

ADDENDUM



Public Building Commission of Chicago • Richard J. Daley Center • 50 West Washington, Room 200 • Chicago, Illinois 60602 • Tel: 312-744-3090 • Fax: 312-744-8005

ADDENDUM NO.: 1
PROJECT NAME: CPS 2015 Air-Conditioning Program – Region B Project
PROJECT NOS.: 05902, 05912, 05916, 05917, 05919, 05930, 05936, 05938, 05939, 05940, 05941
CONTRACT NO.: C1570B
DATE OF ISSUE: June 10, 2015

NOTICE OF CHANGES, MODIFICATIONS, OR CLARIFICATIONS TO CONTRACT DOCUMENTS

The following changes, modifications, or clarifications are hereby incorporated and made an integral part of the Contract Documents. Unless clearly expressed otherwise by this Addendum, all terms and conditions defined in the original Contract Documents shall continue in full force and effect and shall have the same meaning in this Addendum.

ITEM NO. 1: CHANGE TO BID OPENING DATE AND TIME

1. None.

ITEM NO. 2: CLARIFICATION TO REFERENCES IN ORIGINAL BID DOCUMENTS

1. None.

ITEM NO. 3: CLARIFICATION TO PROJECT NAME AND TITLE

1. None.

ITEM NO. 4: REVISIONS TO BOOK 1: Project Information, Instructions to Bidders, and Execution Documents

1. Remove Saucedo Elementary School from Region B Project.
Remove Page 15 of 48, Bid Form and **Replace With** revised Addendum Attachment A – Revised Bid Form.
2. **Remove** Page 42-46, Exhibit #2 – Insurance Requirements and **Replace With** revised Exhibit #2 – Insurance Requirements.
3. **Remove** Page 47 of 48, Exhibit #3 - Project Community Area Map and **Replace With** revised Exhibit #3 – Project Community Area Map.

ITEM NO. 5: REVISIONS TO BOOK 2: Standard Terms and Conditions for Construction Contracts

1. None.

ITEM NO. 6: REVISIONS TO BOOK 3, DIVISIONS 02 - 49 SPECIFICATION SECTIONS

1. **Delete** Specification Section 23 81 16 “Window Mounted Room Air Conditioners” and **replace** with modified section, Control Revision B_06/08/15.

ITEM NO. 7: REVISIONS TO DRAWING SHEETS

1. GENERAL – AVONDALE-LOGANDALE, GALILEO, HANSON PARK, McCORMICK, MONROE, MOOSE, NIXON, PULASKI, SALAZAR AND SPRY, drawing sheet “E5.0 - ELECTRICAL PARTIAL ONE-LINE RISER DIAGRAM, SCHEDULES AND DETAILS”
 - a. **Add** General Note No. 2 to read, “All 200A panels shown to be rated for 22k AIC; all 400A panels shown to remain 42k AIC.”
2. AVONDALE - LOGANDALE, **Delete** drawing sheet “E5.0 – ELECTRICAL PARTIAL ONE-LINE RISER DIAGRAM, SCHEDULES AND DETAILS;” **Replace** with drawing sheet “E5.0R - ELECTRICAL PARTIAL ONE-LINE RISER DIAGRAM, SCHEDULES AND DETAILS,” attached.
3. McCORMICK, **Delete** drawing sheet “E1.1 – BASEMENT AND FIRST FLOOR PLAN;” **Replace** with drawing sheet “E1.1R - BASEMENT AND FIRST FLOOR PLAN,” attached.
4. MONROE, **Delete** drawing sheet “E1.0 – BASEMENT FLOOR PLAN;” **Replace** with drawing sheet “E1.0R - BASEMENT FLOOR PLAN,” attached.
5. MONROE, **Delete** drawing sheet “E1.1 – FIRST FLOOR PLAN;” **Replace** with drawing sheet “E1.1R - FIRST FLOOR PLAN,” attached.
6. MONROE, **Delete** drawing sheet “E1.2 – SECOND FLOOR PLAN;” **Replace** with drawing sheet “E1.2R - SECOND FLOOR PLAN,” attached.
7. MONROE, **Delete** drawing sheet “E1.3 – THIRD FLOOR PLAN;” **Replace** with drawing sheet “E1.3R - THIRD FLOOR PLAN,” attached.
8. MOOS, drawing sheet “A.0 – BASEMENT FLOOR PLAN”
 - a. At Classroom 001, **Revise** location of new window AC unit and associated work (security screen, window shade, conduit, keyed switch, etc.) from west wall to north wall; second window unit from west side.
 - b. At Classroom 002, **Revise** location of new window AC unit and associated work (security screen, window shade, conduit, keyed switch, etc.) from east wall to north wall; first window unit from east side.
9. MOOS, drawing sheet “E1.0 – BASEMENT FLOOR PLAN”
 - a. At Classroom 001, **Revise** location of new window AC unit and associated work (conduit, keyed switch, etc.) from west wall to north wall; second window unit from west side.
 - b. At Classroom 002, **Revise** location of new window AC unit and associated work (conduit, keyed switch, etc.) from east wall to north wall; first window unit from east side.
10. PULASKI, **Delete** drawing sheet “E5.1 – ELECTRICAL PARTIAL ONE-LINE RISER DIAGRAM, SCHEDULES AND DETAILS;” **Replace** with drawing sheet “E5.1R - ELECTRICAL PARTIAL ONE-LINE RISER DIAGRAM, SCHEDULES AND DETAILS,” attached.
11. SAUCEDO, **Delete** the following drawing sheets for the entire School:
 - a. G1.0 – TITLE SHEET AND DRAWING INDEX
 - b. A1 – GENERA DETAILS, NOTES AND SCHEDULES
 - c. A1.1 – FIRST FLOOR PLAN

