THE CHICAGO EXPERIENCE,

Making Green Routine

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Library Journal
Chicago Public Library

Design Institute
December 11, 2007

INTRODUCTION

MARY A. DEMPSEY,

CHICAGO PUBLIC LIBRARY

COMMISSIONER

ERIN LAVIN CABONARGI,

PUBLIC BUILDING COMMISSION OF CHICAGO

DIRECTOR OF PLANNING AND DESIGN

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PUBLIC BUILDING COMMISSION

- ESTABLISHED ON JULY 25, 1956
- 11 SEAT COMMISSION, CHAIRED BY THE MAYOR OF THE CITY OF CHICAGO
- AUTHORITY TO ISSUE REVENUE BONDS FOR THE CONSTRUCTION OF GOVERNMENT BUILDINGS
- ACT AS A DEVELOPER WITH THE ABILITY TO FINANCE, DESIGN & BUILD GOVERNMENT FACILITIES

INTRODUCTION

TODAY

- OVER 65 PROJECTS IN PLANNING, DESIGN OR CONSTRUCTION

- CLIENTS INCLUDE
  - CHICAGO PUBLIC LIBRARY
  - CHICAGO PUBLIC SCHOOLS
  - CITY COLLEGES OF CHICAGO
  - CHICAGO PARK DISTRICT
  - CHICAGO FIRE DEPARTMENT
  - CHICAGO POLICE DEPARTMENT
  - CHICAGO DEPARTMENT OF ENVIRONMENT
  - CHICAGO DEPARTMENT ON AGING
  - CHICAGO DEPARTMENT OF FLEET MANAGEMENT

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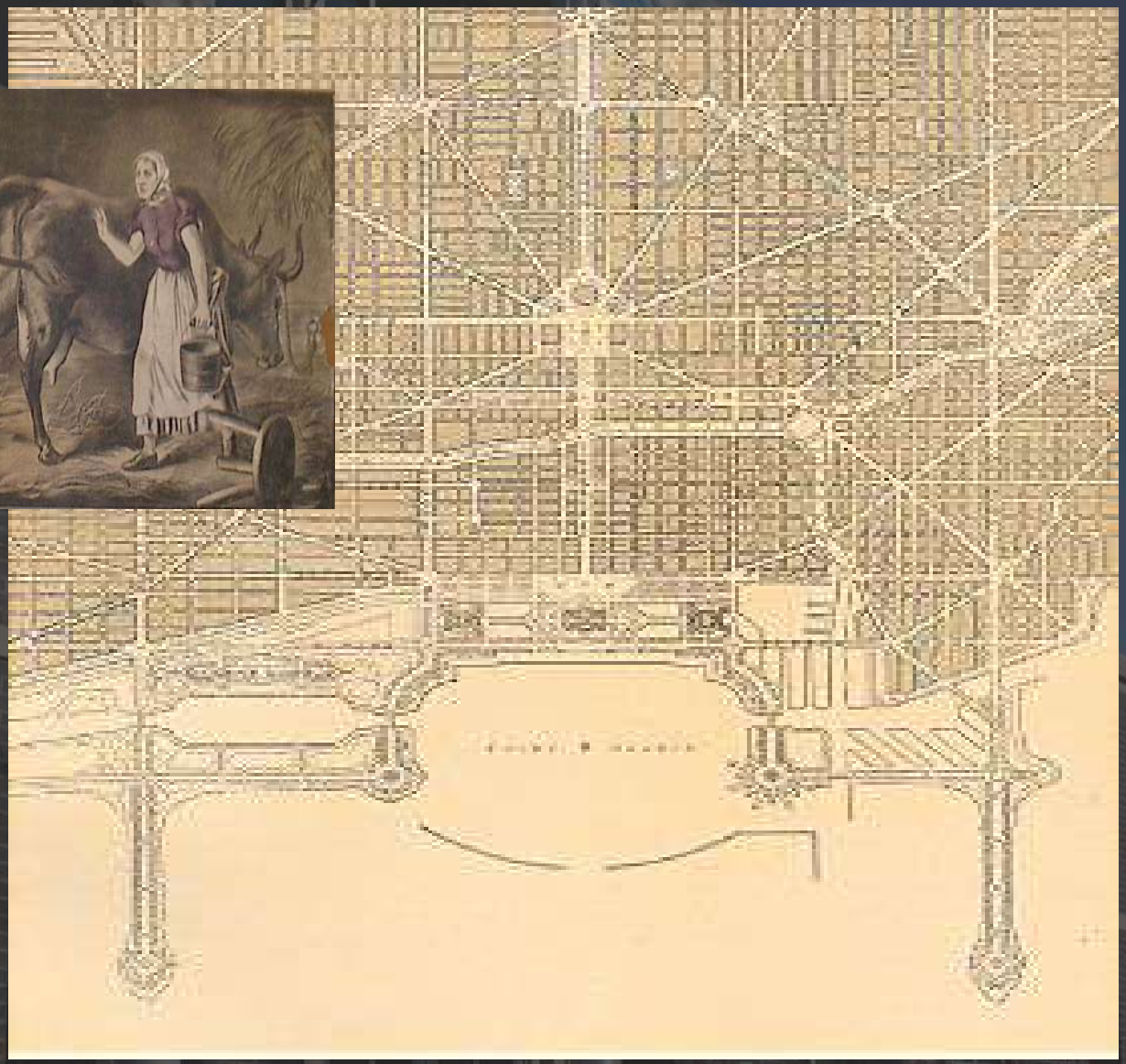

