

City of Oregon City Library and City Hall Energy Program

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ARCH 549 Architectural Programming

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Thesis Statement

The City of Oregon City cannot afford to build a desperately needed City Hall. Available funding would double if the City Hall and Public Library build a combined center. Uniting the Library and the City Hall into a Civic Center will strengthen the effectiveness and increase the efficiency of both functions.



Energy Consumption Goals

- The City of Oregon City is committed to building a Sustainable Future. By focusing on energy savings, the City will role model sustainability to the members of the community.
- Saving energy during construction and during operation of the building aligns with this goal. Combining the City Hall and Public Library will save energy during construction as they will be built at the same time, requiring fewer crews and less machinery as if they were built separately.
- Fewer construction materials will be needed because the total square footage decreases as similar programs are merged.

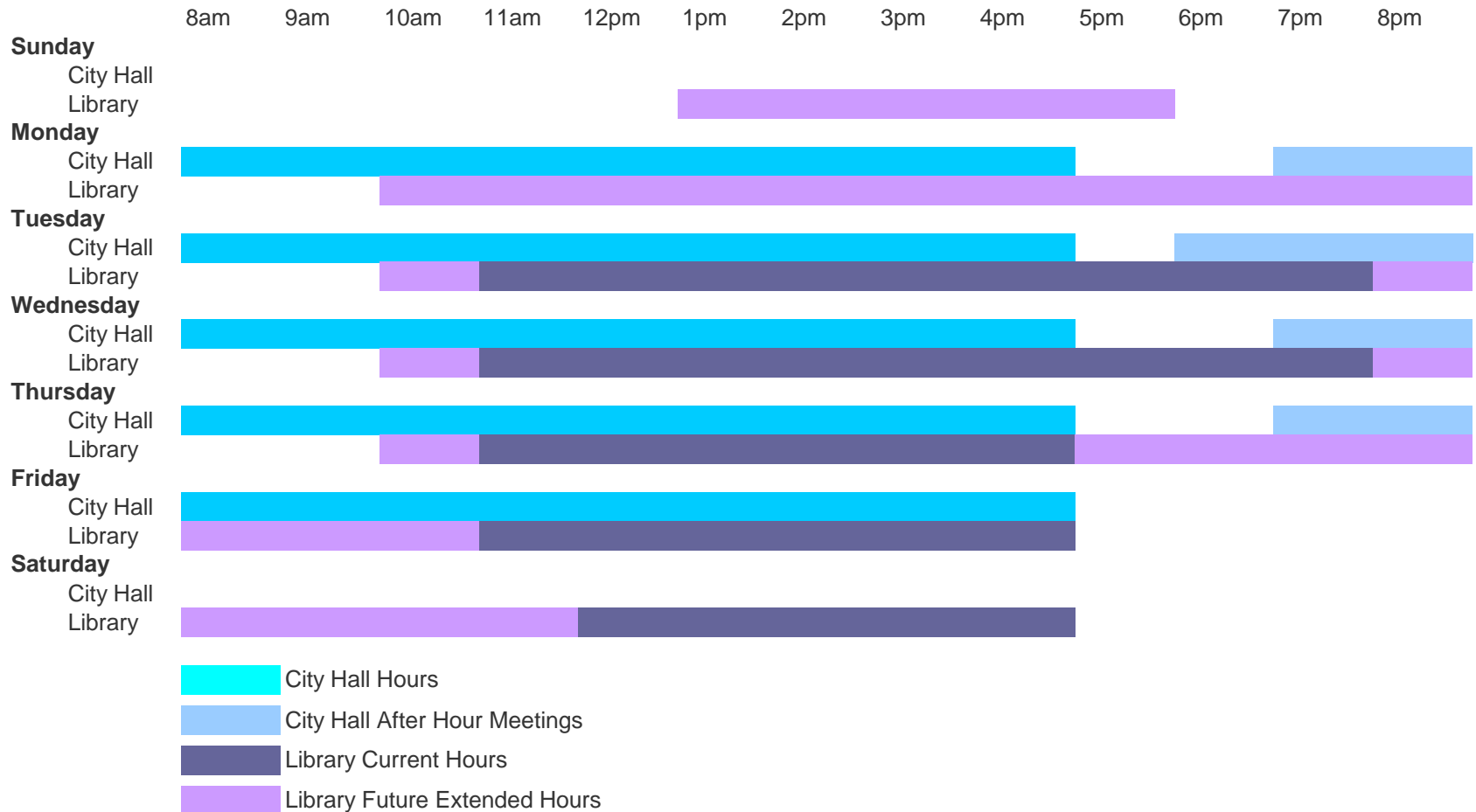


City Hall and Library Use

- City Hall
 - Council Chambers
 - Offices
 - Conference Rooms
 - Record Storage
 - Support Spaces (copy room, locker room, etc.)
- Library
 - Staff Workstations
 - Collections (books, DVD's, video games)
 - Seating
 - Support Spaces (book return, café, etc.)

