

## **SECTION 01030**

### **CONSTRUCTION OPERATIONS AND SITE UTILIZATION PLAN**

#### **PART 1 - GENERAL**

##### **1.1 SUMMARY**

- A. The Construction Operations Plan provides a coordinated construction environment to ensure an orderly, secure and safe operation within the existing school and the entire school property, consequently forming the basis for the Site Utilization Plan prepared by the General Contractor.
- B. The PBC's Authorized Commission Representative in direct coordination with the CPS will administer the plan activities. All Construction Operating issues will be channeled through and require approval of the PBC's Authorized Commission Representative in coordination with the CPS and/or the Building Engineer and Principal.
- C. The Construction Operations Plan has been prepared based on the requirements of the project and in coordination with the existing school operations and program. The elements of this plan required for incorporation into the Site Utilization Plan are included in this section.

##### **1.2 RELATED SECTIONS**

- A. Refer to the General Contractor's Service Agreement for information related to this section. Additional Specification Sections containing information that relate to this section include:
  - 1. Selective Demolition: Section 01732

##### **1.3 GENERAL REQUIREMENTS**

- A. The General Contractor shall review and be familiar with the site conditions through site visits.
- B. General Contractor to provide all temporary and permanent driveway apron and alley permits for the duration of the construction as required. The General Contractor is to pay all fees required for processing permits and is to contact and comply with all authorities and jurisdiction required for permitting.
- C. General Contractor will provide snow removal and clear all debris in construction area and construction access drives and walks.
- D. General Contractor is to provide all required permits for street access for truck delivery from the local and state jurisdiction.
- E. The General Contractor will be required to coordinate all phases of construction and complete the work within the Milestone completion date(s) for the work. The General Contractor shall be also held responsible for meeting all related provisions as described within this section.

- F. Upon issuance of the Notice to Proceed (NTP) the General Contractor shall survey the site and photograph the area of construction operations and surrounding areas. Upon completion of the work the Contractor is to restore the areas to the documented condition prior to the start of work or as otherwise indicated in the Contract Documents.
- G. General Contractor is to replace all removed trees, bushes, ground covers and grass on the Chicago Public Schools' property used as part of the construction operations. Also concrete pavement walks and asphalt surfaces will be replaced or restored to same or improved condition prior to construction.
- H. **General Contractor shall coordinate work with School during yearly Mandatory State Testing periods. Test dates should be verified in preparation of the Contractors Schedule. No work will be permitted in the existing facility or on the construction site during testing except as specifically approved by PBC's Authorized Commission Representative, in conjunction with the CPS, school Principal, and Building Engineer.** If the General Contractor secures approval for specific work to be executed in designated areas during testing periods, the General Contractor must minimize noise in these areas during these time periods, and if requested by the School, stop work causing the noise until testing is completed. General Contractor shall account for in his bid and bear all costs for any loss of time or production related to Mandatory State Testing. The State Testing Dates for the 2010 and 2011 academic years as follows: April 28, 2010 through April 29, 2010, and April 27, 2011 through April 28, 2011.
- I. General Contractor will coordinate and maintain all exit egress during construction as required by the City of Chicago code, other entities with jurisdiction, and as directed by the PBC's Authorized Commission Representative in conjunction with the CPS. The General Contractor shall provide and maintain all materials and labor including barricades, construction fence, doors, partitions, and fire rated walls as required for safe egress, including any shared egress with school during construction.

## **PART 2 - PRODUCTS**

**(NOT USED)**

## **PART 3 - EXECUTION**

### 3.1 SITE UTILIZATION PLAN

- A. After Notice of Award and prior to the issuance of the Notice to Proceed the General Contractor is to prepare and submit to the PBC's Authorized Commission Representative for approval a Site Utilization Plan based on the Construction Operations requirements outlined in this section. Mobilization on-site is not to occur until approval of the Site Utilization Plan is obtained. If requested by the Contractor, a preliminary meeting to review site elements and Construction Operations with the PBC and CPS staff prior to submission of the Site Utilization Plan will be held at the site.

- B. The preliminary Site Utilization Plan shall be submitted within 15 calendar days of issuance of the NTP and shall be provided in a full-size graphic drawing format (36" x 48"). The final Site Utilization Plan must be approved before any direct construction activities take place on the site. Provide a separate plan for the site and for each floor of the existing building where work is being performed. The Contractor is required to prepare and secure approvals of a separate Site Utilization Plan for each phase of the work. Modifications to the format and sheet size will be permitted if pre-approved by the PBC's Authorized Commission Representative and if proposed modifications will facilitate preparation, presentation and review of the Site Utilization Plan. Electronic copies of the Contract Document drawings as appropriate will be provided for this purpose upon request. The Site Utilization Plan shall at a minimum include the following elements:
1. Title block information including School Name, Contract Number, General Contractor, Building floor/level information, construction phasing, and current plan date.
  2. All denotations shall be illustrated in a Legend on each construction phasing plan.
  3. Building footprint of both new and existing buildings, trees, landscaping, paving, drainage structures, existing and ornamental fencing and other important site features.
  4. Areas of staging for construction, students and staff, student drop-off points, existing school entrances and exits, student and staff parking areas, construction parking, and traffic patterns for both construction and non-construction vehicles.
  5. Denotation of the limits of construction and required construction fencing including any existing fencing to remain.
  6. Denotation of required covered construction barricade walkways.
  7. Denotation of areas allowed for staging purposes: construction personnel parking, material storage, and construction trailer(s). Such activities are to only take place in areas designated and approved by the PBC's Authorized Commission Representative in conjunction with the CPS and School Principal.
  8. Denotation of any specific site conditions required to be observed such as keeping alleys clear next to adjacent properties, and any other issues listed on the Construction Operations Site Plan.
  9. Denotation of areas allowed for site access gates, trailers, wheel washers, storage and existing utility poles.
  10. Denotation of all required temporary utilities, including but not limited to AT&T, Peoples Gas, and ComEd.
  11. Denotation of areas of work within the existing building for the period of time covered by the Site Utilization Plan, coordinated with the Project Schedule. Each area should indicate planned beginning and end dates for work in that area. Areas where all work is completed are to be noted.
  12. Construction worker ingress/egress, material staging and mock-up areas in the existing building and construction areas.
  13. Proposed locations of temporary protection, barricades, and temporary walls within the existing building.
  14. Denotation of all temporary exits and path of travel by pedestrians and vehicular traffic.