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LINCOLN BELMONT BRANCH

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PROTOTYPE FACILITIES - LIBRARIES

LOGAN SQUARE BRANCH

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LEED CERTIFICATION

- THE PBC HAS 37 PROJECTS REGISTERED WITH THE USGBC
- 10 PROJECTS HAVE ACHIEVED LEED CERTIFICATION
  - 6 CERTIFIED LEVEL
  - 3 SILVER RATED
  - 1 PLATINUM RATED
- OF THE 10 PROJECTS HAVING ACHIEVED CERTIFICATION, 7 ARE BRANCH LIBRARIES

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GERMINATION,

Developing a Unified Vision

LEADERSHIP

INTERAGENCY COORDINATION

- GREEN PERMITTING
- GREEN CLEANING

GOAL SETTING

CROSS POLLINATION

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A/E SERVICE CONTRACT LANGUAGE

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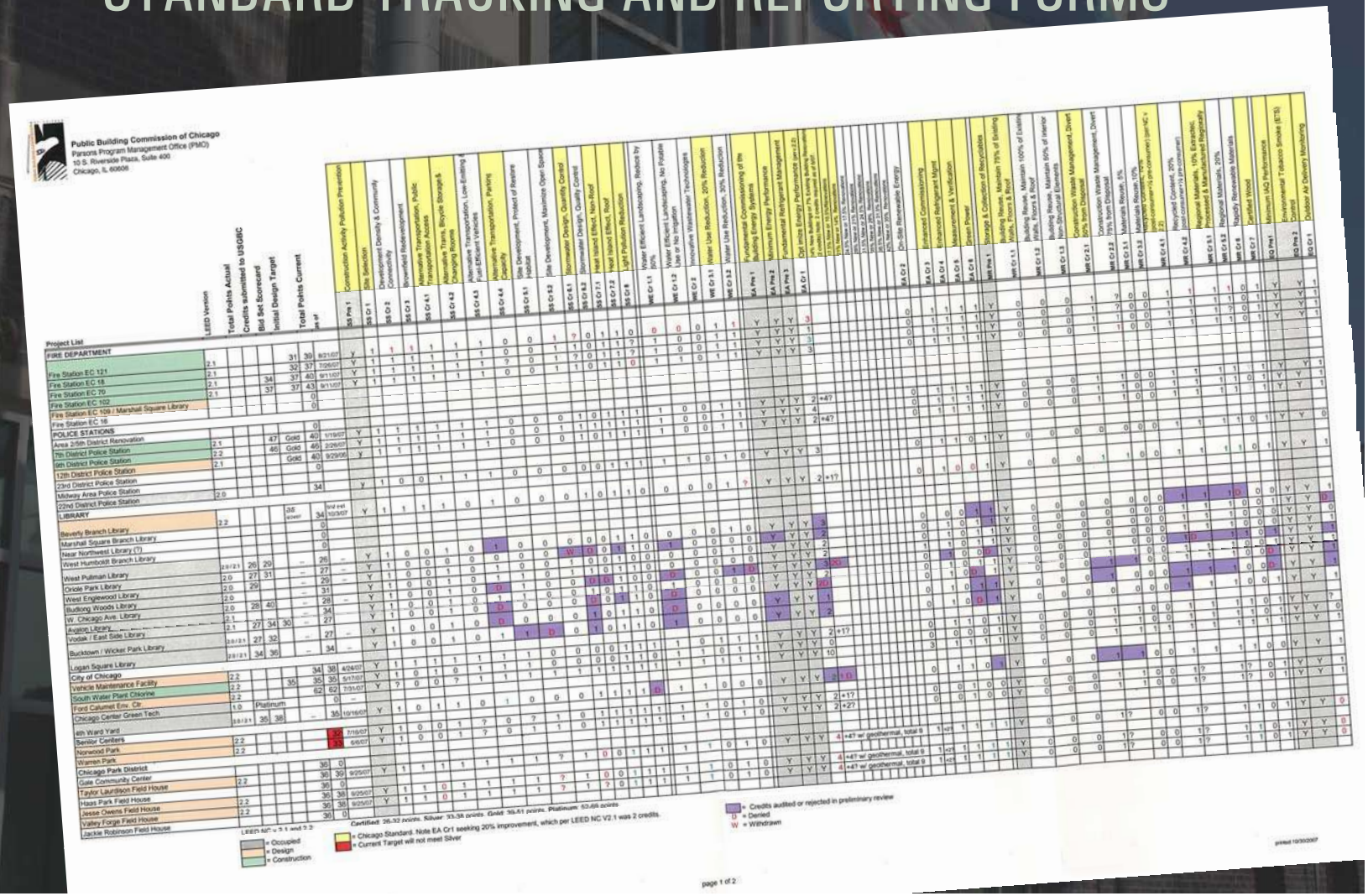

Public Building Commission of Chicago
Parsons Program Management Office (PMO)
10 S. Riverside Plaza, Suite 400
Chicago, IL 60606

Project List

FIRE DEPARTMENT
- Fire Station EC 121
- Fire Station EC 18
- Fire Station EC 70
- Fire Station EC 102
- Fire Station EC 109 / Marshall Square Library
- Fire Station EC 16

POLICE STATIONS
- Area 2/5th District Renovation
- 7th District Police Station
- 9th District Police Station
- 12th District Police Station
- 23rd District Police Station
- Midway Area Police Station
- 22nd District Police Station

LIBRARY
- Beverly Branch Library
- Marshall Square Branch Library
- Near Northwest Library (?)
- West Humboldt Branch Library
- West Pulman Library
- Oriole Park Library
- West Englewood Library
- Budlong Woods Library
- W. Chicago Ave. Library
- Avalon Library
- Vodak / East Side Library
- Bucktown / Wicker Park Library
- Logan Square Library

City of Chicago
- Vehicle Maintenance Facility
- South Water Plant Chlorine
- Ford Calumet Env. Ctr.
- Chicago Center Green Tech
- 4th Ward Yard
- Benito Centers
- Norwood Park
- Warren Park

Chicago Park District
- Gale Community Center
- Taylor Lauridson Field House
- Haas Park Field House
- Jesse Owens Field House
- Valley Forge Field House
- Jackie Robinson Field House