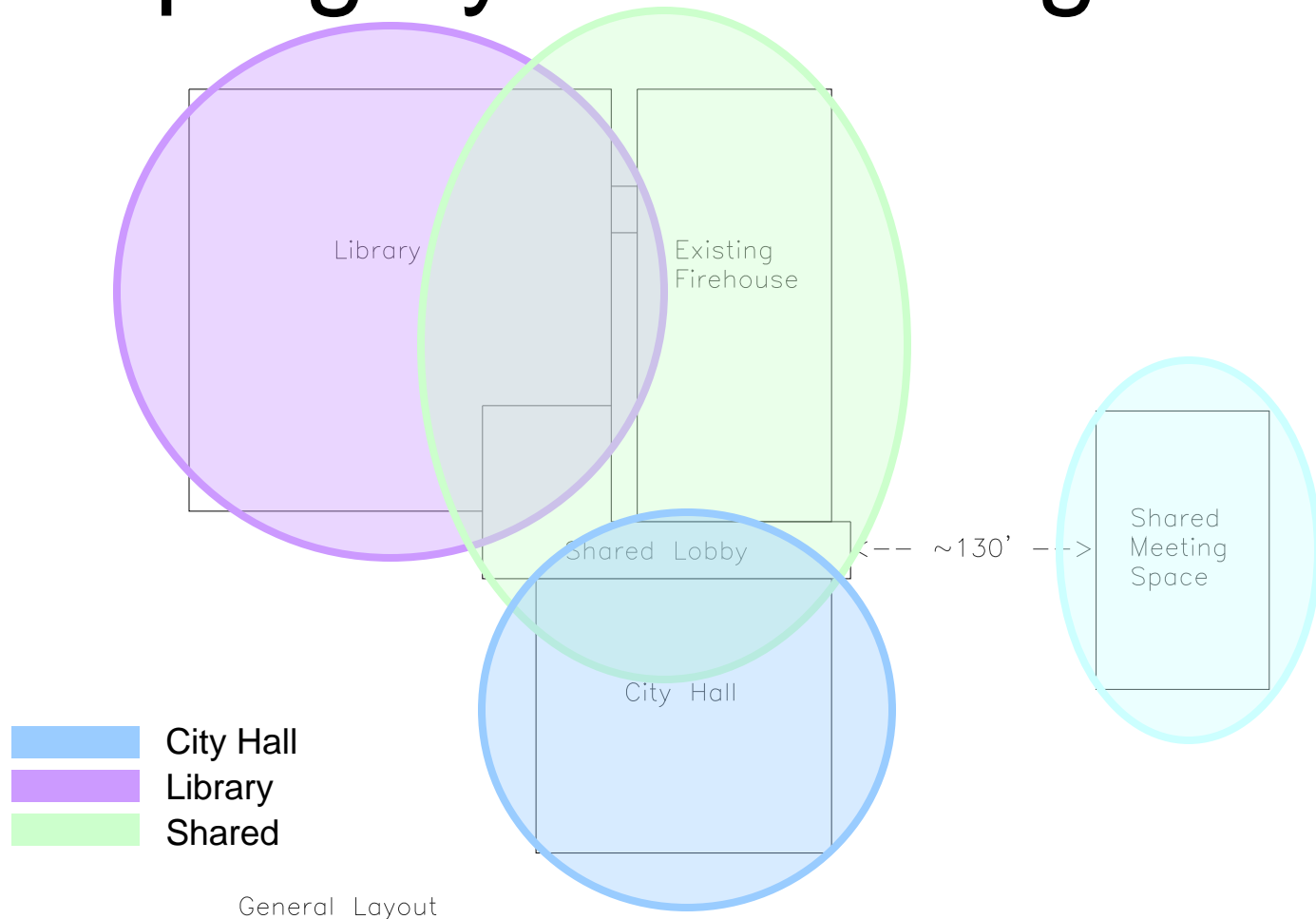


City Hall and Library Use Patterns



By combining the programs of the City Hall and the Library, the new building is occupied more hours of the day and more days of the week. The shared spaces are now taking advantage of the swing shift use pattern created by merging these two facilities.