15. Denotation of construction limits by phase and area with commencement and completion dates for each.
16. Note the time and location of any system tie-ins to existing services, including but not limited to water, sewer, power, controls, security, and HVAC.

### 3.2 SITE UTILIZATION PLAN UPDATES

- A. The General Contractor is required to submit for approval updated Site Utilization Plans whenever conditions in the current approved plan have changed. Approval is required prior to proceeding on any changed conditions not previously approved. Requirements for updating include the following:
  1. In coordination with the project schedule provide detailed information regarding work in the existing building including phasing, vacation of existing in-use areas, and any other information requested by the PBC and CPS.
  2. Revision to the site plan to reflect changing conditions regarding construction fencing, ingress and egress, student and staff staging, construction deliveries, areas of stored materials, parking, and any other construction facility revisions.
  3. The Contractor is required to prepare and secure approvals of a separate Site Utilization Plan for each phase of the work.

### 3.3 CONSTRUCTION OPERATIONS PLAN

- A. Construction Phasing – In order to minimize disruption to school operations, the project shall be completed in multiple Phases, with each Phase containing different components of the project. These Phases include: Phase I – Building “A” Athletic Center Addition, Phase II – Building “B” Existing School Building Interior Renovations, and Phase III – Building “C” Performing Arts Center Addition. Listed below is a summary of these Phases, along with durations for each.
  1. **Phase I – Area “A” Athletic Center Addition Work, Demolition/Removal of Structures, Connection Link to Existing Building “B”, and Associated Landscaping and Site Work:**
    - This Phase includes all Work associated with the general construction of new addition (Building “A”), demolition/removal of existing structures, connection link to existing school (Building “B”), and associated landscaping and site work.
    - All Work for Phase I shall be completed within 460 calendar days of issuance of the NTP.

2. **Phase II – Area “B” Existing School Building Interior Renovation Work, Interior Demolition, Reconfiguration of the Retention Pond, New Rain Garden (located east of the existing north parking lot), New Rain Garden (located south of the new east parking lot), Generator Installation, Upgrades to Existing MEP and FP Systems, New East Parking Lot, New Drives, Landscaping, and Site Work:**
  - This Phase includes all Work associated with the interior renovation work for the existing school (Building “B”), interior demolition, reconfiguration of the retention pond (located south of Building “B”), construction of new rain gardens, furnishing and installation of the new emergency generator, upgrades to existing MEP and FP systems, new east parking lot, new drives, landscaping, and site work.
  - All Work associated with the interior renovations of the existing school building (Building “B”) shall commence and be completed during the summer recess periods only. No work will be permitted during the 2010 and 2011 school sessions. Contractor must obtain written approval from the Commission for performing any work during any other holiday breaks. All Work associated with the interior renovations, including upgrades to the existing MEP and FP system, with the exception of the Library and Performing Arts areas shall commence on June 19, 2010, and be completed by no later than July 15, 2011. All Work associated with the Library and Performing Arts areas shall commence on June 18, 2011, and be completed by no later than August 19, 2011. (Note: The existing library and performing arts areas are scheduled to be vacated starting June 18, 2011.).
  - All Work associated with the reconfiguration of the retention pond, and construction of the new rain garden (located east of the existing north parking lot) shall be completed within 152 calendar days of issuance of the NTP.
  - All Work associated with the construction of the new east parking lot, rain garden (located south of the new east parking lot), new drives, landscaping, and site work shall be completed within 460 calendar days of issuance of the NTP.
  - All Work associated with the furnishing and installation of the new generator shall commence on June 19, 2010, and be completed by no later than July 30, 2010.
3. **Phase III – Area “C” Performing Arts Addition Work, Connection Link to Existing Building “B, New Drives, and Associated Landscaping and Site Work:**
  - This Phase includes all Work associated with the general construction of the new addition (Building “C”), connection link to existing school (Building “B”), new drives, and associated landscaping and site work.
  - All Work for Phase III shall be completed within 460 calendar days of issuance of the NTP.
4. The General Contractor is to maintain all staging, deliveries and general administrative operations to the east side of the Performing Arts Addition.
  - a. The Contractor is required to prepare and secure approvals of a separate Site Utilization Plan for each phase of the work.
  - b. All provisions of the Contract Documents and Specifications will remain in effect throughout each phase of the project.

**B. Site Restrictions**

1. No construction deliveries during school days will be permitted to either the existing facility or the new additions between the hours of 7:00 to 8:00 AM and 2:00 to 4:00 PM.
2. Upon issuance of the Notice to Proceed (NTP), the Contractor is to set up and stage the entire project within the boundaries of the existing construction fence. The General Contractor is responsible for maintaining and modifying the fence as necessary and as approved in his Site Utilization Plan for the life of the project. Removal and disposal of the fence and restoration of area damaged by fencing at the conclusion of the project is also the responsibility of the General Contractor.
3. Organization of the work and facilities within the construction fence and as otherwise noted above will be the sole responsibility of the General Contractor. However, temporary facilities that produce noise and/or dust are to be located as far as possible from the existing building. The PBC in conjunction with the CPS can require relocation of any facility that disrupts normal school operation. General Contractor shall provide dust control and continuous street cleaning at streets surrounding project site to remediate dirt and construction debris from construction activities.
4. Delivery and construction access to the site is to be from King Drive at 110<sup>th</sup> Street only. Subject to City requirements, worker parking will be allowed on the street only. There will be no parking on-site outside of the Contractor's fenced work area on school days. Parking priority is for school staff and students at all times. Modifications to parking restrictions stated herein will be made if required to maintain this priority.