Columns: LEED Version; Total Points Actual; Credits submitted to USGBC; Bid Set Scorecard; Initial Design Target; Total Points Current; Date of; SS Pre 1; SS C 1; SS C 2; SS C 3; SS C 4.1; SS C 4.2; SS C 4.3; SS C 4.4; SS C 5.1; SS C 5.2; SS C 6.1; SS C 6.2; SS C 7.1; SS C 7.2; SS C 8; WE C 1.1; WE C 1.2; WE C 2; WE C 3.1; WE C 3.2; EA Pre 1; EA Pre 2; EA Pre 3; EA C 1; EA C 2; EA C 3; EA C 4; EA C 5; EA C 6; MR Pre 1; MR C 1.1; MR C 1.2; MR C 1.3; MR C 2.1; MR C 2.2; MR C 2.3; MR C 3.1; MR C 3.2; MR C 4.2; MR C 4.3; MR C 5.1; MR C 5.2; MR C 6; MR C 7; IQ Pre 1; IQ Pre 2; IQ C 1

Construction Activity Pollution Prevention; Site Selection; Development Density & Community Connectivity; Brownfield Redevelopment; Alternative Transportation, Public Transportation Access; Alternative Trans, Bicycle Storage & Changing Rooms; Alternative Transportation, Low-Emitting & Fuel-Efficient Vehicles; Alternative Transportation, Parking Capacity; Site Development, Protect of Restore Habitat; Site Development, Maximize Open Space; Stormwater Design, Quantity Control; Stormwater Design, Quality Control; Heat Island Effect, Non-Roof; Heat Island Effect, Roof; Light Pollution Reduction; Water Efficient Landscaping, Reduce by 50%; Water Efficient Landscaping, No Potable Use or No Irrigation; Innovative Wastewater Technologies; Water Use Reduction, 20% Reduction; Water Use Reduction, 30% Reduction; Fundamental Commissioning of the Building Energy Systems; Minimum Energy Performance; Fundamental Refrigerant Management; Optimize Energy Performance (pre-LEED); 5% New Buildings or 7% Existing Buildings (provides total 2 credits depending on project); 10% New or 14.5% Renovation; 15% New or 21% Renovation; 20% New or 28.5% Renovation; 25% New or 35.5% Renovation; 30% New or 42.5% Renovation; On-Site Renewable Energy; Enhanced Commissioning; Enhanced Refrigerant Mgmt; Measurement & Verification; Green Power; Storage & Collection of Recyclables; Building Reuse, Maintain 75% of Existing Walls, Floors & Roof; Building Reuse, Maintain 100% of Existing Walls, Floors & Roof; Building Reuse, Maintain 50% of Interior Non-Structural Elements; Construction Waste Management, Divert 50% from Disposal; Construction Waste Management, Divert 75% from Disposal; Materials Reuse, 5%; Materials Reuse, 10%; Recycled Content, 10% (post-consumer's pre-consumer); Recycled Content, 20% (post-consumer's pre-consumer); Regional Materials, 10% Extracted, Processed & Manufactured Regionally; Regional Materials, 20%; Rapidly Renewable Materials; Certified Wood; Minimum IAQ Performance; Environmental Tobacco Smoke (ETS) Control; Outdoor Air Delivery Monitoring

LEED NC v 2.1 and 2.2:
- = Occupied
- = Design
- = Construction

Certified: 26-32 points, Silver: 33-38 points, Gold: 39-51 points, Platinum: 52-69 points

- = Chicago Standard. Note EA Cr1 seeking 20% improvement, which per LEED NC V2.1 was 2 credits.
- = Current Target will not meet Silver

- = Credits audited or rejected in preliminary review
- D = Denied
- W = Withdrawn

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CULTIVATION,

Implementation Techniques for Successful Project Delivery

A/E SERVICE CONTRACT LANGUAGE

SCHEDULE A

SCOPE OF SERVICES

[INSERT PROJECT NAME]

CHICAGO, ILLINOIS

SCOPE OF SERVICES

[MODIFY THIS SCHEDULE A AS REQUIRED]

The Architect will provide all Services required to complete the coordinated design of the Project. The term of this Agreement will terminate when all Services required have been completed to the reasonable satisfaction of the Commission.