Grouping by Scheduling Needs



The shared functions are centralized as they can be used at all times. The Library and City Hall functions are separated into individual wings so they can be closed off when they are not in use.



City Hall Space Needs for 2015

| | No. of Rooms | Room Type | Room Dimensions | Typical Area | Total Area |
|-------------------------|--------------|-----------|-----------------|--------------|------------|
| City Hall Offices | | | | | |
| Commissions | 5 | Office | 20 x 10 | 200 | 1000 |
| City Manager | 1 | Office | 20 x 15 | 300 | 300 |
| Mayor | 1 | Office | 20 x 15 | 300 | 300 |
| Mayor Assistants | 1 | Office | 15 x 10 | 150 | 150 |
| City Recorder | 5 | Office | 20 x 10 | 200 | 1000 |
| Human Resource | 4 | Office | 10 x 10 | 100 | 400 |
| Utility Billing | 8 | Office | 10 x 10 | 100 | 800 |
| Accounts Payable | 2 | Office | 10 x 10 | 100 | 200 |
| Accounts Receivable | 6 | Office | 10 x 10 | 100 | 600 |
| Chief Financial Officer | 1 | Office | 10 x 10 | 100 | 200 |
| Community Development | 2 | Office | 10 x 10 | 100 | 200 |
| Planning Department | 16 | Office | 12 x 10 | 120 | 1920 |
| Plan Reviewer | 2 | Office | 12 x 10 | 120 | 240 |
| Code Enforcement | 8 | Office | 12 x 10 | 120 | 960 |
| Building Department | 12 | Office | 12 x 10 | 120 | 1440 |
| City Inspector | 2 | Office | 12 x 10 | 120 | 240 |
| Building Inspectors | 4 | Office | 12 x 10 | 120 | 480 |
| Engineering Technician | 2 | Office | 12 x 10 | 120 | 240 |
| Engineering Manager | 1 | Office | 12 x 10 | 120 | 120 |
| Project Engineer | 4 | Office | 12 x 10 | 120 | 480 |
| City Engineers | 2 | Office | 12 x 10 | 120 | 240 |
| City Engineer Assistant | 2 | Office | 10 x 10 | 100 | 200 |
| Engineering Interns | 4 | Office | 10 x 10 | 100 | 400 |
| Parks Department | 6 | Office | 10 x 10 | 100 | 600 |
| GIS Managers | 1 | Office | 12 x 10 | 120 | 120 |
| GIS Specialist | 2 | Office | 10 x 10 | 100 | 200 |
| Engineering Technicians | 2 | Office | 10 x 10 | 100 | 200 |
| IT Office | 2 | Office | 12 x 10 | 120 | 240 |
| Circulation at 20% | | | | | 2694 |
| Total | | | | | 16164 |



Library Space Needs for 2015

| | | | | | |
|---------------------------------|---|--------|---------|-----|-----|
| Library Offices | | | | | |
| Director | 1 | Office | 20 x 15 | 300 | 300 |
| Library Services Supervisor | 2 | Office | 15 x 10 | 150 | 300 |
| Technology Librarian | 1 | Office | 20 x 10 | 200 | 200 |
| Account Clerk | 1 | Office | 12 x 8 | 96 | 96 |
| Custodian | 1 | Office | 10 x 8 | 80 | 80 |
| Children's Librarian | 1 | Office | 12 x 8 | 96 | 96 |
| Young Adult/Outreach Librarian | 1 | Office | 10 x 8 | 80 | 80 |
| Reference Librarian | 2 | Office | 12 x 8 | 96 | 192 |
| Tech Services Coordinator | 1 | Office | 12 x 8 | 96 | 96 |
| Librarians (part-time) | 1 | Office | 8 x 8 | 64 | 64 |
| Library Assistant (ILL & Ref) | 1 | Office | 12 x 8 | 96 | 96 |
| Library Assistant (T.S. & Circ) | 2 | Office | 12 x 8 | 96 | 192 |
| Library Assistant (Circulation) | 4 | Office | 6 x 6 | 36 | 144 |
| Student Aides (shelving) | 4 | Office | 6 x 4 | 24 | 96 |
| Volunteer | 8 | Office | 6 x 4 | 24 | 192 |