- d. A1.2 – SECOND FLOOR PLAN
 - e. A1.3 – THIRD FLOOR PLAN
 - f. E0.0 – GENERAL NOTES, ABBREVIATION LIST AND SYMBOLS LIST
 - g. E0.1 – GENERAL NOTES, ABBREVIATION LIST AND SYMBOLS LIST
 - h. E0.2 – GENERAL NOTES, ABBREVIATION LIST AND SYMBOLS LIST
 - i. E1.1 – FIRST FLOOR PLAN
 - j. E1.2 – FIRST FLOOR PLAN
 - k. E1.3 – FIRST FLOOR PLAN
 - l. E5.0 – ELECTRICAL PARTIAL ONE-LINE RISER DIAGRAM, SCHEDULES, AND DETAILS
 - m. E5.1 – ELECTRICAL PARTIAL ONE-LINE RISER DIAGRAM, SCHEDULES, AND DETAILS
12. SPRY, drawing sheet A1.2 – SECOND FLOOR PLAN
- a. At Classroom 206-South, **Revise** room number to read “208.”
 - b. At Classrooms 212, 213 and 214, **Revise** AC unit tags reading “N-3” to read “N-1.”
13. SPRY, drawing sheet A1.3 – THIRD FLOOR PLAN
- a. At Classroom 311, **Revise** room number to read “313.”

ITEM NO. 8: REQUESTS FOR INFORMATION

1. **Statement:** What are the as-built requirements for this contract for each project and school?
Response: As indicated in Book-2, Section 15.04, Page 72, the requirements for “as-Built Drawings” apply for each Project Region and individual school.
2. **Statement:** Will the Generals be bidding the electrical also or just the approved electrical contractors.
Response: Both General and Electrical contractors alike will have the opportunity to bid the scope as described in Book 3 and drawings within the same pre-qualified pool.
3. **Statement:** What is the estimated construction cost/budget or range for this project?
Response: Refer to Book 1, Section II. Project Information, R. Commission’s Right to Award Fewer than all Schools in Project.
4. **Statement:** Book 2, Section 7.03.1.c indicates a Safety Rep with OSHA30 credentials must be on site at the “project” whenever work is ongoing. Should the proposer plan on having a Safety Rep for each school within each Region if work is occurring concurrently?
Response: A Safety Rep is not required for each school, but one is required by region.
5. **Statement:** Please confirm the Project Community Area Hiring Maps match the Region Maps for the work in each of the three regions.
Response: Refer to the Project Community Area Map attached to this addendum.
6. **Statement:** Please confirm Window A/C Contractor is responsible for the demolition, haul off, and environmental work related to removal/modification of existing windows for installation of new window panels.
Response: The described work is not the responsibility of the General Contractor/Electrical Contractor.
7. **Statement:** Is there a self-performance requirement for the Local Business?
Response: No, there are no self-performance requirements for Local Businesses.
8. **Statement:** Specification 074247 Composite infill panels..... Is this specification for reference only? Aren’t these being provided through a separate contract?
Response: This specification is for reference only.
9. **Statement:** What will the protocol be for running power in exposed areas? Conduit or finished metal surface raceway (wiremould)?

