview avenue
Rockford, Illinois 61108

John Dobby IDPH #: 100-9261

PROJECT DESIGNER

ood Center ASBESTOS Wenue 61108

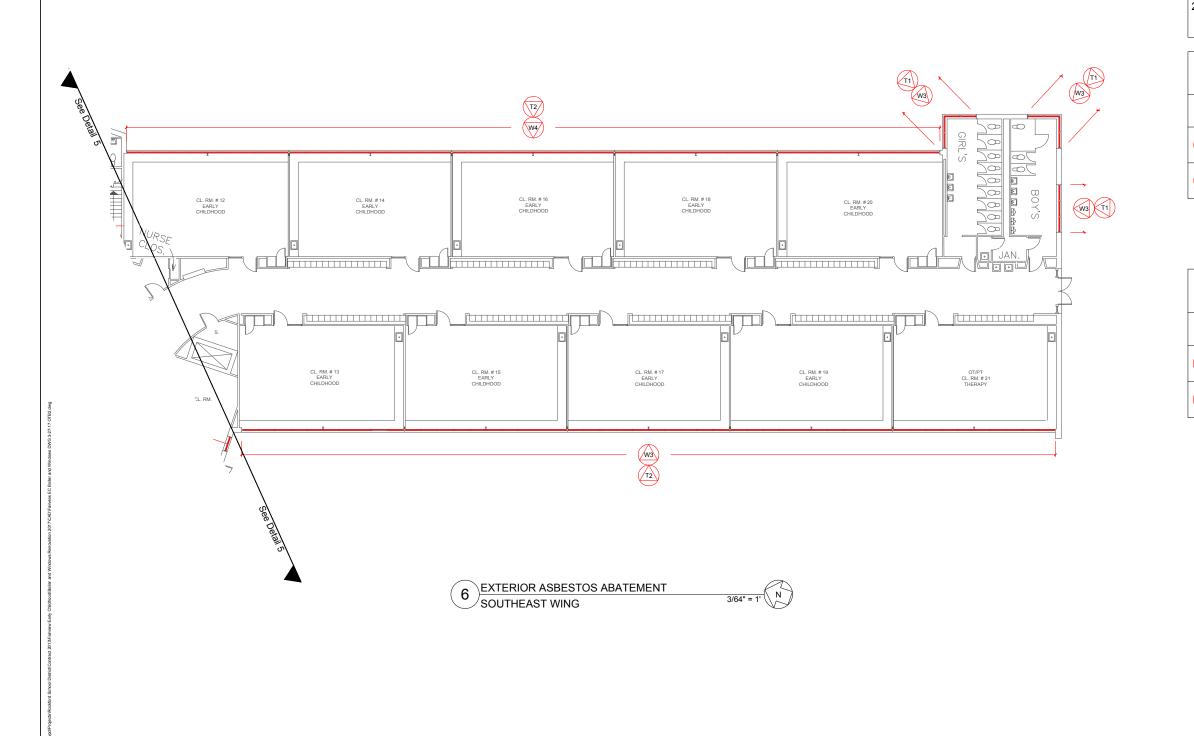
SHEET TITLE:

ASBESTOS WINDOW ABATEMENT / DEMOLITION
BUILDING EXTERIOR

Carnow, Conibear & Assoc., Ltd. Environmental Consulting Services 600 W. Van Buren St., Suite 500, Chicago, IL 60607 t: 312.782.4486 f: 312.782.5145 www.ccaltd.com CCA PROJECT NO.
A139670092

DATE:
March 27, 2017

CARNOW ASB-4

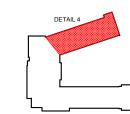


- Exterior removal and disposal of existing exterior window assemblies including the frames, glass blocks, interior window treatments, and all asbestos-containing interior and exterior perimeter caulk, glazing compounds and putty.
- All work per Specification Section 02132 and all applicable IDPH, IEPA and OSHA regulations.