| | | | | | |
|-------------------|---|---------|------------|------|------|
| Library Spaces | | | | | |
| Collections Adult | 1 | Stacks | 100 x 74 | 7400 | 7400 |
| Adult Seating | 1 | Seating | 100 x 25.7 | 2570 | 2570 |
| Collections Youth | 1 | Stacks | 75 x 34 | 2550 | 2550 |
| Youth Seating | 1 | Seating | 32 x 25 | 800 | 800 |
| Other Periodicals | 1 | Stacks | 75 x 38 | 2810 | 2810 |
| Quiet Room | 1 | Seating | 50 x 10 | 500 | 500 |
| Computer Lab | 1 | Support | 20 x 20 | 400 | 400 |
| Support areas | 1 | Support | 75 x 58 | 4300 | 4300 |

| | | | | | |
|--------------------|--|--|--|--|-------|
| Circulation at 20% | | | | | 4711 |
| Total | | | | | 28265 |

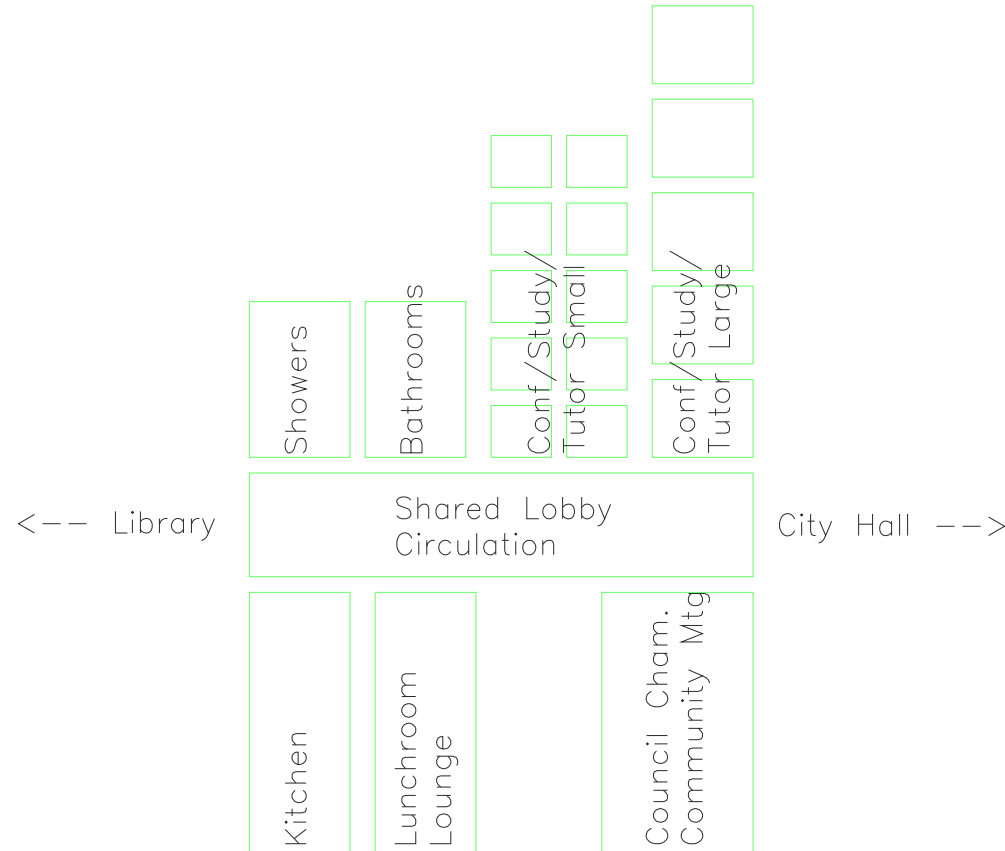


Shared Space Needs for 2015

| | No. of Rooms | Room Type | Room Dimensions | Typical Area | Total Area |
|---|--------------|-----------|-----------------|--------------|------------|
| Shared Spaces | | | | | |
| Conference / Group Study / Tutoring Large | 5 | Group | 20 x 15 | 300 | 1500 |
| Conference / Group Study / Tutoring Small | 10 | Group | 12 x 10 | 120 | 1200 |
| Council Chambers / Community Meetings | 1 | Group | 50 x 30 | 1500 | 1500 |
| Kitchen / Lunchroom / Lounge | 1 | Support | 50 x 40 | 2000 | 2000 |
| Copy room | 1 | Support | 20 x 15 | 300 | 300 |
| Locker Rooms w/ Showers | 2 | Support | 20 x 15 | 300 | 600 |
| Bathrooms | 2 | Support | 20 x 15 | 300 | 600 |
| Combined Lobby | 1 | Support | 100 x 20 | 100 x 20 | 2000 |
| Circulation at 20% | | | | | 1940 |
| Total | | | | | 11640 |
| Total Library, City Hall, and Shared | | | | | 56068 |