Response: Refer to General Notes on electrical drawings for reference to wiremold for power routing to AC's.

10. **Statement:** How many schools will be removed from the PBC Scope and separately bid by CPS?

Response: One. Saucedo Elementary has been removed from Region B Project scope of work. However, please refer to Book 1, Section II. Project Information, R. Commission's Right to Award Fewer than all Schools in Project.

11. **Statement:** Are the projects City Funded, or Non City Funded?

Response: Please refer to Book 1, Section II. Project Information, A. General Information, #17.

List of Attachments and Drawings:

1. This Addendum includes the following attached Documents and Specification Sections:
 - a. Book-1, Addendum Attachment A - Revised Bid Form
 - b. Book-1, Exhibit #2 Insurance Requirements
 - c. Book-1, Exhibit #3 Project Community Area Map
 - d. Book-3, Specification 23 81 16 WINDOW-MOUNTED ROOM AIR-CONDITIONERS

2. This Addendum includes the following attached Drawing Sheets:
 - a. AVONDALE-LOGANDALE E5.0 – ELECTRICAL PARTIAL ONE-LINE RISER DIAGRAM, SCHEDULES AND DETAILS
 - b. McCORMICK E1.1 – BASEMENT AND FIRST FLOOR PLANS
 - c. MONROE E1.0 – BASEMENT FLOOR PLAN
 - d. MONROE E1.1 – FIRST FLOOR PLAN
 - e. MONROE E1.2 – SECOND FLOOR PLAN
 - f. MONROE E1.3 – THIRD FLOOR PLAN
 - g. PULASKI E5.1 – ELECTRICAL PARTIAL ONE-LINE RISER DIAGRAM, SCHEDULES AND DETAILS

END OF ADDENDUM NO.1

ADDENDUM ATTACHMENT A – REVISED BID FORM

B. BID FORM – REGION B PROJECT

REGION B PROJECT		
LINE	ITEM	AMOUNT
1.	Avondale/Logandale Elementary	\$
2.	Galileo Elementary	\$
3.	Hanson Park Elementary	\$
4.	McCormick Elementary	\$
5.	Monroe Elementary	\$
6.	Moos Elementary	\$
7.	Nixon Elementary	\$
8.	Pulaski Elementary	\$
9.	Salazar Elementary	\$
10.	Spry Elementary	\$
11.	TOTAL FOR ALL SCHOOLS	\$
12.	COMMISSION'S CONTRACT CONTINGENCY	\$ 50,000.00
13.	TOTAL BASE BID – REGION B PROJECT (11+12)	\$
AWARD CRITERIA FIGURE –REGION B PROJECT (See Section V. Proposal Support Document, line 15 of Award Criteria Figure)		\$

SURETY: Please specify full legal name and address of Surety.

Project Preference:

(Rank projects in order from Most Preferred to Least Preferred, 1 indicating Most Preferred. If not bidding on a project, indicate 'No Bid'.)

Region A Project _____ Region B Project _____ Region C Project _____

Exhibit 2
Insurance Requirements
Construction Board of Education (CBOE)
CPS 2015 Air Conditioner Program

The Contractor must provide and maintain at Contractor's own expense, the minimum insurance coverage and requirements specified below, insuring all operations related to the Contract. The insurance must remain in effect from the date of the Notice to Proceed until Substantial Completion of the project, during completion of Punch List, as well as any time Contractor returns to perform additional work regarding warranties or for any other purpose, unless otherwise noted below or agreed by the Public Building Commission's Director of Risk Management.

INSURANCE TO BE PROVIDED

1) **Workers' Compensation and Employers Liability (Primary and Umbrella)**

Workers' Compensation Insurance as prescribed by applicable law covering all employees who are to provide a service under this Contract and Employers Liability coverage with limits of not less than \$1,000,000 each accident, illness or disease. Coverage will include a waiver of subrogation as required below.

2) **Commercial General Liability (Primary and Umbrella)**

Commercial General Liability Insurance or equivalent with limits of not less than \$2,000,000 per occurrence for bodily injury, personal injury, and property damage liability. Coverage must include the following: All premises and operations, products/completed operations to be maintained for minimum of two (2) years following project completion, explosion, collapse, underground hazards, defense and contractual liability. Contractor and all subcontractors of every tier **will specifically name** the Public Building Commission of Chicago, the Board of Education of the City of Chicago and the City of Chicago as Additional Insured using the latest version of the ISO CG2010 and CG2037. Additional Insured status will be on a primary, non-contributory basis for any liability arising directly or indirectly from the work, including the two year completed operations periods. Coverage will include a waiver of subrogation as required below.