**C. Access to work in the Existing Building (Building B)**

1. The General Contractor will be allowed access to the work in the existing building only as previously approved through the project schedule and Site Utilization Plan.
2. Exterior work on the existing building can be conducted during school hours and as approved in the Site Utilization Plan, however, dust, noise, and odor infiltration into the existing building will not be permitted under any circumstances. Notwithstanding approval of the Site Utilization Plan, the Contractor will be required to immediately cease or relocate operations whenever these activities conflict with the school learning environment.
3. There will be no summer school session at the Gwendolyn Brooks College Preparatory Academy in 2010 and 2011, allowing less restrictive access to the existing building. Faculty and staff may occupy portions of the existing building during each summer, and the contractor shall coordinate work to accommodate school representatives during these summer periods. Site Utilization Plan requirements however, will remain in effect as modified and approved for the unoccupied period. All requirements of the Contract Documents will remain in effect with the exception of those requirements that serve the exclusive purpose of coordination with student activities at the school.

4. The PBC in conjunction with the CPS, School Building Engineer and/or other approved CPS staff are required to be present at all times work is in progress in the existing Building. If advance arrangements are not made with CPS, the General Contractor will be responsible for all overtime costs for the CPS staff member for work outside of normal working hours. Overtime arrangements for CPS staff includes weekends, holidays, and generally hours beyond that listed in Site Restrictions above. IUOE Locals #143 and #399 Holidays are as follows (Saturday holidays are observed on Friday, Sunday holidays are observed on Monday):
  - a. New Year's Day
  - b. Martin Luther King Jr.'s Birthday
  - c. Lincoln's Birthday
  - d. Presidents Day
  - e. Pulaski Day
  - f. Memorial Day
  - g. Independence Day
  - h. Labor Day
  - i. Columbus Day
  - j. Veterans Day
  - k. Thanksgiving
  - l. Friday after Thanksgiving
  - m. Christmas Day

**END OF SECTION**

## SECTION 02001

### SUMMARY OF EXISTING SITE CONDITIONS

#### PART 1 - GENERAL

##### 1.1 APPLICABILITY

- A. This environmental summary is for information purposes only.

##### 1.2 SUMMARY

- A. Related Documents. All terms and conditions of the Contract apply to this section.

##### 1.3 RELATED WORK

- A. Section 02316 - Soil, Fill, Backfill, CU Structural Soil and Construction Demolition Debris Removal.
- B. Section 02317 - Special, Non-hazardous-Special, and Hazardous Waste Soil Removal and Disposal.
- C. Section 02318 - Acceptance of Backfill, Top Soil & CU Structural Soil
- D. Section 02089 – Hazardous and Universal Waste Management

##### 1.4 AVAILABLE ENVIRONMENTAL ASSESSMENT DOCUMENTS

- A. Final Phase I Environmental Site Assessment – Proposed East Addition, prepared by Carnow Conibear & Assoc. Ltd. (Carnow Conibear), dated March 2009.
- B. Final Phase I Environmental Site Assessment – Proposed West Addition, prepared by Carnow Conibear, dated March 2009.
- C. Electromagnetic Survey, prepared by Carnow Conibear, dated March 10, 2009.
- D. Geophysical and Test Pit Investigation, prepared by Carnow Conibear, dated April 17, 2009.
- E. Final Hazardous Materials Survey, prepared by Carnow Conibear, dated August 12, 2009.
- F. Final Limited Phase II Environmental Site Assessment – Proposed East Addition, prepared by Carnow Conibear, dated July 1, 2009.
- G. Final Limited Phase II Environmental Site Assessment – Proposed West Addition, prepared by Carnow Conibear, dated July 7, 2009.
- H. Additional Hazardous Material Survey, prepared by Carnow Conibear, dated January 26, 2010.
- I. Limited Asbestos and Lead Survey, prepared by Carnow Conibear, dated January 26, 2010.



## 1.5 SITE DESCRIPTION

- A. The subject site is located within the campus of Gwendolyn Brooks Preparatory Academy, at 250 East 111th Street in Chicago, Illinois. The subject site is located north of East 111th Street, between South Martin Luther King Drive and South Indiana Avenue, in Chicago, Illinois. The subject site is divided into two areas: Proposed East Addition and Proposed West Addition. The Proposed West Addition consists of an existing gymnasium, parking lot, concrete walkways and landscaped areas. The Proposed East Addition consists of an existing chapel, rectory with attached garage, concrete walkways and landscaped areas.

## 1.6 SITE HISTORY

- A. Historical records indicate that both the Proposed West Addition and the Proposed East Addition were part of a school campus that was constructed circa 1915.
- B. Between 1915 and 1953, the Proposed West Addition was mostly vacant, with the exception of a small tool house. In 1953, a combined gymnasium and cafeteria building was constructed on the southern portion of the Proposed West Addition. A paved parking lot was developed on the northern portion of the Proposed West Addition during the 1970s or 1980s.
- C. Between 1915 and 1953, the Proposed East Addition was mostly vacant, with the exception of a portion of a school building used as an oil house and welding and auto department. The oil house and auto/welding department building was demolished, and the footprint of this former structure is now partially under the foundation of the existing east wing of the school building. In 1953, a chapel and rectory with a garage was constructed on the subject site. The east portion of the subject site has remained vacant land within the school campus.

## 1.7 ENVIRONMENTAL CONDITIONS

- A. The 2009 Phase I ESA conducted for the subject site identified the following recognized environmental conditions (RECs):
  - 1. The historical presence of a school machine shop adjacent to the Proposed West Addition, and the associated use of chemicals with these activities.
  - 2. The historical presence of a school oil house and welding and auto department partially on and adjacent to the Proposed East Addition, and the associated use of petroleum and other chemicals with these activities.
  - 3. The potential presence of an unregistered underground storage tank (UST) on or adjacent to the subject site.
- B. A geophysical survey and test pit excavation were conducted at the site in 2009 to search for evidence of any underground storage tanks (USTs). The geophysical survey found seven anomalies on the subject site. Five anomalies were investigated by excavating test pits, but no USTs were found. The remaining two anomalies were determined to be buried utilities.
- C. Limited Phase II ESAs were conducted at the subject site in 2009. Four soil borings were advanced at the subject site to identify, characterize, and delineate soil conditions in the vicinity of the previously identified RECs. Two borings were located within the footprint of the Proposed West Addition, east of the existing gymnasium, in the vicinity of the former machine shop. Two borings were located within the footprint of the Proposed East Addition, west of the existing garage, in the vicinity of the former oil house and welding and auto department.