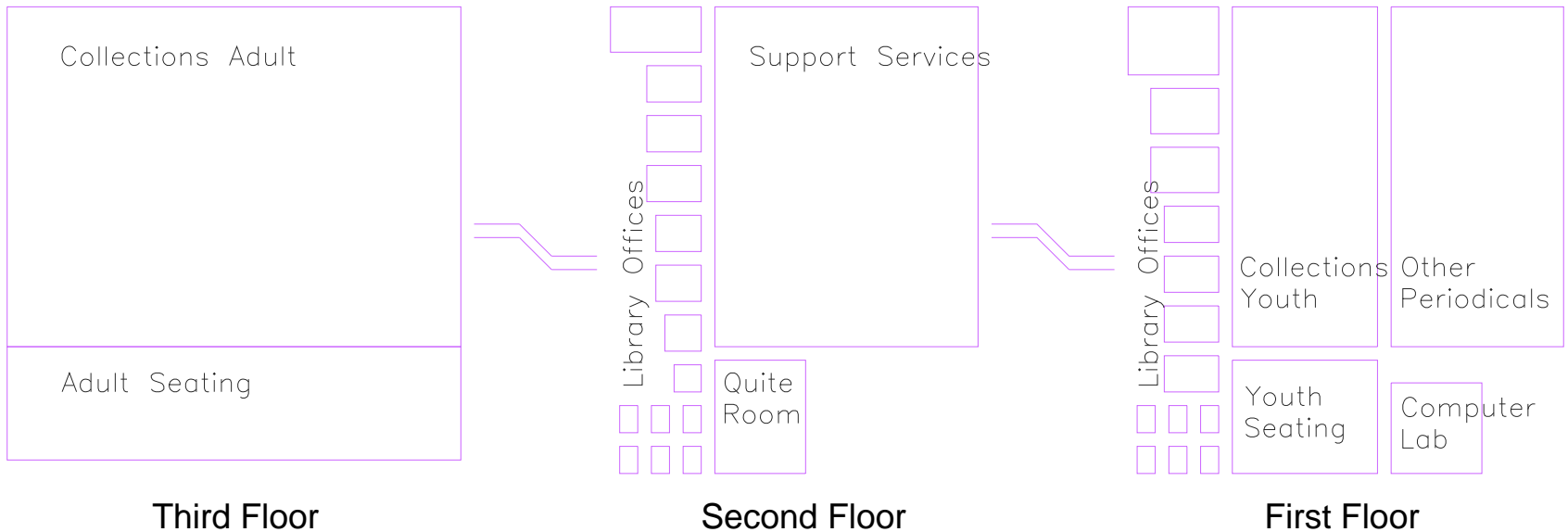
Shared Space Representation



The Lobby is at the center of the facility. The shared functions are grouped together around the lobby on the first and second floors. The main circulation paths extend from the lobby and provide access to all shared functions.