Commencement Date of Services: March 2, 2007

The Services are separated into two parts: Design/Engineering for Site Preparation and Design/Engineering for Vertical (Building) Construction. Phase I and Phase II are, in turn, each divided into phases: Schematic Design Phase; Design Development Phase; Construction Documents Phase; Bidding Phase; Construction Phase and Close Out Phase. The Deliverables (and any other work product) of each of the phases must be approved by the Authorized Commission Representative in writing before commencement of the subsequent or dependent phase.

The Architect will perform its Services promptly, with sufficient staffing to achieve the dates in Schedule C, Project Schedule.

The Authorized Commission Representative will assist the Commission in managing the Project and will have the authority, as specifically directed by the Executive Director, to act on its behalf.

I. **SCHEMATIC DESIGN**

During the Schematic Design phase, the Architect shall provide the following Services:

A. Consultation with the Commission, the User Agency and others, as appropriate, regarding requirements of the Project, including the total Project Budget (comprised of the Site Preparation and Building Construction scope of work).

including confirmation of the established ation with the Commission

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Section 20.08 LEED Certification Requirements

1. The Contractor must assist the PBC to achieve the LEED Certification level required for this project. The LEED Scorecard (Registered Project Checklist) identifying the LEED version and level, as well as prerequisites and credits to be achieved, is found in Book 3, Division 1. The Contractor must implement construction of the Project and provide documentation, in accordance with the requirements of the LEED version promulgated by the US Green Building Council indicated in Book 3, Division 1, so that the Commission can achieve the LEED rating identified in Book 3, Division 1.

2. The Contractor must have a LEED Accredited Professional (LEED AP) assist the Contractor in fulfilling all LEED required tasks. The LEED AP must have had LEED experience in projects of a similar size and complexity, in order to be approved by the Commission.

3. Regarding commissioning of the Project systems, the Contractor must provide the appropriate labor to operate, adjust, and observe the systems, as directed by the Commissioning Authority to ensure that all the LEED requirements for commissioning of the heating ventilation and air conditioning systems and the electrical systems and other systems to be commissioned as identified in the Technical Specifications are met.

4. The Contractor must make all required LEED submittals to the Commission Representative. The format and number of submittals must be approved by the Commission.

5. The Contractor must take the actions listed below, regarding LEED, within the time periods specified.

...rifications must be submitted with fifteen (15) calendar days

...(15) days

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5. The Contractor must take the actions listed below, regarding LEED, within the time periods specified.

   a. Contractor LEED AP qualifications must be submitted with fifteen (15) calendar days of the Notice to Proceed (NTP).

   b. Erosion and Sedimentation Control Plan must be submitted within fifteen (15) days of the NTP. The Contractor must implement the approved Plan prior to start of work on the Project site. The Contractor may be required to incorporate or maintain an existing Plan from a previous phase of the work.

   c. Construction Waste Management Plan must be submitted within fifteen (15) days of NTP. The Construction Waste Management Coordinator must be identified and the approved plan be completed prior to the start of construction.

   d. Materials and Resources Plan must be submitted within thirty (30) days of the NTP

   e. Volatile Organic Compounds Plan must be submitted within thirty (30) days of NTP

   f. Construction Indoor Air Quality Plan must be submitted within thirty (30) days of NTP.

6. Other requirements of the Contract Documents regarding LEED are found in Book Three, Division 1 General Requirements and various provisions in Book 3 Technical Specifications.