- D. Soil samples were analyzed for the presence of volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PNAs), total Resource Conservation and Recovery Act (RCRA) metals, and pH. The limited soil investigation did not identify constituents in soil which would be considered as "the presence or likely presence of a release or a substantial threat of a release of a regulated substance at, on, to or from the real property," per 415 ILCS 5/58.16.
- E. A hazardous material survey was conducted in 2009 for the existing gymnasium, main school building library, chapel, rectory, and garage of the subject site. With the exception of the library, all hazardous materials were removed from these locations as part of the Site Preparation activities. An additional hazardous material survey was conducted in 2010 for the additional renovation areas of the main school building. The hazardous materials survey consisted of visually inspecting the subject site to determine the presence and location of polychlorinated-biphenyl (PCB) containing equipment (lighting ballasts, switchgears, transformers, and hydraulic fluids), mercury containing equipment (mercury lamps, thermostats, switches, thermometers, regulators, and gauges), and other hazardous chemical wastes, such as chlorofluorocarbons (CFCs) or equipment.
1. Hazardous materials identified during the surveys included:
    - a. Potential PCB-containing equipment/oil
    - b. Potential mercury-containing equipment
    - c. Chemical wastes
    - d. Refrigerants/CFCs

Additional fluorescent ballasts, fluorescent bulbs, emergency lights, and exit and stair signs were identified throughout the renovation areas. Should demolition/renovation activities require the removal of these materials, the materials should be handled in accordance with specification 02089 – Hazardous and Universal Waste Management.

- F. Lead Based Paint surveys were conducted within the demolition/renovation areas of the existing buildings in 2009 and 2010. Contractor shall be responsible to review Site Preparation Contract Documents and additional survey documentation listed in Section 1.4 in regard to lead-based paint. No lead-based paint was identified within the designated demolition/renovation areas of the existing building during the inspection. However, lead-based paint may be present within inaccessible areas of the building and it is the responsibility of the Contractor to take appropriate safety measures in accordance with applicable federal, state, and local rules and regulations including OSHA (Section 1926.62) compliance, waste characterization, and proper disposal of wastes.

If during the course of demolition/renovation, lead-based paint or suspect lead based paint requires disturbance to the extent as to require removal from its substrate, demolition/renovation will cease in that area until mitigation can be performed. Lead-based paint mitigation shall be conducted following specification 02133 - Lead-Based Paint Mitigation and specification 02136 - General Dust, Fume, and Odor Control.

- G. Asbestos surveys were conducted within the demolition/renovation areas of the existing buildings in 2009 and 2010. Contractor shall be responsible to review Site Preparation Contract Documents and additional survey documentation in Section 1.4 in regard to asbestos containing materials. Asbestos containing materials were not identified within the designated interior areas of renovation. All roofing materials are assumed asbestos containing. Contractor shall perform abatement in accordance with using 02132 - Asbestos Abatement for Exteriors, if roofing materials are disturbed or require removal as part of their Work.

Contractor shall also coordinate with the MEC and conduct exploratory demolition within the pipe chases of the faculty washrooms, beneath the elevated flooring of rooms 403, 405 and 407 and any additional areas that will result in the penetration of previously inaccessible areas.

If suspect asbestos containing materials are identified, additional inspection and sampling shall be conducted by the MEC. Should during the course of demolition/renovation, an asbestos-containing material or suspect asbestos containing material require disturbance or removal, demolition/renovation will cease in that area until abatement is complete. Asbestos abatement shall be conducted following specification 02131 - Asbestos Abatement for Interiors and/or specification 02132 - Asbestos Abatement for Exteriors.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION (Not Used)**

**PART 4 - QUALITY CONTROL (Not Used)**

**PART 5 - MEASUREMENT AND PAYMENT (Not Used)**

- A. For information only. No separate payment.

**END OF SECTION**

**SECTION 02089****HAZARDOUS AND UNIVERSAL WASTE MANAGEMENT****PART 1 - GENERAL****1.1 SUMMARY**

- A. Related Documents: All terms and conditions of the Contract apply to this Section.
- B. Description of Work:
1. This Section describes the segregation, packaging, labeling, transport, and disposal of waste materials generated by demolition activities and the subsequent shipment of properly packaged and labeled waste materials to open, permitted and Owner-approved disposal sites.
  2. The Contractor's work includes work area preparation, sampling and analysis, on site handling, supervision of all work, preparation of reports, protection of on-site persons, utilities, and property, and payment of all transport and disposal/recycling fees.
- B. A hazardous material survey was conducted in 2009 and 2010 for the site buildings. These quantities are provided for informational use, only. It is the Contractor's responsibility to verify all material types and quantities. Hazardous, universal, special and other waste materials identified during the survey included:

**Table I – Library**

Category	Item	Quantity	Units	Location
PCBs	Fluorescent Ballasts	50	each	Throughout
Mercury	Fluorescent Bulbs	178	each	Throughout
Chemicals	Fire Extinguishers	1	each	South wall
Refrigerants/CFCs	Refrigerator	1	each	East office

**Table II –Main Building**

Category	Item	Quantity	Units	Location
PCBs	Fluorescent Ballasts	8	each	1st Floor – Room 110
Mercury	Fluorescent Bulbs	24	each	1st Floor – Room 110
Chemicals	Fire Extinguishers	4	each	1 <sup>st</sup> and 2 <sup>nd</sup> Floors
	Pumps (Motor Oil)	3	each	4 <sup>th</sup> Floor, East Wing Mechanical Room
	Chiller System and Related Fluids	2	each	4 <sup>th</sup> Floor, East and West Wings
	Inhibited Ethylene Glycol	40	gallons	4 <sup>th</sup> Floor, East Wing Mechanical Room

Additional fluorescent ballasts, fluorescent bulbs, emergency lights, and exit and stairs signs were identified throughout the renovation areas. Should renovation activities require the removal of these materials, all materials should be handled in accordance with this specification.