EXTERIOR ASBESTOS ABATEMENT / WINDOW DEMOLITION APPROXIMATE WORK SCHEDULE:					
TAG	START DATE	NOTES			
W3	6/19/2017	Rooms 13, 15, 17, 19, 21, and East Toilets.			
W4	Rooms 20, 18, 16, 14, 12, Lower Level Storage (Alt. 2), Boiler room (Alt 3) , Faculty Room, and Small Store Room				

	EXTERIOR ASBESTOS ABATEMENT / WINDOW DEMOLITION WINDOW TYPE KEY NOTES:					
TAG	NOTES					
T1	Base Bid Work - Frame window / ACM Plaster - see ASB-8, Detail B1					
T2	Base Bid Work - Glass Block window / ACM Plaster - see ASB-8, Detail B2					

KEY PLAN - FIRST FLOOR: N ←



DRAWING HISTORY						
NO.	DATE	DRAWN BY:	CHECKED BY:	REMARKS		
1	03/27/17	M. Wyco	D. Juneau	Issued For Bid		
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Rockford Public Schools 501 7th Street Rockford, Illinois 61104

CLIENT:

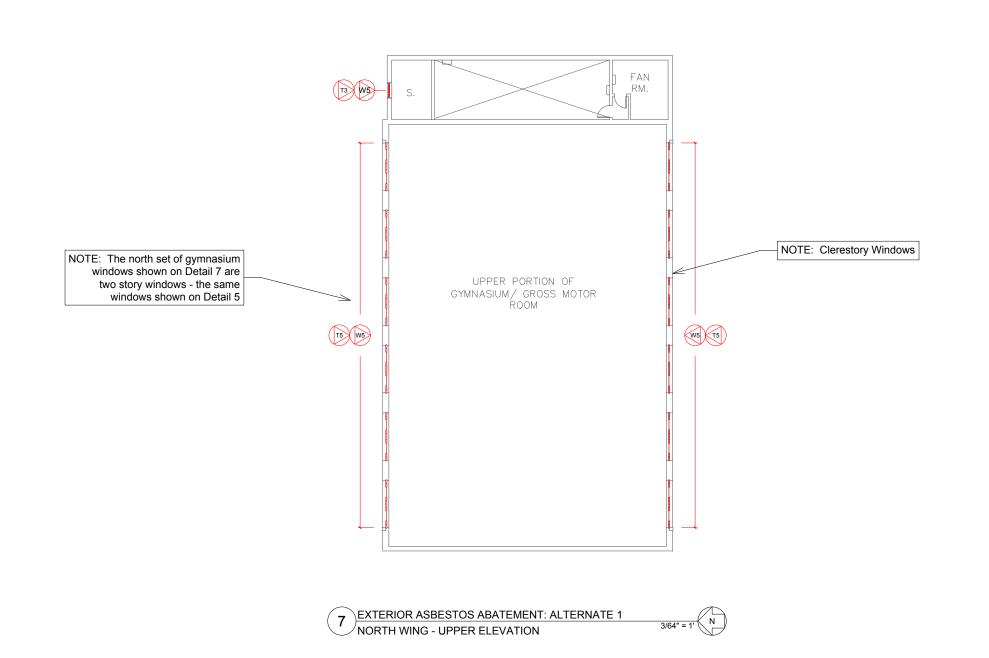
PROJECT NAME: Asbestos Abatement
Fairview Early Childhood Center
512 Fairview avenue
Rockford, Illinois 61108

John Dobby IDPH #: 100-9261 ASBESTOS WINDOW ABATEMENT / DEMOLITION
BUILDING EXTERIOR

Carnow, Conibear & Assoc., Ltd. Environmental Consulting Services 600 W. Van Buren St., Suite 500, Chicago, IL 60607 t: 312.782.4486 f: 312.782.5145 www.ccaltd.com CCA PROJECT NO.
A139670092

DATE:
March 27, 2017

CARNOW CONIBEAR ASB-5

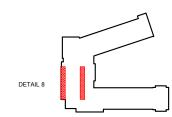


- Exterior removal and disposal of existing exterior window assemblies including the frames, glass blocks, interior window treatments, and all asbestos-containing interior and exterior perimeter caulk, glazing compounds and putty.
- 2. All work per Specification Section 02132 and all applicable IDPH, IEPA and OSHA regulations.

