PROJECT 02
LIBRARY FOR THE 21ST CENTURY

ARC 3210 | Architecture Design Studio IV | Prof. Brandon Ro, AIA, NCARB

PHASE 1 – PRE-DESIGN

PRE-DESIGN

Before an architect begins the design process for a building, there are times when a project's definition needs additional information. These types of activities are called pre-design services and can include the following:

- Site evaluation, analysis, and selection
- Geotechnical and structural studies
- Traffic studies
- Existing building documentation
- Programming
- Conceptual studies
- Blocking and stacking diagrams
- Project scheduling
- Project budgeting

For this project in the pre-design phase, each team of students will conduct the following research:

A) **Precedent analysis** through the study of an existing library to better understand institutional typologies
B) **Programming analysis** to understand user and space needs as well as adjacency requirements
C) **Site analysis** to identify urban planning opportunities and contextual issues related to the historic district
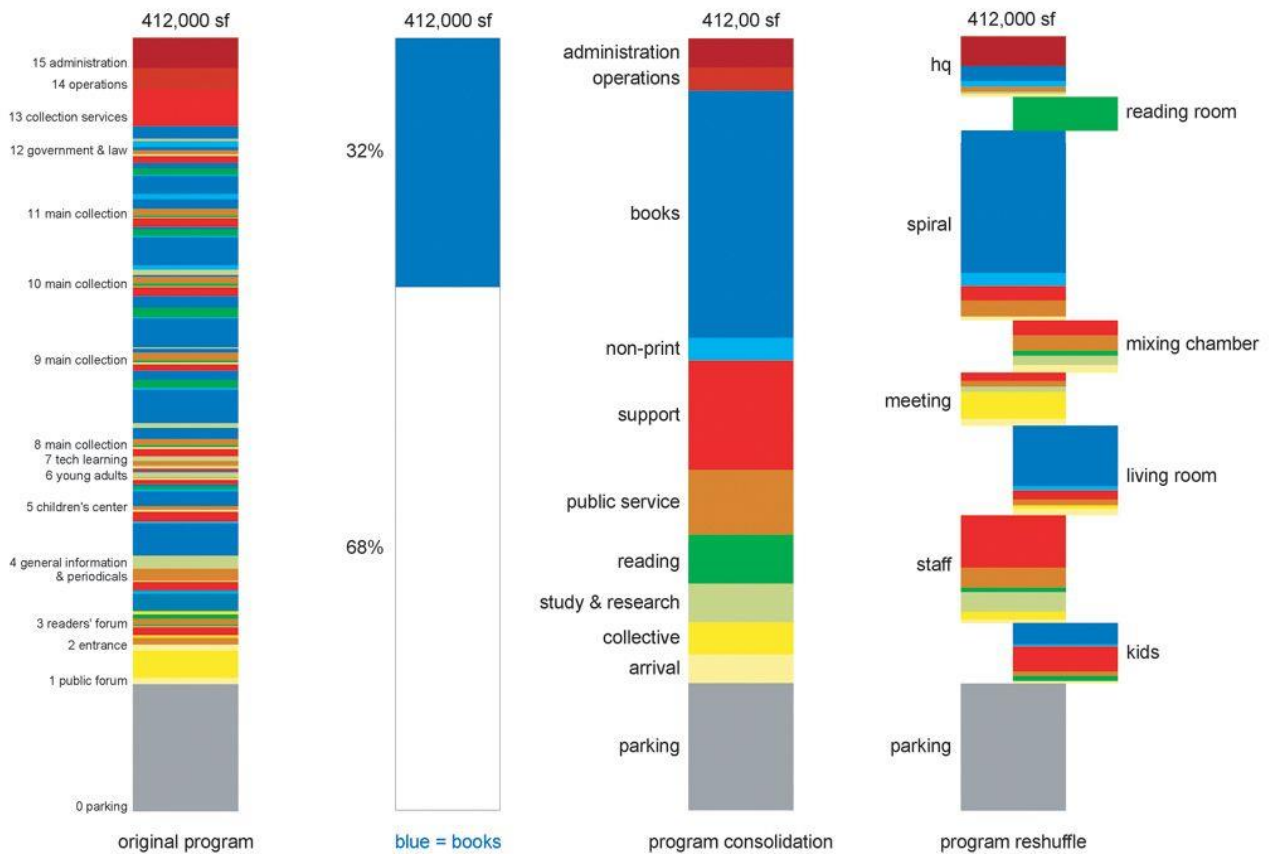D) **Site model** will be produced as part of site analysis

TEAMWORK

For the Pre-Design Phase students will assemble themselves into teams.