HARVEST,

Recognizing the Impact of Actions Taken

SUSTAINABLE SITES

-CONSTRUCTION ACTIVITY POLLUTION PREVENTION
-SITE SELECTION
-DEVELOPMENT DENSITY & COMMUNITY CONNECTIVITY
-BROWNFIELD REDEVELOPMENT
-ALTERNATIVE TRANSPORTATION, PUBLIC TRANSPORTATION ACCESS
-ALTERNATIVE TRANSPORTATION, LOW EMITTING & FUEL EFFICIENT VEHICLES
-ALTERNATIVE TRANSPORTATION, PARKING CAPACITY / CARPOOLING
-STORMWATER DESIGN, QUANTITY CONTROL
-HEAT ISLAND EFFECT – NON ROOF
-HEAT ISLAND EFFECT - ROOF

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WATER EFFICIENCY

- *WATER EFFICIENT LANDSCAPING, REDUCE POTABLE WATER USE BY 50%*
- *WATER EFFICIENT LANDSCAPING, NO POTABLE USE OR NO IRRIGATION*
- WATER USE REDUCTION, 20 % REDUCTION
- WATER USE REDUCTION, 30 % REDUCTION

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ENERGY & ATMOSPHERE

- FUNDAMENTAL COMMISSIONING OF BUILDING ENERGY SYSTEMS
- MINIMUM ENERGY PERFORMANCE
- FUNDAMENTAL REFRIGERANT MANAGEMENT
- *OPTIMIZED ENERGY PERFORMANCE*
- ENHANCED COMMISSIONING
- ENHANCED REFRIGERANT MANAGEMENT
- MEASUREMENT AND VERIFICATION
- GREEN POWER

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MATERIALS AND RESOURCES

- STORAGE AND COLLECTION OF RECYCLABLES
- CONSTRUCTION WASTE MANAGEMENT, DIVERT 50 % FROM DISPOSAL
- CONSTRUCTION WASTE MANAGEMENT, DIVERT 75 % FROM DISPOSAL
- RECYCLED CONTENT, 10 % (POST CONCUMER & ½ POST INDUSTRIAL)
- RECYCLED CONTENT, 20 % (POST CONCUMER & ½ POST INDUSTRIAL)
- REGIONAL MATERIALS, 10 % EXTRACTED, PROCESSED AND MANUFACTURED REGIONALLY
- CERTIFIED WOOD

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INDOOR ENVIRONMENTAL QUALITY

- MINIMUM IAQ PERFORMANCE
- ENVIRONMENTAL TOBACCO SMOKE CONTROL
- OUTDOOR AIR DELIVERY MONITORING
- CONSTRUCTION IAQ MANAGEMENT PLAN, DURING CONSTRUCTION
- CONSTRUCTION IAQ MANAGEMENT PLAN, BEFORE OCCUPANCY
- LOW EMITTING MATERIALS, ADHESIVES AND SEALANTS
- LOW EMITTING MATERIALS, CARPET
- LOW EMITTING MATERIALS, COMPOSITE WOOD & AGRIFIBER PRODUCTS
- INDOOR CHEMICAL & POLLUTANT SOURCE CONTROL
- CONTROLLABILITY OF SYSTEMS, THERMAL COMFORT
- THERMAL COMFORT, DESIGN
- DAYLIGHT & VIEWS, DAYLIGHT 75 % OF SPACES
- DAYLIGHT & VIEWS, DAYLIGHT 90 % OF SPACES