EXTERIOR ASBESTOS ABATEMENT / WINDOW DEMOLITION APPROXIMATE WORK SCHEDULE:				
TAG START NOTES				
W5	7/3/2017	Gymnasium (Alt. 1), Principal's office, Toilet, and Conference Room		

EXTERIOR ASBESTOS ABATEMENT / WINDOW DEMOLITION WINDOW TYPE KEY NOTES:					
TAG	NOTES				
T3	Base Bid Work - Frame window / non-ACM Plaster - see ASB-8, Detail B3				
T5	Alternate No. 1 - Gymnasium Windows including South Clerestory Windows (Clerestory Windows not shown on this sheet. See ASB-6) Glass Block window / ACM Plaster - see ASB-8, Detail B2				

## $\underline{\mathsf{KEY}\,\mathsf{PLAN}}\,\text{-}\,\mathsf{UPPER}\,\,\mathsf{ELEVATION}\colon\,\mathsf{N} \leftarrow$



DRAWING HISTORY						
NO.	DATE	DRAWN BY:	CHECKED BY:	REMARKS		
1	03/27/17	M. Wyco	D. Juneau	Issued For Bid		
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3						

Rockford Public Schools 501 7th Street Rockford, Illinois 61104 Asbestos Abatement
Fairview Early Childhood Center
512 Fairview avenue
Rockford, Illinois 61108

John Dobby IDPH #: 100-9261

PROJECT DESIGNER

ASBESTOS WINDOW ABATEMENT / DEMOLITION BUILDING EXTERIOR - UPPER ELEVATION

Carnow, Conibear & Assoc., Ltd. Environmental Consulting Services 600 W. Van Buren St., Suite 500, Chicago, IL 60607 t: 312.782.4486 f: 312.782.5145 www.ccaltd.com DATE: March 27, 2017

CARNOW CONIBEAR ASB-6

EXTERIOR ASBESTOS ABATEMENT: ALTERNATE 2

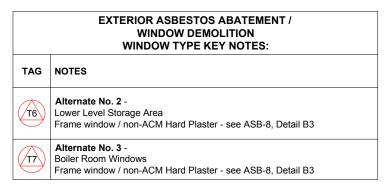
LOWER LEVEL STORAGE AREA



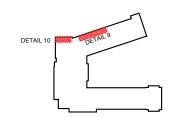
## ASBESTOS ABATEMENT SCOPE OF WORK:

- Exterior removal and disposal of existing exterior window assemblies including the frames, glass blocks, interior window treatments, and all asbestos-containing interior and exterior perimeter caulk, glazing compounds and putty.
- 2. All work per Specification Section 02132 and all applicable IDPH, IEPA and OSHA regulations.

	EXTERIOR ASBESTOS ABATEMENT / WINDOW DEMOLITION APPROXIMATE WORK SCHEDULE:					
TAG START NOTES						
W4	6/26/2017	Rooms 20, 18, 16, 14, 12, Lower Level Storage (Alt. 2), Boiler room (Alt 3), Faculty Room, and Small Store Room				



## **KEY PLAN - FIRST FLOOR:** N ←



DRAWING HISTORY					CLIENT:
NO.	DATE	DRAWN BY:	CHECKED BY:	REMARKS	
1	03/27/17	M. Wyco	D. Juneau	Issued For Bid	
2					

**Rockford Public Schools** 501 7th Street Rockford, Illinois 61104

PROJECT NAME: **Asbestos Abatement** Fairview Early Childhood Center 512 Fairview avenue Rockford, Illinois 61108

> John Dobby IDPH #: 100-9261

PROJECT DESIGNER

BOILER ROOM

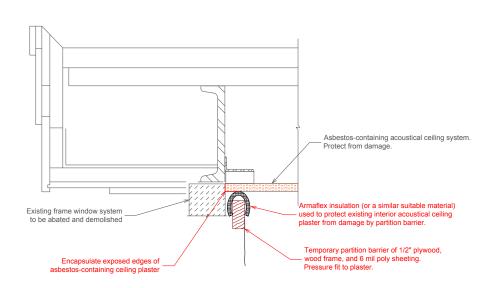
**ASBESTOS ABATEMENT / DEMOLITION BUILDING EXTERIOR** 