REQUIREMENTS + FORMAT

All analyses may be produced using digital or analog methods. The final presentation format will be on 11"x17" sheets. These will be presented in both digital (PDF) and printed pin up format. Each team must develop a consistent and professional presentation that is clear to read when pinned up on a wall. Each team's research will include a cover sheet with the name of each team member.
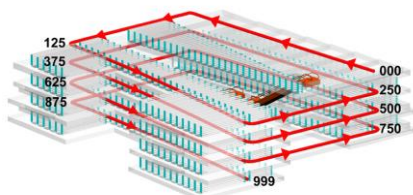
Each presentation sheet should include the following:
- Building name
- Building location
- Architect
- Date of construction
- North arrow
- Graphic scale
- Drawing type label (Ground floor plan, East elevation, section)
- Name of type of analysis or principle being conveyed

original program | blue = books | program consolidation | program reshuffle

PART A: PRECEDENT ANALYSIS

In order to help students understand the complex nature of institutional building typologies, each team will perform precedent analysis for an existing library.
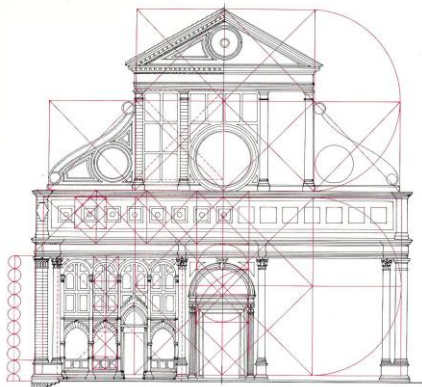
LIBRARY PRECEDENTS
Each team must select a library precedent to study and analyze from the following list of buildings.

- Bodleian Library - Oxford, U.K.
- National Library of Lithuania
- Mafra National Palace Library, Lisbon, Portugal

- National Library of Brazil - Rio de Janeiro, Brazil
- Old Library, Trinity College Library Dublin - Dublin, Ireland
- Copenhagen University Library, Denmark
- Library of Parliament, Ottawa, Canada
- Austrian National Library - Vienna, Austria
- Clementinum National Library - Prague, Czech Republic
- National Library of France by Henri Labrouste, Paris
- National Library of Finland, Helsinki
- Rotunda, University of Virginia, VA
- Trible Library, Christopher Newport University, Newport News, VA
- Free Library of Philadelphia, Passyunk Brank, PA
- Library of Congress, DC
- Carnegie Library, DC
- George Peabody Library, Johns Hopkins University - Baltimore, MD
- Los Angeles Public Library - Los Angeles, CA
- Doe Library, UC Berkeley, CA
- Detroit Public Library, MI
- Cleveland Public Library, OH
- Low Memorial Library, Columbia University, NYC
- Earl Hall Library, Columbia University, NYC
- Hamilton Grange Branch Library, NYC
- Mt. Morris Branch Library, Harlem, NYC
- St. Gabriel's Branch Library, NYC
- 115th Street Branch Public Library, NYC
- Library of J. Pierpont Morgan, NYC
- Stephen A. Schwarzman Building – New York Public Library Main Branch
- New York University Library, NYC
- Howard Whittemore Memorial Library, Naugatuck, Connecticut
- Boston Public Library, MA
- Huntington Library and Art Museum, Pasadena
- Chapman Branch Public Library, Salt Lake City, UT
- Sprague Branch Public Library, Salt Lake City, UT
- Carnegie Public Library, Boise, ID
- Carnegie Public Library, Athens, GA

Each library precedent should be analyzed in four separate ways using plans, sections, elevations, diagrams, exploded isometrics, photographs, etc.
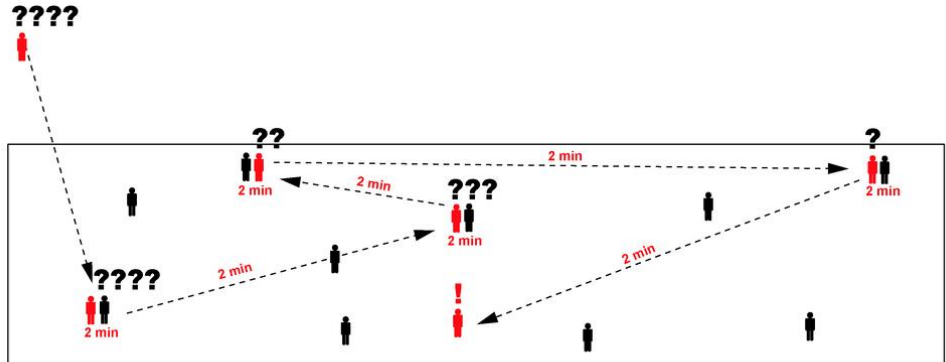
- **Form**: Building massing / hierarchy
- **Rhythm**: Elevation composition / Proportion
- **Space**: Program organization / Circulation or Spatial Sequence
- **Details**: Reading room strategy / Lighting / Ornament
- **Reflection** - Write a paragraph summarizing the findings from program analysis