Subcontractors performing work for Contractor must maintain limits of not less than \$1,000,000 per occurrence with the same terms herein.

3) **Automobile Liability (Primary and Umbrella)**

When any motor vehicles (owned, non-owned and hired) are used in connection with work to be performed, the Contractor must provide Automobile Liability Insurance, with limits of not less than \$1,000,000 per occurrence for bodily injury and property damage. The Public Building Commission of Chicago, the Board of Education of the City of Chicago and the City of Chicago are to be named as Additional Insured on a primary, non-contributory basis.

Subcontractors performing work for Contractor must maintain limits of not less than \$1,000,000 per occurrence with the same terms herein

4) **Contractors Pollution Liability**

Contractors Pollution coverage is required with limits of not less than \$2,000,000 per occurrence for any portion of the services, which may entail, exposure to any pollutants, whether in the course of sampling, remedial work or any other activity under this contract. The contractor pollution liability policy will provide coverage for sums that the insured become legally obligated to pay as loss as a result of claims for bodily injury, property damage and/or clean-up costs caused by any pollution incident arising out of the Work including remediation operations, transportation of pollutants, owned and non-owned disposal sites and any

and all other activities of Contractor and its subcontractors. Pollution incidents will include, but not be limited to, the discharge, dispersal, release or escape of any solid, liquid, gaseous or thermal irritant or contaminant, including but not limited to smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, medical waste, waste materials, lead, asbestos, silica, hydrocarbons and microbial matter, including fungi, bacterial or viral matter which reproduces through release of spores or the splitting of cells or other means, including but not limited to, mold, mildew and viruses, whether or not such microbial matter is living.

The policy will be maintained for a period of three years after final completion and include completed operations coverage. The policy will include the Public Building Commission of Chicago, the Board of Education of the City of Chicago and the City of Chicago, and others as may be required by the Public Building Commission of Chicago, as Additional Insured. These entities must be specifically named and endorsed on the policy. Additional Insured coverage must be on a primary and non-contributory basis for ongoing and completed operations. Coverage will include a waiver of subrogation as required below.

Subcontractors performing work for Contractor must maintain limits of not less than \$1,000,000 per occurrence with the same terms herein. Environmental subcontractors performing for the Contractor must maintain limits of not less than \$1,000,000 per occurrence with the same terms herein.

5) Professional Liability

When Contractor performs professional work in connection with the Agreement, Professional Liability Insurance must be maintained with limits of not less than \$1,000,000 covering acts, errors, or omissions. The policy will include coverage for wrongful acts, including but not limited to errors, acts or omissions, in the rendering or failure to render professional services resulting in a pollution incident. When policies are renewed or replaced, the policy retroactive date must coincide with, or precede the, start of work on the Agreement. Coverage must be maintained for two years after substantial completion. A claims-made policy, which is not renewed or replaced, must have an extended reporting period of two (2) years.

Subcontractors performing professional work for Contractor must maintain limits of not less than \$1,000,000 per occurrence with the same terms herein.

B. **ADDITIONAL REQUIREMENTS**

Contractor must furnish the Public Building Commission Procurement Department, Richard J. Daley Center, Room 200, Chicago, IL 60602, original Certificates of Insurance, or such similar evidence, to be in force on the date of this Contract, and Renewal Certificates of Insurance, or such similar evidence, if any insurance policy has an expiration or renewal date occurring during the term of this Contract. The Contractor must submit evidence of insurance to the Public Building Commission prior to Contract award. The receipt of any certificate does not constitute agreement by the Commission that the insurance requirements in the Contract have been fully met or that the insurance policies indicated on the certificate are in compliance with all Contract requirements. The failure of the Commission to obtain certificates or other insurance evidence from Contractor is not a waiver by the Commission of any requirements for the Contractor to obtain and maintain the specified insurance. The Contractor will advise all insurers of the Contract provisions regarding insurance. Non-conforming insurance does not relieve Contractor of the obligation to provide insurance as specified in this contract. Non-fulfillment of the insurance conditions may constitute a breach of the Contract, and the Commission retains the right to stop work until proper evidence of insurance is provided, or the Contract may be terminated.

The insurance must provide for 30 days prior written notice to be given to the Commission in the event coverage is substantially changed, canceled, or non-renewed.

The Public Building Commission of Chicago reserves the right to obtain copies of insurance policies and records

Any deductibles or self-insured retentions on referenced insurance must be borne by Contractor. All self insurance, retentions and/or deductibles must conform to these requirements.