## 1.2 REFERENCES

- A. General Applicability of Codes and Regulations:
1. Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, all applicable codes and regulations have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies are bound herewith.
- B. Contractor Responsibility:
1. The Contractor shall assume full responsibility and liability for the compliance with all applicable federal, state, and local regulations pertaining to hazardous, special and universal waste management and disposal/recycling.
  2. Notice will be provided to the Public Building Commission of Chicago (PBCC) within 4 hours of any environmental problems, complaints, fines, citations or issues by any government body or regulatory agency pertaining to hazardous, special or universal waste management and disposal. Written confirmation will be provided to the Owner within 48 hours of the incident that indicates all problems and issues have been satisfactorily addressed.
  3. Notice shall be provided to the PBCC a minimum of 2 working days prior to the removal of any hazardous, special or universal waste and/or recycled hazardous, special or universal waste from the site.
- C. Federal Requirements:
1. Federal requirements which govern the management, hauling and disposal of hazardous, special and universal waste/recycled material include but are not limited to the following:
    - a. DOT: U. S. Department of Transportation, including but not limited to the following:
      - i. Hazardous Substances Title 49, Part 171 and 172 of the Code of Federal Regulations
      - ii. Hazardous Material Regulations General Awareness and Training Requirements for Handlers, Loaders and Drivers Title 49, Parts 171-180 of the Code of Federal Regulations
      - iii. Hazardous Material Regulations Editorial and Technical Revisions Title 49, Parts 171-180 of the Code of Federal Regulations
    - b. EPA: U. S. Environmental Protection Agency (EPA), including but not limited to the following:
      - i. Management of Hazardous Wastes Resource Conservation and Recovery Act (RCRA), Title 40, Parts 260-299 of the Code of Federal Regulations.
      - ii. Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution In Commerce, and Use Prohibitions, Title 40, Parts 761, of the Code of Federal Regulations.
      - iii. Protection of Stratospheric Ozone, Title 40, Part 82 of the Code of Federal Regulations.
      - iv. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Title 42, Section 103.
      - v. Universal Waste Rule, Title 40, Part 273 of the Code of Federal Regulations.
    - c. LABOR: Occupational Safety and Health Administration, including but not limited to:
      - i. Occupational Safety and Health Guidelines, Respiratory Protection, Title 29, Part 1910.134.
      - ii. Occupational Safety and Health Guidelines, Occupational Safety and Health Standards, Lead, Title 29, Part 1910.1025.
      - iii. Occupational Safety and Health Standards, Hazard Communication, Title 29, Part 1910.1200.

- iv. Safety and Health Guidelines for Construction, Title 29, Part 1926 of the Code of Federal Regulations.
- D. State Requirements: Abide by all state requirements which govern the management, hauling and disposal of hazardous, special and universal waste/recycled material. In Illinois, this is including but not limited to the following:
- 1. Title 35 of the Illinois Administration Code (IAC), including but not limited to the following:
    - a. Wastestream Authorization, IAC Chapter I, Subpart b, Part 709.
    - b. Hazardous Waste Management Systems: General, IAC Chapter I, Subchapter c, Part 720.
    - c. Identification & Listing of Hazardous Waste, IAC Chapter I, Subchapter c, Part 721.
    - d. Standards Applicable to Generators of Hazardous Waste, IAC Chapter I, Subchapter c, Part 722.
    - e. Standards Applicable to Transporters of Hazardous Waste, IAC Chapter I, Subchapter c, Part 723.
    - f. Standards Applicable to PBCCs, Treaters, Storers, and Disposers of Hazardous Waste, IAC Chapter I, Subchapter c, Part 724.
    - g. Interim Status Standards of Hazardous Waste Treaters, Storers, and Disposers, IAC Chapter I, Subchapter c, Part 725.
    - h. Standards for the Management of Specific Hazardous Waste and Specific Types of Hazardous Waste Management Facilities, IAC Chapter I, Subpart c, Part 726.
    - i. Land Disposal Restrictions, IAC Chapter I, Subchapter c, Part 728.
    - j. Universal Waste Management, IAC Chapter I, Subchapter d, Part 733.
    - k. Solid Waste, IAC Chapter I, Subchapter i, Part 807.
    - l. Special Waste Classifications, IAC Chapter I, Subchapter i, Part 808.
    - m. Special Waste Hauling, IAC Chapter I, Subchapter i, Part 809.
    - n. Standards for New Solid Waste Landfills, IAC Chapter I, Subchapter i, Part 811.
    - o. Procedural Requirements for Permitted Landfills, IAC Chapter I, Subchapter i, Part 813.
    - p. Standards for Existing Landfills and Units, IAC Chapter I, Subchapter g, Part 814.
- E. Local Requirements: Abide by all local requirements as outlined within the Municipal Code of the City of Chicago which governs the management, hauling and disposal of hazardous, special and universal waste/recycled material.

### 1.3 DEFINITIONS

- A. Capacitor: A device for accumulating and holding a charge of electricity and consisting of conducting surfaces separated by dielectric fluid.
- B. Chemical Waste Landfill: An open and approved landfill, permitted under 35 IAC Subtitle G Part 814, at which protection against risk of injury to health or the environment from migration of PCBs to land, water or the atmosphere is provided from PCBs and PCB items deposited therein by locating, engineering, and operating the landfill as specified in 40 CFR 1761.75.
- C. Disposal: Intentionally or accidentally to discard, throw away or otherwise complete or terminate the useful life of PCBs and PCB items. Disposal includes spills, leaks, and other uncontrolled discharges of PCBs as well as actions related to containing, transporting, destroying, degrading, decontaminating, or confining PCBs and PCB items.
- D. CFR: Code of Federal Regulations, the basic component of the Federal Register publication system.

The CFR is a codification of the regulations of the various Federal Agencies.