PART B: PROGRAM ANALYSIS

Each team will analyze the Spanish Fork program and feasibility study document as well as the Design Public Input Survey Summary for the new library in four separate ways.

- **Program opportunities** - summarize adjacency, issues, opportunities from the survey.
- **Bubble diagram** - showing potential relationships between program spaces. Should consider differentiation between patron/librarian spaces (BOH/FOH).
- **Space Size / Usage Matrix** - 3D diagram showing relative sizes of program organized by usage.
- **Reflection** - Write a paragraph summarizing the findings from program analysis

TRADITIONAL:
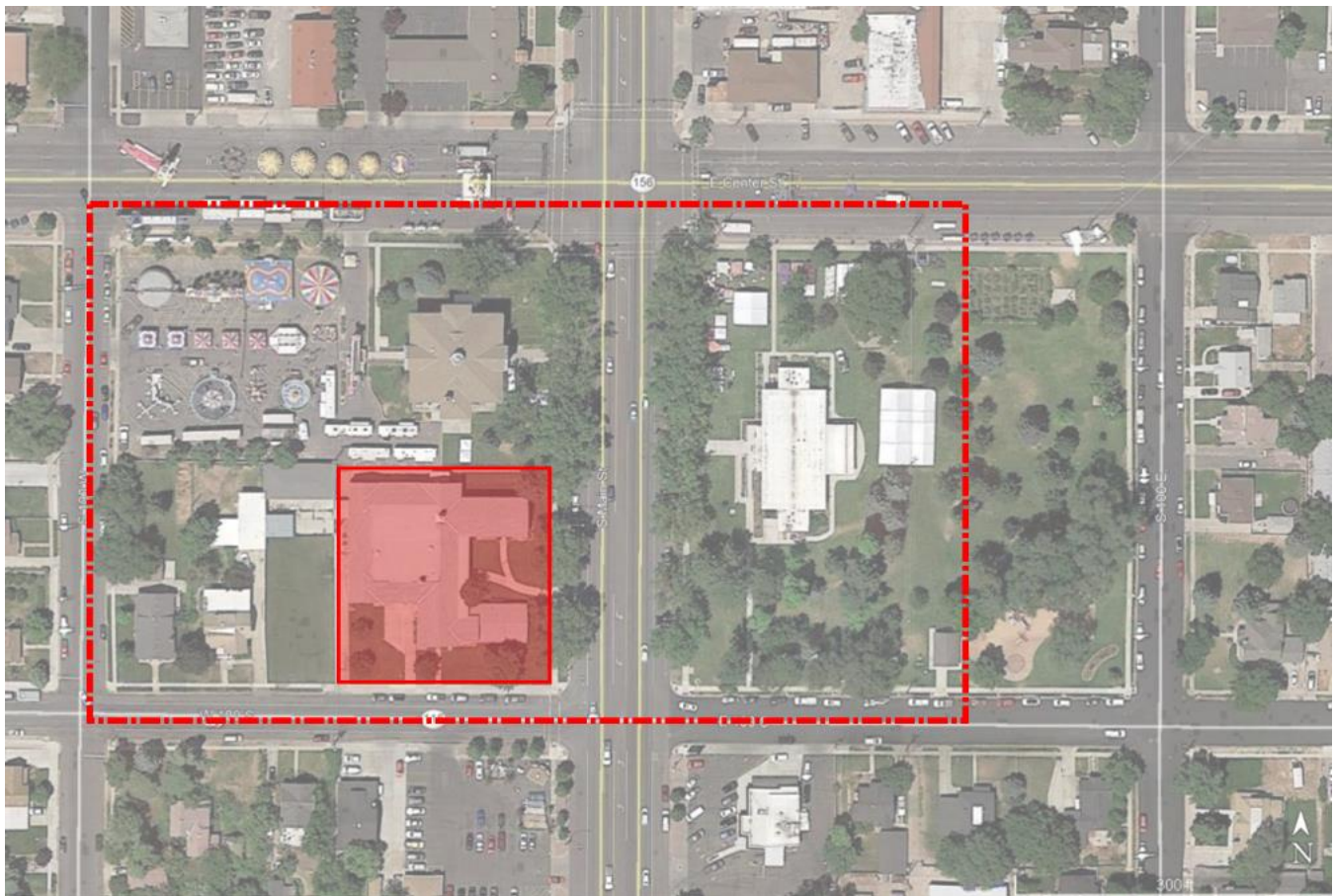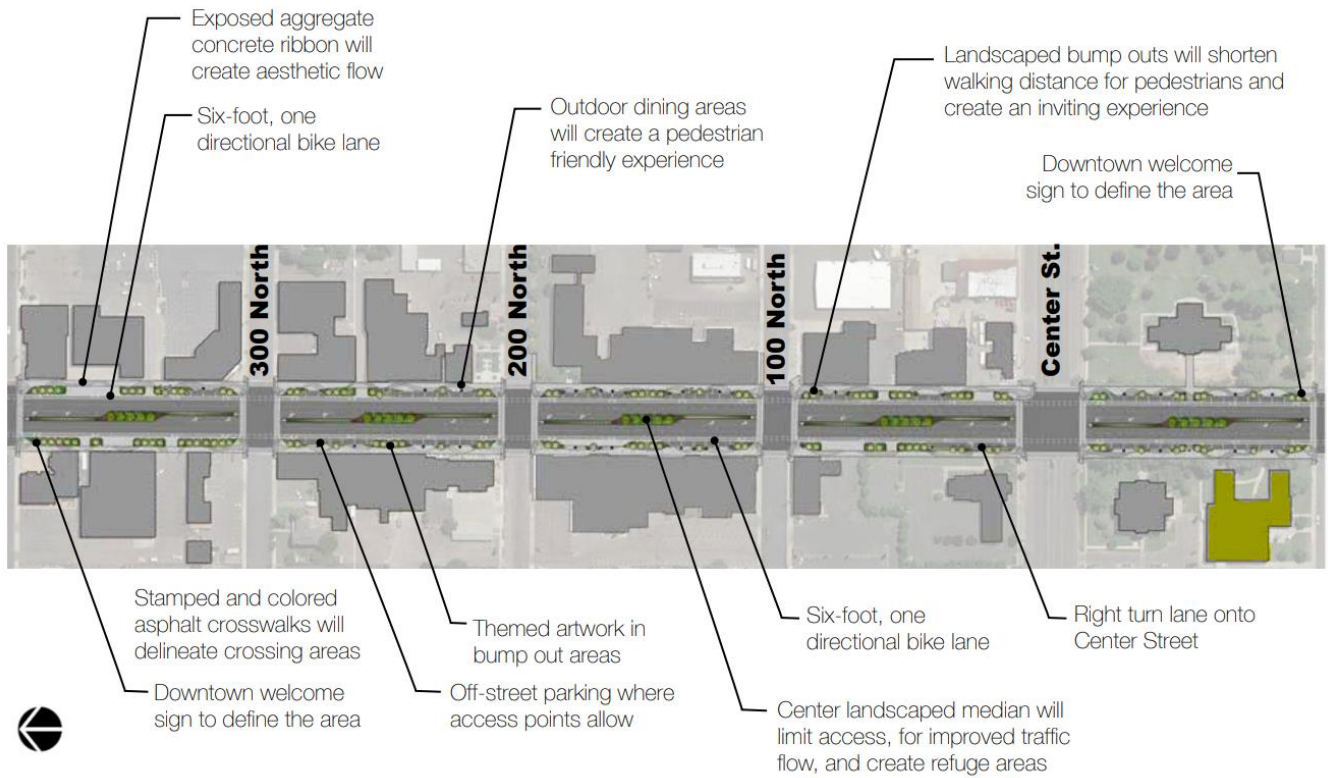
LIBRARIAN =

PATRON =

SEARCH TIME ELAPSED: 16 MINUTES

PART C: SITE ANALYSIS

Teams will analyze the site and context for their library in a variety of ways outlined below. The analysis can be conveyed in a number of ways using plans, sections, elevations, diagrams, exploded isometrics, photographs, etc.