The Contractor waives and agrees to cause all their insurers to waive their rights of subrogation against the Public Building Commission of Chicago, the Board of Education of the City of Chicago and the City of Chicago, their respective Board members, employees, elected officials, officers, or representatives. The Contractor must require each Subcontractor to include similar waivers of subrogation in favor of the Commission, the Board of Education of the City of Chicago and the City of Chicago.

The insurance coverage and limits furnished by Contractor in no way limit the Contractor's liabilities and responsibilities specified within the Contract or by law.

Any insurance or self-insurance programs maintained by the Public Building Commission of Chicago, the Board of Education of the City of Chicago and the City of Chicago will not contribute with insurance provided by the Contractor under the Contract.

The required insurance to be carried is not limited by any limitations expressed in the indemnification language in this Contract or any limitation placed on the indemnity in this Contract given as a matter of law.

If contractor is a joint venture or limited liability company, the insurance policies must name the joint venture or limited liability company as a Named Insured.

The Contractor must require all subcontractors to provide the insurance required herein, or Contractor may provide the insurance for subcontractors. All subcontractors are subject to the same insurance requirements of Contractor unless otherwise specified in this Contract.

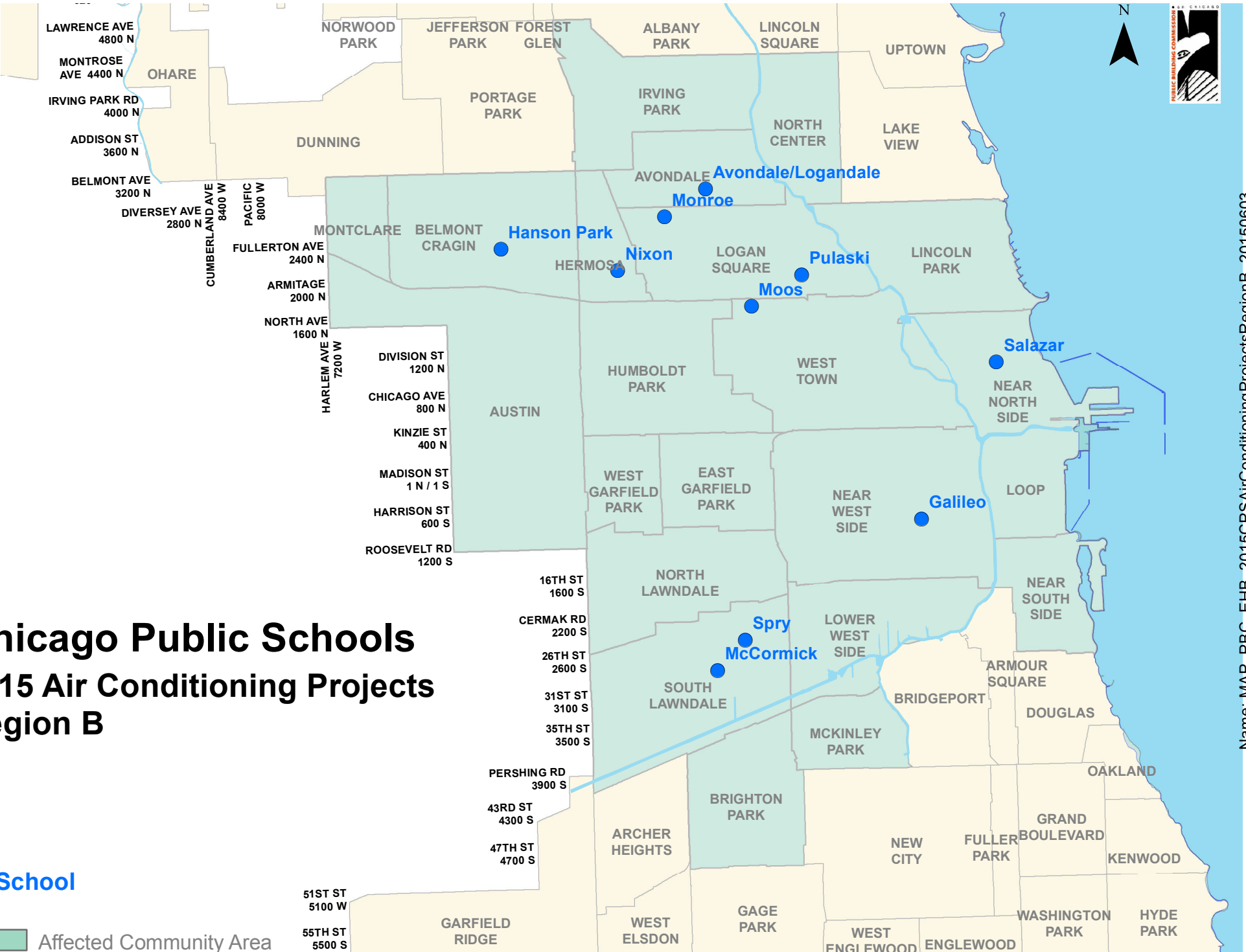
If Contractor or subcontractor desires additional coverage, the party desiring the additional coverage is responsible for the acquisition and cost