- E. Container: Any portable device in which material is sorted, transported, treated, disposed of, or otherwise handled.
- F. Fluorescent light ballast: A device that electrically controls fluorescent light fixtures and that includes a capacitor containing 0.1 kg or less of dielectric oil.
- G. Component: All removable parts/materials which make up ballasts, bulbs, batteries, and other electrical equipment, a percentage of which can be recycled.
- H. Disposal Facility: An open and approved facility or part of a facility at which hazardous waste is intentionally placed into or on any land or water, and at which waste will remain after closure.
- I. EPA Identification: The unique number assigned by the EPA to each generator or transporter of hazardous waste, and each treatment, storage or disposal facility.
- J. Leak or Leaking: Any instance in which PCB Article, PCB Container, or PCB Equipment has any PCBs on any portion of its external surface.
- K. Facility: All contiguous land, structures, other appurtenances, and improvements on the land, used for treating, storing, recycling or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units, e.g. one or more landfills, surface impoundments, or a combination of them.
- L. On-site: Within the boundaries of a contiguous property unit.
- M. Landfill: An open and permitted disposal facility or part of a facility where hazardous and special wastes are placed in or on land and which is not a land treatment facility, a surface impoundment, or a combination of them.
- N. Manifest: The shipping document, EPA form 7710-53, used for identifying the quantity, composition, origin, routing, and destination of hazardous waste during its transportation from the point of generation to the point of treatment, storage or disposal.
- O. Polychlorinated Biphenyls (PCBs): Any chemical substance that is limited to the biphenyl molecule that has been chlorinated to varying degrees or any combination of substances which contains such substance.
- P. PCB Article Container: Any package, can, bottle, bag, barrel, drum, tank, or other device that contains PCB Articles or PCB Equipment, and whose surface(s) has not been in direct contact with PCBs.
- Q. PCB Container: Any package, can bottle, bag, barrel, drum, tank, or other device that contains PCBs or PCB Articles and whose surface(s) has been in direct contact with PCBs.
- R. PCB Item: Any PCB Article, PCB Article Container, PCB Container, or PCB Equipment, that deliberately or unintentionally contains or has as a part of it any PCB or PCBs.
- S. Recover Refrigerant: To remove refrigerant in any condition from an appliance without necessarily testing or processing it in any way.

- T. Recycle Refrigerant: To extract refrigerant from an appliance and clean refrigerant for reuse without meeting all of the requirements for reclamation. In general, recycled refrigerant is refrigerant that is cleaned using oil separation and single or multiple passes through devices such as replaceable-core filter-driers, which reduce moisture, acidity, and particulate matter.
- U. Reclaim Refrigerant: To reprocess refrigerant to at least the purity specified in Air-Conditioning and Refrigeration Institute (ARI) Standard 700-1988, "Specification for Fluorocarbon refrigerants", and to verify this purity using the analytical methodology prescribed in the standard. In general reclamation involves the use of processes or procedures available only at the processing or manufacturing facility.
- V. Storage: The holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed of or stored elsewhere.
- W. Toxic Characteristic Leaching Procedure (TCLP): A laboratory test method to determine the mobility of both organic and inorganic compounds present in liquid, solid, and multiphase wastes performed in accordance with test methods required under 40 CFR Part 261 and 268.
- X. Transporter: Any person engaged in the off-site transportation of special waste and/or hazardous waste within the United States, by air, rail, highway or water, if such transportation requires a manifest under 40 CFR Part 262.

#### 1.4 QUALITY ASSURANCE

- A. Work outlined in this Section must be performed by a qualified Contractor with a minimum of 10 years experience, who is thoroughly familiar with working with regulated waste materials of similar size and scope, the Contractor must be familiar with and capable of complying with all federal, state, and local regulatory requirements pertaining to waste handling.
- B. Medical Examinations: The Contractor shall provide workers with a comprehensive medical examination as required by 29 CFR 1910.134 and 29 CFR 1926.62. The examination will not be required if adequate records show that employees have been examined as required within the last year. The Contractor shall institute a medical surveillance program for all employees who are or may be exposed above the action level for more than 30 days per year.

#### 1.5 SUBMITTALS

- A. Before the start of any hazardous waste removal work, the Contractor must submit a Hazardous Waste Management Plan to the Owner fifteen (15) days prior to the start of Work.
- B. During work, the Contractor must submit the following to the PBCC within ten (10) days of activity, off-site removal, or completion of work if duration is less:
  - 1. TCLP test results, as required to characterize waste paint chip debris for segregation and packaging purposes prior to transport from the site.
  - 2. Submit copies of all executed manifests and disposal site receipts and waste quantities.
  - 3. Receipts for all recycled materials accepted at authorized recycling facilities. The receipts will include the number of components recycled as well as the amount of materials recycled and/or disposed.
  - 4. Documents for the removal, handling, recycling or disposal of CFC Refrigerant/Reclamation.
  - 5. Daily Reports – list names of active workers for each day, work starting and stopping times,



visitors to the site, and description of work accomplished.

C. Submittal Review

1. Review of submittals or any comments made do not relieve the Contractor from compliance with the requirements of the contract specifications and drawings. The purpose of this check is to review for general conformance with the design concept of the project and general compliance with the information given in the contract documents.
2. The Contractor must not begin any work applicable to this section until all required submittals have been reviewed and accepted by the PBCC.

1.6 HAZARDOUS WASTE PLAN REQUIREMENTS

A. The Contractor must prepare a Hazardous Waste Plan designating appropriate procedures and equipment for performing the work. The Hazardous Waste Plan must address the proper management/handling and disposal/recycling of wastes generated during work activities. The Contractor's Hazardous Waste Plan for this project must include as a minimum the items listed below:

1. List of Hazardous Waste Equipment
  - a. A description of the proposed equipment to be used during the removal and handling, temporary storage, and transport of hazardous materials related to the work.
2. Hazardous Material Handling
  - a. A description of the method of transportation, storage, and/or disposal of hazardous materials.
3. Disposal/Recycling Facilities
  - a. Copy of state and local special waste and/or hazardous waste hauler licenses for the transporter.
  - b. U.S. EPA Identification Number of waste hauler.
  - c. Current list of all transporting vehicles to be used including:
    - i. Vehicles make, model and year.
    - ii. Serial number for each vehicle.
    - iii. Vehicle license number.
    - iv. Number of axels.
    - v. Weight capacity of vehicle.
  - d. A list of all licensed qualified truck drivers. Drivers should be able to provide their drivers license upon request.
  - e. Instances where rail haulers are being used, copies of all applicable permits and licenses for the load on/off site location(s) and/or transfer location(s) will be provided.
  - f. Name and address of waste disposal/recycling facility where hazardous, special or universal waste materials are to be disposed/processed including:
    - i. Contact person and telephone number.
    - ii. Copy of state license and permit.
    - iii. Facility permits.
  - g. An authorized representative of the recycling facility will provide a signed statement stating the percentage of recycled materials for each of the components including the estimated percentage pertaining to each component which has no recycling value.
  - h. Specimen copy of Uniform Hazardous Waste Manifest form.
  - i. Copy of EPA "Notice of Hazardous Waste Activity" form.
  - j. Copy of forms and permits required by federal, state and local agencies.
  - k. Sample of disposal label(s) to be used.