Carnow, Conibear & Assoc., Ltd. 600 W. Van Buren St., Suite 500, Chicago, IL 60607 t: 312.782.4486 f: 312.782.5145 www.ccaltd.com

A139670092 March 27, 2017

ASB-7

CARNOW CONIBEAR



Asbestos-containing acoustical ceiling system. Protect from damage Armaflex insulation (or a similar suitable material) used to protect existing interior acoustical ceiling Existing glass block window system to be abated and demolished plaster from damage by partition barrier. Temporary partition barrier of 1/2" plywood, - wood frame, and 6 mil poly sheeting. Pressure fit to plaster. Encapsulate exposed edges of

FRAME WINDOW WITH ACM ACOUSTICAL PLASTER WINDOW PARTITION BARRIER DETAIL

GLASS BLOCK WINDOW WITH ACM ACOUSTICAL PLASTER  $^{\prime}$ WINDOW PARTITION BARRIER DETAIL

Non-asbestos hard plaster ceiling system. Protect from damage. Existing window system to be abated and demolished Temporary partition barrier of 1/2" plywood, wood frame, and 6 mil poly sheeting.

Non-asbestos acoustical ceiling system. Protect from damage naflex insulation (or a similar suitable material) Existing frame exterior window system used to protect existing interior acoustical ceiling plaster from damage by partition barrier. to be abated and demolished Temporary partition barrier of 1/2" plywood, wood frame, and 6 mil poly sheeting. Pressure fit to plaster.

(B3) WINDOW SYSTEM WITH NON-ACM HARD PLASTER  $^\prime$ WINDOW PARTITION BARRIER DETAIL

CLIENT

B4) FRAME WINDOW WITH NON-ACM ACOUSTICAL PLASTER WINDOW PARTITION BARRIER DETAIL

DRAWING HISTORY DATE DRAWN BY: CHECKED BY: REMARKS 03/27/17 M. Wyco D. Juneau Issued For Bid 2

**Rockford Public Schools** 501 7th Street Rockford, Illinois 61104

PROJECT NAME: **Asbestos Abatement** Fairview Early Childhood Center 512 Fairview avenue Rockford, Illinois 61108

> John Dobby IDPH #: 100-9261

**EXTERIOR ASBESTOS ABATEMENT WINDOW PARTITION BARRIER DETAILS** 

Carnow, Conibear & Assoc., Ltd. Environmental Consulting Services 600 W. Van Buren St., Suite 500, Chicago, IL 60607 t: 312.782.4486 f: 312.782.5145 www.ccaltd.com

WINDOW TYPES:

system.

TYPE B1: Frame and panel window system where the existing window frame abuts

interior side of the window system. TYPE B2: Glass Block window system where the existing glass blocks abuts

interior side of the window system. TYPE B3: Window system where the existing window

interior side of the window system. TYPE B4: Frame type window system where the existing

asbestos-containing acoustical plaster on the

asbestos-containing acoustical plaster on the

abuts non-asbestos hardcoat plaster on the

window frame abuts non-asbestos acoustical plaster on the interior side of the window

> A139670092 March 27, 2017

CCA PROJECT NO.

ASB-8

**CARNOW CONIBEAR** 



Typical classroom window



Typical toilet room window



Typical classroom window

DRAWING HISTORY					
NO.	DATE	DRAWN BY:	CHECKED BY:	REMARKS	
1	03/27/17	M. Wyco	D. Juneau	Issued For Bid	
2					
2					

Rockford Public Schools 501 7th Street Rockford, Illinois 61104 Asbestos Abatement
Fairview Early Childhood Center
512 Fairview avenue
Rockford, Illinois 61108

John Dobby IDPH # : 100-9261 REF WIND

SHEET TITLE:

REFERENCE PHOTOGRAPHS

WINDOW / INTERIOR CEILINGS

Carnow, Conibear & Assoc., Ltd.
Environmental Consulting Services
600 W. Van Buren St., Suite 500, Chicago, IL 60607
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CCA PROJECT NO.
A139670092

DATE:
March 27, 2017

CARNOW ASB-9