Contractor must submit the following at the time of award:

1. Standard ACORD form Certificate of Insurance issued to the Public Building Commission of Chicago as Certificate Holder including:
 - a. All required entities as Additional Insured
 - b. Evidence of waivers of subrogation
 - c. Evidence of primary and non-contributory status
2. All required endorsements including the CG2010 and CG2037

The Public Building Commission's Director of Risk Management maintains the rights to modify, delete, alter or change these requirements.

EXHIBIT 3 - PROJECT COMMUNITY AREA MAP



Chicago Public Schools 2015 Air Conditioning Projects Region B

● School

■ Affected Community Area



SECTION 23 81 16

WINDOW-MOUNTED ROOM AIR-CONDITIONERS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes packaged, window-mounted room air-conditioners.
- B. See Division 07 Section "Composite Window Infill Panels" for factory-finished infill panels to be installed within window openings.
- C. For purposes of coordination of scope by multiple contractors engaged by the Commission, the following abbreviations (included in brackets), are intended to clarify scope responsibilities as it relates to window-mounted room air-conditioner work in this specification.
 - 1. [AC/PI] – Air Conditioning & Panel Installer (Jensen / Auburn)
 - 2. [ACMFR] – Air Conditioning Manufacturer and Supplier (ILCO)
 - 3. [GC/EC] – General Contractor / Electrical Contractor

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. [ACMFR] Include rated capacities, refrigerant, operating characteristics, electrical characteristics, unit weight, furnished specialties and accessories, and UL listing.
 - 2. [ACMFR] Include level of sound generated by unit within the room during operation.
- B. Shop Drawings:
 - 1. [AC/PI] Contractor shall submit deviation details for AC installation that materially differ from details shown on the contract documents for the installation of AC units. Such details may include one or more of the following; plans, elevations, sections, mounting details, dimensions, weights, loads, and required clearances.
 - 2. [GC/EC] Include electrical requirements and diagrams for power supply wiring, including floor level wiring and points of termination of power, to room air-conditioners. Include diagrams for control wiring and NEMA receptacle configuration. Clearly differentiate between portions of wiring that are factory installed and portions that are field installed. Coordinate with AC Manufacturer and Supplier as required.
- C. Samples:
 - 1. [ACMFR] Samples for Initial Selection: Manufacturer's color charts showing the full range of colors available for each product exposed to view.
 - 2. Samples for Verification: For each type of exposed material and finish required, provide samples as indicated below:

- a. [AC/PI] Joint Sealants: Submit sample sets with joint sealants in 1/2-inch- wide joints formed between two 6-inch long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.
- b. [ACMFR] Housing: Submit sample sets not less than 12 inches by 12 inches and of same thickness, material, and color as to be provided to the Project.
- c. [ACMFR] Nameplate: Submit sample sets of nameplates, full-size, with sample of inscribed lettering, on the same thickness and material required for the Project.

1.3 INFORMATIONAL SUBMITTALS

- A. [ACMFR] Sample Warranty: For manufacturer's warranty.

1.4 CLOSEOUT SUBMITTALS

- A. [ACMFR] Operation and Maintenance Data: For room air-conditioners to include in operation and maintenance manuals. Include instructions for adjustment, lubrication, and spare parts listing.

1.5 MAINTENANCE MATERIAL SUBMITTALS

- A. [ACMFR] Extra Materials: Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 1. Remote Controls: Provide one remote control for each 10 AC units but in no case more than ten (10) remote controls, for each type or model, deliver the remotes to the Building Engineer.