- l. Certification of workers and supervisors who have had the 40-hour Hazardous Waste Site training.
- m. The Contractor shall supply only those personnel qualified to properly handle, store and dispose hazardous waste.
4. Safety Precautions
  - a. Personnel safety
    - i. List safety equipment and clothing to be used per OSHA regulations.
    - ii. A description of emergency procedures to be followed in case of physical contact, ingestion, inhalation, etc.
5. Emergency Spills
  - a. A description of methods to be used for containment.
  - b. A description of methods to be used for collection and disposal.
  - c. A description of methods and materials to be used to restore areas harmed by emergency spills.
  - d. A description of methods to be used for notification and evacuation procedures.
6. Lead-containing Paint Management
  - a. A description of the work procedures that will be utilized to minimize the generation of airborne lead into the environment.

## **PART 2 - PRODUCTS**

### **2.1 EQUIPMENT/MATERIALS**

- A. Disposal Bags: Provide 6 mil (0.15 mm) thick leak-tight polyethylene bags.
- B. DOT Hazardous Waste Disposal Drums: Provide Open -Top Drums (DOT UN 1A2/X 320/S;UN1A2/Y 1.2/100) in accordance with DOT title 49 CFR Parts 173, 177, 178, and 179.
- C. Fiberboard Drums, cylindrical containers manufactured from sturdy fiberboard will be utilized for storage transportation of electrical equipment.
- D. PCB containing ballasts shall be placed in Open -Top drums with vermiculite packing. The drums will be sealed, and labeled as containing hazardous PCB waste. The label shall also include the name and address of the parcel. However, if ballasts are damaged they shall be stored prior to disposal in accordance with 40 CFR 761.65.
- E. DOT Hazardous Waste Labels: in accordance with DOT regulations Title 49 CFR parts 173, 177, 178, and 179.
- F. Corrugated "Gaylord" Boxes with the use of a liner will be used to store and transport bulk materials which will be kept on pallets during storage and transportation.
- G. Materials to be used to restore areas harmed by emergency spills.
- H. Safety equipment and Personal Protective Equipment (PPE) to be used.
- I. Hazardous material manifests and other related forms required by state and local agencies.
- J. Utilize equipment to recover refrigerant that is appropriate for the following:
  1. Type of system encountered

2. Refrigerant type
3. Achieving IEPA-mandated vacuum levels

### **PART 3 - EXECUTION**

#### **3.1 GENERAL REQUIREMENTS**

- A. The Contractor shall train each employee performing work prior to the time of initial job assignment in accordance with applicable regulations.
- B. Respiratory Protection Program:
  1. The Contractor shall furnish each employee required to wear a negative pressure respirator or other appropriate type with a respirator fit test at the time of initial fitting and at least every 6 months thereafter if required by 29 CFR 1910.1025.
  2. The Contractor shall establish and implement a respiratory protection program as required by 29 CFR 1910.134 and 29 CFR 1926.62.
- C. Hazard Communication Program: Establish and implement a Hazard Communication Program as required by 29 CFR 1910.1200.
- D. Post warning signs at entry points to hazardous work area, as necessary.
- E. Segregate, package, label, transport and dispose of all wastes in accordance with DOT, EPA, state, and local regulations.
- F. Scheduling/Sequencing of the demolition and/or abatement is to be coordinated by the Contractor.
- G. Extreme care shall be used to prevent leakage of refrigerant during removal processes.
- H. Do not mix potentially hazardous waste streams or different refrigerants in the same recovery vessel. Where feasible, separate each type of hazardous waste from other types of hazardous wastes and construction waste.
- I. All electrical circuits shall be de-energized and locked out prior to removal of ballasts. Contractor shall provide temporary lighting as needed.
- J. The Contractor shall identify the location and Commissionship of all on-site transformers. The contents from each transformer shall be characterized for PCB content by the Contractor for proper disposal.

#### **3.2 HAZARDOUS WASTE DESIGNATION**

- A. Where not otherwise designated by PBCC as hazardous waste, characterize applicable suspect waste products by conducting representative TCLP testing and referencing 40 CFR Part 261. TCLP test analysis will be performed in accordance with EPA Method 1311.
- B. Work shall include characterization and proper disposal of any soot contained within boilers,

incinerators, or stacks; maintenance fluids within heating/cooling equipment; hazardous chemicals; aboveground storage tanks; or lead content of paint present.

- C. Fluids from transformers, electrical equipment, hydraulic equipment, etc. shall be characterized for PCB content per 40 CFR Part 761.
- D. Contractor shall provide representative sampling of waste products in accordance with EPA Document SW-846.

### 3.3 WASTE/RECYCLED MATERIALS

- A. The following waste products are designated by PBCC as non-salvageable Waste Types:
  - 1. Waste Type A: PCB waste.
    - a. PCB-containing ballasts from fluorescent light fixtures.
    - b. PCB-containing electrical transformers
  - 2. Waste Type B: Mercury-containing waste.
    - a. Thermostats with mercury switches. Individually bagged mercury-containing thermostats.
    - b. Fluorescent and mercury-vapor lamps.
  - 3. Waste Type C: Lead-containing waste.
    - a. Lead paint (liquid or containerized paint wastes).
    - b. Lead-contaminated wastes (paint chips, loose debris, etc.).
  - 4. Waste Type D: Other
    - a. Soot encountered in stacks, incinerators, or associated equipment.
    - b. Containers with maintenance oils and fluids, pesticides.