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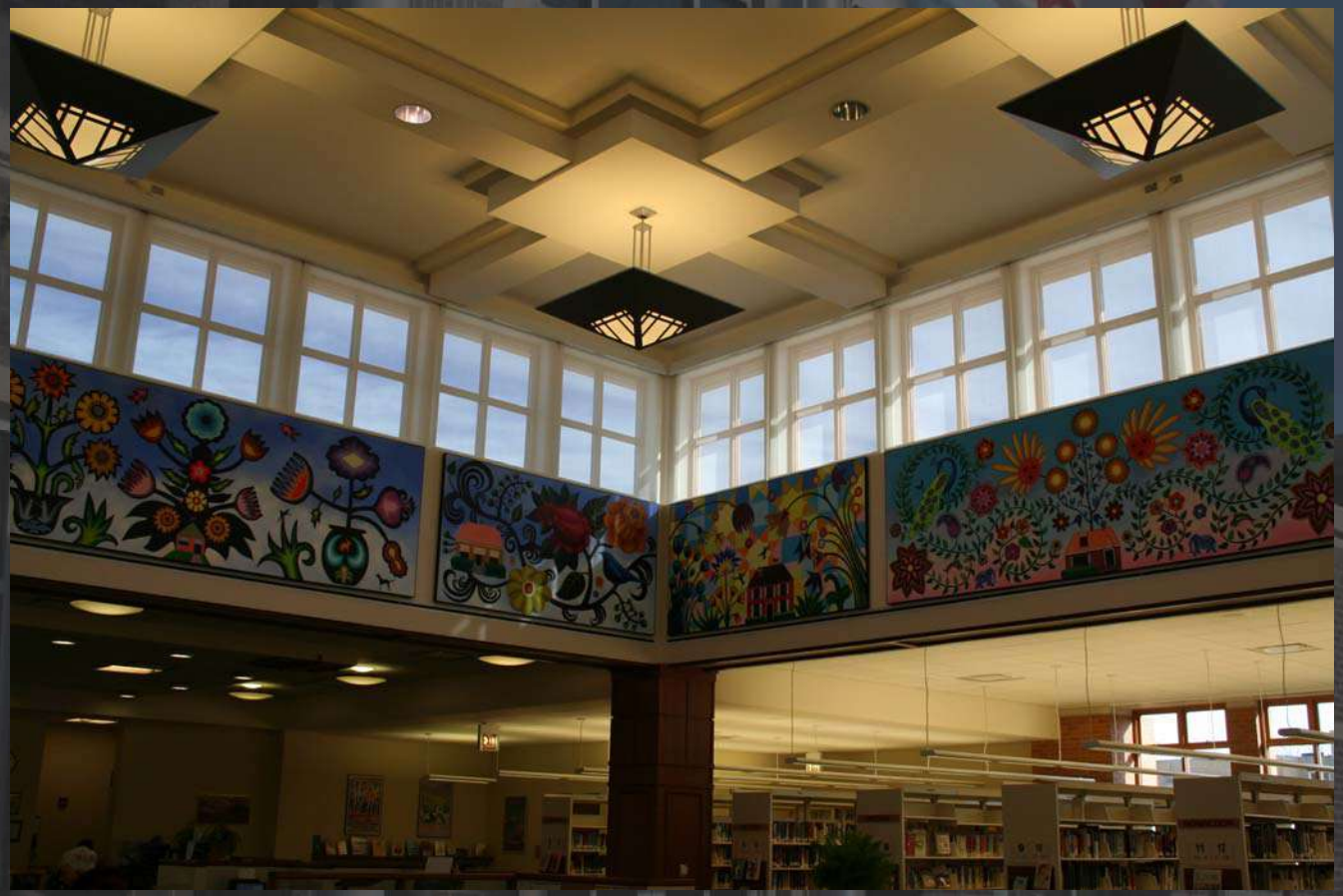