1.6 [ACMFR], [AC/PI], [GC/EC] QUALITY ASSURANCE

- A. Standards: Comply with the applicable provisions and recommendations of the following standards below, where standards conflict the more stringent shall apply:
 1. ARI Compliance:
 - a. Comply with ARI 210/240 and ARI 340/360 for testing and rating energy efficiencies for room air-conditioners.
 - b. Comply with ARI 270 for testing and rating sound performance for room air-conditioners.
 2. ASHRAE Compliance: Comply with ASHRAE 15 for refrigeration system safety.
 3. NFPA Compliance: Comply with NFPA 90A and NFPA 90B.
 4. UL Compliance: Comply with UL 1995.
 5. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. Regulatory Requirements: Room air-conditioners shall comply with the EER requirements of the Illinois Energy Conservation Code for Commercial and Residential Buildings, including the International Energy Conservation Code, 2012 edition, and ASHRAE 90.1 – 2010.
- C. Mockups: Build mockups to set quality standards for materials and execution.

1. [AC/PI] Build mockup of typical window-mounted room air-conditioner, including [GC/EC] electrical receptacle installation, in location as shown on Drawings or, if not indicated, in location indicated by the Architect. General Contractor / Electrical Contractor are responsible for electrical systems infrastructure for operation of window-mounted room air-conditioners.
 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- D. [AC/PI] Pre-Installation Conference: Conduct conference at Project site. Prior to the start of the room air-conditioner work, and at the Contractor's direction, meet at the site and review the installation procedures and coordination with other work. Meeting shall include Contractor, Authorized Commission Representative, infill panel and support bracket installer(s), electrician, and any other subcontractors or material technical service representatives whose work, or products, must be coordinated with the room air-conditioner work.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. [ACMFR] Deliver room air-conditioners in original packages bearing name and identification of manufacturer or supplier. [AC/PI] Store units inside, under cover, and keep them dry and protected from weather, corrosion, dust and dirt, jobsite contaminants, construction traffic, and other causes of damage.

1.8 WARRANTY

- A. [ACMFR] Manufacturer's Special Warranty: Written warranty, signed by the Manufacturer agreeing to repair or replace components and/or window unit installations that fail in material or workmanship within the specified warranty period indicated below.
 1. Warranty Period: 18 months from date of delivery to the Site or one year from date of Substantial Completion.
- B. [ACMFR] Manufacturer's Special Warranty on Compressors: Written warranty, signed by the Manufacturer agreeing to repair or replace components that fail in material or workmanship within the specified warranty period indicated below.
 1. Warranty Period: Five (5) years from date of Substantial Completion.
- C. [AC/PI] Installer's warranty: Written warranty, signed by the installer against air and water infiltration around the bracket and housing system.
 1. Warranty Period: Two (2) years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 **[ACMFR] ROOM AIR-CONDITIONERS**

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Comfort-Aire by Heat Controller, Inc.
 2. Perfect Aire, LLC
 3. Friedrich Air Conditioning Co.
 4. General Electric.
- B. Features and Requirements:
1. General: New units shall be complete with cabinet, grilles, louvers, compressor, air-cooled condenser, expansion valve, evaporator air circulation fan, air filter, and all necessary internal piping, wiring and controls.
 2. Capacity: Room air-conditioners shall have the following capacities:
 - a. Small Units: 1 ton capacity ($\geq 12,000$ Btu/hr.).
 - b. Large Units: 2 ton capacity ($\geq 25,000$ Btu/hr.).
 3. Energy Star Listing: Room air-conditioners shall be listed on the DOE's ENERGY STAR "Room Air Conditioners Qualified Products List."
 4. Unit Weight: Room air-conditioners shall not weigh more than 150 pounds.
 5. Condensate Removal: Room air-conditioners shall be evaporative condensate removal type.
 6. Air Control: Room air-conditioners shall have not less than 4-directional control of airflow.
 7. Electrical: Room air-conditioners shall operate on the following electrical supply:
 - a. 208V single phase electrical supply for Small and Large Units with the exception of 1-ton casement units.
 - b. 115V single phase electrical supply for 1-ton casement units.
 8. Line Cord: Room air-conditioners shall be equipped with the following:
 - a. Small Units: NEMA 6-15P plug and 15A rated line cord, six feet in length.
 - b. Large Units: NEMA 6-20P plug and 20A rated line cord, six feet in length.
 - c. Small Casement Units: NEMA 5-15P plug and 15A rated line cord, six feet in length.
 9. Operation: Room air-conditioners shall have digital display and digital electronic controls including, but not limited to, programmable energy saver function with 24-hour on/off timer, dehumidification and auto modes, and auto restart after power outage.
 - a. Handheld remote controls shall have digital electronic controls matching, and capable of adjusting, those controls on the air-conditioning unit.
 10. Mounting: Manufacturer's external bracket components shall not be used for installing the unit. Refer to the custom aluminum mounting bracket details for the requirements of the bracket and securing the housing or sleeve to the bracket.