### 3.4 WASTE/RECYCLED MATERIALS PACKAGING AND LABELING

- A. Package each segregated Waste Type, A and B, C and D in specified containers as follows:  
**IMPORTANT: Do Not Mix Waste Streams.**
  - 1. Waste Type A
    - a. Package in Open-Top Drums (DOT UN 1A2/X 320/S;UN1A2/Y 1.2/100) in accordance with 49 CFR Parts 171-180.
    - b. Fill to capacity only with Waste Type A (Do Not Mix Waste Stream types).
    - c. Install gasket on lid, apply lock ring, and seal.
    - d. Apply Hazardous Waste Label to drum side.
    - e. Enter required DOT shipping data per applicable regulations.
    - f. Adjacent to each label, enter the date indicating when waste was first placed in each drum.
  - 2. Waste Type B
    - a. Package in Open-Top Drums (DOT UN 1A2/X 320/S;UN1A2/Y 1.2/100) with polyethylene disposal bag liners.
    - b. Fill liner bags only with Waste Type B (Do Not Mix Waste Stream types); then neck liner bags down into an Open-Top Drum and seal with duct tape.
    - c. Install and seal gasket on lid, apply lock ring and Hazardous Waste Label to drum side.
    - d. Enter required DOT shipping data per applicable regulations.
    - e. Adjacent to each label, enter the date indicating when waste was first placed in each drum.
  - 3. Waste Type C

- a. Handle, store, transport, and dispose lead or lead-contaminated waste in accordance with 40 CFR 260, 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, and 40 CFR 265.
  - b. Comply with land disposal restriction notification requirements as required by 40 CFR 268.
  - c. Non-hazardous waste may be disposed of as demolition debris (general refuse).
  - d. Submit results of TCLP testing to PBCC prior to disposal.
4. Waste Type D
- a. Package other wastes as applicable in accordance with Hazardous Wastes Resource Conservation and Recovery Act (RCRA), Title 40, Parts 260-299 of the Code of Federal Regulations.
- B. Sealed and Labeled Containers: maintain all containers in a continuously sealed condition after they have been sealed.
1. Do not reopen sealed containers
  2. Do not place additional waste in sealed containers.

### 3.5 TEMPORARY STORAGE

- A. Partially filled containers of hazardous, non-hazardous, special and universal wastes may be stored at the work site for intermittent packaging provided that the following conditions are met:
1. Each container is properly labeled when it is first placed in service;
  2. Each container remains closed at all times except when compatible waste types are added;
  3. Each container storage area is secured and/or attended at all times;
  4. When moved from site to site, each container remains within the geographic boundaries of the facility without moving nor crossing public access highways; and
  5. Under no circumstances will the accumulated waste remain onsite beyond ninety (90) days from the day that accumulation was initiated.

### 3.6 REMOVAL OF WASTES/RECYCLED MATERIALS

- A. Immediately seal containers of waste/recycled materials as each the container is filled. Remove containers of waste/recycled materials from the work site within forty-eight (48) hours of being filled.
- B. Transport filled containers from the work site directly to an approved disposal site or recycling center.
- C. All fluorescent light ballasts shall be removed. Those labeled "NO PCBs" shall be packaged separately from those which indicate PCB or do not indicate PCB condition.
- D. Subject to Owner's approval, the Contractor shall arrange with the electric utility provider for the removal of transformers which are owned by the utility provider from the site.
- E. Subject to Owner's approval, the Contractor shall test, remove and dispose of all transformers which are not owned by the electric utility provider.
- F. Continuously maintain custody of all waste/recycled material generated at the work site including security, short-term storage, transportation and disposition until custody is transferred to an approved disposal site or recycling center.

- G. Do not remove, or cause to be removed, hazardous waste from property without a legally executed Uniform Hazardous Waste manifest.
- H. At completion of hauling and disposal of each load, submit copy of waste manifest, chain of custody form, and landfill/recycling facility receipt to PBCC.

### 3.7 RECYCLING AND RECOVERY

- A. Turn over waste which contains materials for which recovery and/or recycling is possible to an approved recycling center. Materials subject to recycling include, but are not limited to:
  - 1. Fluorescent light tubes.
  - 2. Thermostats with mercury switches.
  - 3. Lead acid batteries.
  - 4. Combustible lead-based painted building components and lead-based paint chips.
  - 5. Ethylene Glycol or other related fluids found within cooling systems.
  - 6. Non-PCB-containing oils.

### 3.8 STORAGE & TRANSPORTATION OF REFRIGERANTS / CFCs

- A. Use proper storage vessel when recovering refrigerants.
  - 1. IDOT containers meeting the ARI standard.
  - 2. Container working pressure rating must comply with IDOT requirements (49 CFR).
    - a. For Refrigerant HCFC-22: Minimum working pressure rating of 260 psig.
    - b. For Refrigerant CFC-11 (Low-Pressure Refrigerants): Drums of steel construction and designated as 17C or 17E.
  - 3. Open top and plastic drums shall not be used.
  - 4. Previously filled, disposable cylinders shall not be used to store or transport recovered refrigerants.
- B. All recovery vessels shall be visually inspected by the Contractor prior to filling. The Contractor shall inspect and provide the following upon request:
  - 1. Verification of proper IDOT specification.
  - 2. Pressure rating verification.
  - 3. Current hydrostatic test date.
  - 4. Cylinder shall be free of surface dents and imperfections.
- C. Provide required labeling for recovery vessel.
- D. Return all refrigerant to reclamation facilities to be reprocessed to ARI 700 1988 Standards or dispose in an approved facility.
- E. The Contractor shall provide PBCC with required documents for CFC Refrigerant/Reclamation.

### 3.9 REMOVAL OF NON-HAZARDOUS WASTE MATERIAL

- A. Transport and legally dispose of non-hazardous waste products, materials, residues and refuse.
- B. Non-hazardous waste products, materials, residues and refuse include, but are not necessarily limited to:

1. Materials which are determined to be non-hazardous wastes through objective sampling in accordance with EPA Document SW-846 and laboratory analysis in accordance with EPA Method 1311.
  2. Emptied hazardous material containers: containers holding a material with constituents listed on the MSDS as hazardous.
    - a. When a container is emptied of its hazardous contents by pouring or scraping so that less than one inch of material remains in the bottom of the container, the container is considered “empty” and is not in itself a hazardous waste.
    - b. Emptied hazardous material containers may be disposed of as construction debris waste (i.e. non-hazardous).
  3. Personal protective clothing and safety equipment with de minimis or trace contamination.
- C. Keep premises in a clean and orderly condition during performance of all work.
- D. Place non-hazardous construction debris wastes in secure containers for local landfill disposal on a daily basis.

#### **PART 4 - MEASUREMENT AND PAYMENT**

- 4.1 BASE CONTRACT PRICE – All work specified in this Section shall be included in the Base Contract Price.

**END OF SECTION**