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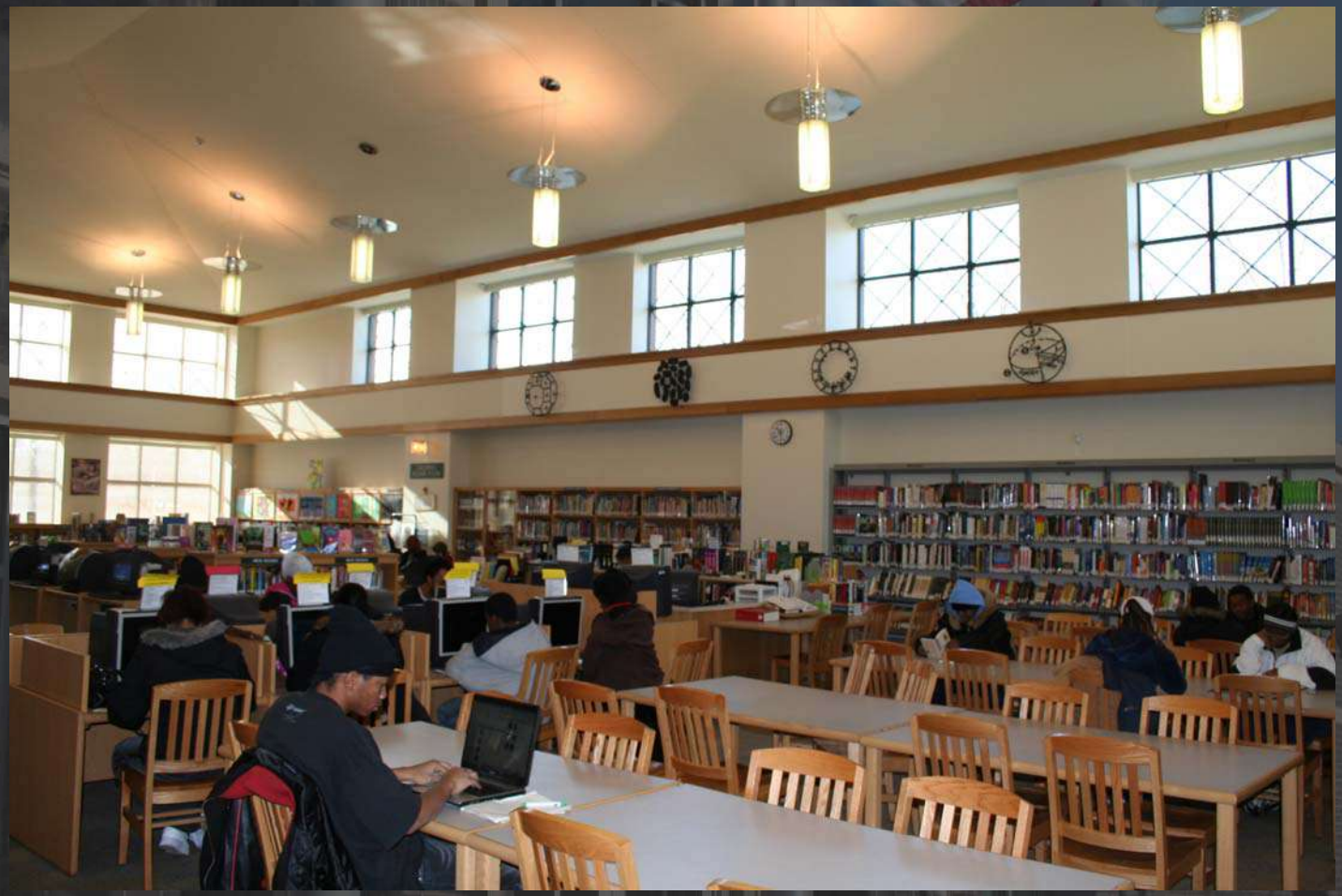

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INNOVATION & DESIGN PROCESS

- INNOVATION IN DESIGN, GREEN HOUSEKEEPING
- INNOVATION IN DESIGN, INTEGRATED PEST MANAGEMENT
- INNOVATION IN DESIGN, EXEMPLARY PERFORMANCE
    - NON ROOF HEAT ISLAND REDUCTION
    - STORMWATER MANAGEMENT
    - LOCAL / REGIONALLY MANUFACTURED MATERIALS
    - RECYCLED CONTENT
- INNOVATION IN DESIGN, EDUCATIONAL KIOSK
- LEED ACCREDITED PROFESSIONAL

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