11. [ACMFR] Coil Fin Protection: Units shall be provided with 1" x 1" vinyl coated wire fin protection grill. Installation by AC and Panel installation Contractor.

C. [ACMFR] Components:

1. Cabinet: External cabinet shall be fabricated from galvanized steel with manufacturer's standard powder coat finish. Cabinet shall have louvered sides.

D. [ACMFR] Accessories:

1. Remote Control: Handheld, battery-operated, wireless remote control that allows control of preset programming, as well as adjustment of temperature and fan speed.
2. Nameplate: Each room air-conditioner shall have a metal nameplate securely attached to the side of the air-conditioner, readily visible from the room without requiring removal of any panels, plates, or covers. Each nameplate shall have the following information inscribed on it in clear and legible lettering:
 - a. Manufacturer's name.
 - b. Model number.
 - c. Date (month and year) of installation.
 - d. Btu/hr rating.
 - e. Voltage.
 - f. Current rating.

2.2 MISCELLANEOUS MATERIALS

- A. [AC/PI] Elastomeric Sealant: Single-component, nonsag, neutral-curing silicone joint sealant complying with ASTM C920; Type S, Grade NS, Class 50, Use NT. Provide one of the following:
1. DOW Corning Corporation; 795.
 2. GE Advanced Materials – Silicones; SilPruf NB SCS9000.
 3. Sika Corporation, Construction Products Division; SikaSil WS-295.
 4. Tremco Incorporated; Spectrem 2.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. [AC/PI] Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. [AC/PI] Verify that supporting bracket, surrounding frame, and infill panel are securely set in place within the window opening.
- C. [AC/PI] Where possible, the AC and Panel Installing Contractor shall examine installation of electrical systems to verify that electrical work, including installation of electrical outlet and wiring, has been completed. Electrical infrastructure need not precede AC and Panel Installation.
- D. [GC/EC] After installation of AC and electrical infrastructure serving window-mounted room air-conditioning units the Electrical Contractor shall be responsible for confirming compatibility of

power infrastructure installed with electrical and line cord features and requirements outlined in this specification under part 2.1(B)(7-8). Contractor shall then be responsible for plugging in new window-mounted room air-conditioners and coiling extra power cord. Contractor shall inform the Authorized Commission Representative of any defective window-mounted room air-conditioner units.

3.2 INSTALLATION

A. General:

1. [AC/PI] Install room air-conditioners in accordance with manufacturer's written instructions and recommendations for installing air-conditioners in locations indicated.
 2. [AC/PI] Provide protection from adverse weather conditions during installation of the units.
- B. [AC/PI] Set room air-conditioners within through-wall cabinet as indicated. Ensure units are firmly set and fully supported within each cabinet and are free from vibration.
- C. [AC/PI] Air-conditioners shall be installed so there is no air leakage (infiltration or exfiltration) or water leakage (infiltration) around the unit.
- D. [AC/PI] Seal perimeter of support brackets, between brackets and air-conditioning units, and other locations, including between support brackets and infill panels, with elastomeric sealant.
- E. [GC/EC] Coil and secure extra slack in power cord with plastic tie wrap and adhesive cord clip fastened to the side or bottom of the housing.

3.3 STARTUP

- A. [GC/EC] Startup and Testing: Upon completion of installation of room air-conditioners, contractor shall test the electrical systems and confirm compatibility with installed units. After confirmation contractor shall start-up and operate units in the presence of the manufacturer's technical representative and Authorized Commission Representative to demonstrate capability and compliance with requirements. The General Contractor / Electrical Contractor shall advise the Authorized Commission Representative, in writing, of any defective AC units. The Authorized Commission Representative shall coordinate correction of malfunctioning units and re-testing to demonstrate compliance, including adjustment of units to eliminate vibration (if any).
- B. [AC/PI] + [ACMFR] Where malfunctioning air-conditioners are identified the AC and Panel Installer shall adjust hardware and moving parts to function smoothly and without binding, and lubricate as recommended by manufacturer. Units that cannot be successfully corrected in the field shall be removed and replaced with another unit at no additional cost to the Commission.

3.4 DEMONSTRATION

- A. [ACMFR] Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain units.

END OF SECTION