- **Immediate site historic context** (study buildings along Main Street)
- **Social / Demographics** (see SF Library Design Public Input Survey Summary)
- **Masterplan / Site Zoning / Historic Main Street Design Requirements** (see SF Main Street Study, APA CPAT Report, General Land Use Plan)
- **Reflection** - Write a paragraph summarizing the findings from program analysis

Exposed aggregate concrete ribbon will create aesthetic flow

Six-foot, one directional bike lane

Outdoor dining areas will create a pedestrian friendly experience

Landscaped bump outs will shorten walking distance for pedestrians and create an inviting experience

Downtown welcome sign to define the area

300 North

200 North

100 North

Center St.

Stamped and colored asphalt crosswalks will delineate crossing areas

Themed artwork in bump out areas

Six-foot, one directional bike lane

Right turn lane onto Center Street

Downtown welcome sign to define the area

Off-street parking where access points allow

Center landscaped median will limit access, for improved traffic flow, and create refuge areas

PART D: SITE MODEL

One member from each team will be dedicated to producing a single class site model. Costs of the model will be divided among the entire class. The site model must meet the following requirements:

- 1/16" = 1'-0" Scale
- Extents of model will capture area dashed in red above
- Extents will include some of the immediate site context such as streets, sidewalks, buildings, trees, etc.
- Adjacent historic buildings on the site must be drawn in CAD and capture major details, changes in materials, etc. This will be used for both lazer cutting and final elevation drawings

RELATED READING/VIDEOS

PROGRAMMING
- Pena, William M. *Problem Seeking: An Architectural Programming Primer*. HOK.
- Hershberger, Robert G. "Planning-Predesign Services," in *The Architect's Handbook of Professional Practice*.

PRECEDENT ANALYSIS
- Ching, Frank. *Architecture: Form, Space, & Order*. 3rd ed. Hoboken, NJ: John Wiley & Sons, 2007.*
- Clark, Roger H., and Michael Pause. *Precedents in Architecture: Analytic Diagrams, Formative Ideas, and Partis*. 3rd ed. Hoboken, NJ: John Wiley & Sons, 2005.

LIBRARY STUDIES
- Bosser, Jacques. *The Most Beautiful Libraries of the World*. Thames & Hudson, 2003.
- Breisch, Kenneth A. *Henry Hobson Richardson and the Small Public Library in America: A Study in Typology*. Boston: MIT Press, 1997.
- Dierickx, Mary B. *The Architecture of Literacy: The Carnegie Libraries of New York City*. New York City: Cooper Union for the Advancement of Science and Art and the New York City Dept. of General Services, 1996.
- Hadley, Chalmers. *Library Buildings; Notes and Plans*. Chicago: American Library Association, 1924. https://books.google.com/books?id=vBQhAAAAMAAJ&printsec=frontcover#v=onepage&q&f=false
- Jones, Theodore. *Carnegie Libraries across America: A Public Legacy*. New York: Preservation Press, 1997.
- Lushington, Nolan, Wolfgang Rudorf, and Liliane Wong, eds. *Libraries: A Design Manual*. Basel, Switzerland: Birkhäuser, 2016.
- Lushington, Nolan. "Public Libraries in the United States." In *Libraries: A Design Manual*, edited by Nolan Lushington, Wolfgang Rudorf and Liliane Wong, 38-43. Basel, Switzerland: Birkhäuser, 2016.
- Swartzburg, Susan Garretson, Holly Bussey, and Frank Garretson. *Libraries and Archives: Design and Renovation with a Preservation Perspective*. Lanham, MD: Scarecrow Press, 1998. https://books.google.com/books?id=VT5w8Cav4bcC&printsec=frontcover#v=onepage&q&f=false
- Wheeler, Joseph Lewis, and Alfred Morton Githens. *The American Public Library Building: Its Planning and Design with Special Reference to Its Administration and Service*. New York: C. Scribner's Sons, 1941.

- Wheeler, Joseph Lewis. "The Effective Location of Public Library Buildings." *University of Illinois Library School: Occasional Papers*, no. 52 (1958): 1-50. https://www.ideals.illinois.edu/bitstream/handle/2142/4002/gslisoccasionalpv00000i00052.pdf?sequence=1&isAllowed=y

HISTORIC CONTEXTS ANALYSIS

- Steven Semes, "Where or When: Continuity and Contrast in Historic Settings," Paper presented at the 2015 Driehaus Foundation Built Environment Symposium, October 10, 2015. https://youtu.be/Vj0QGW3PRuo
- Juhani Pallasmaa, "Tradition and Newness" https://youtu.be/Rg9_XxxdNxg