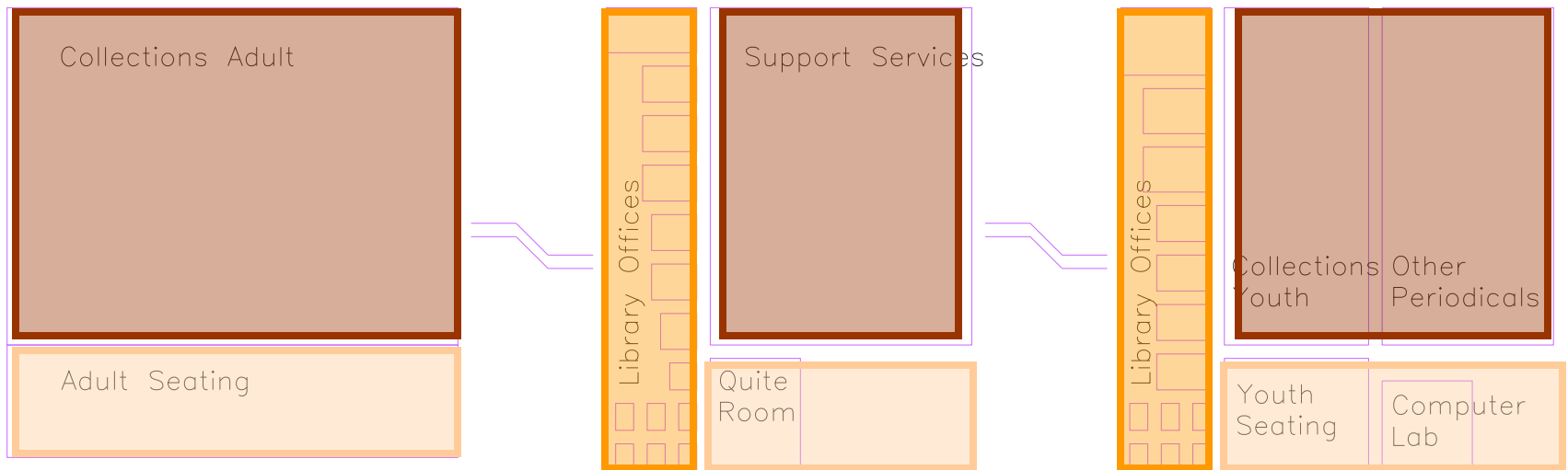
Library Space Requirements






The new Library wing is placed in the 100' x 100' block to the NW of the existing Firehouse. The SW wall will be mostly glass to take advantage of the low sun in the winter for heating the building. There will be shading devices to block the high sun in the summer. The 25' zone along this wall will have bare concrete floors for thermal mass. All open seating and reading zones are along this wall.



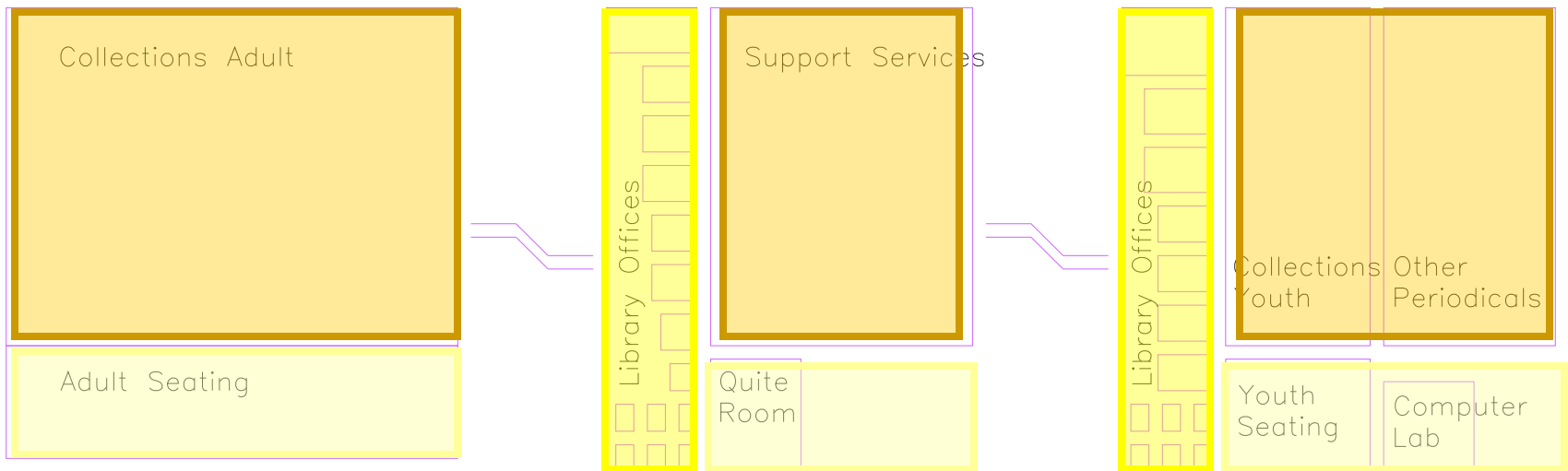
Library Scaled Program Diagram

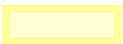




-  Open Seating and Reading Zones
-  Individual Offices and Workstations
-  Stacks and Support Services



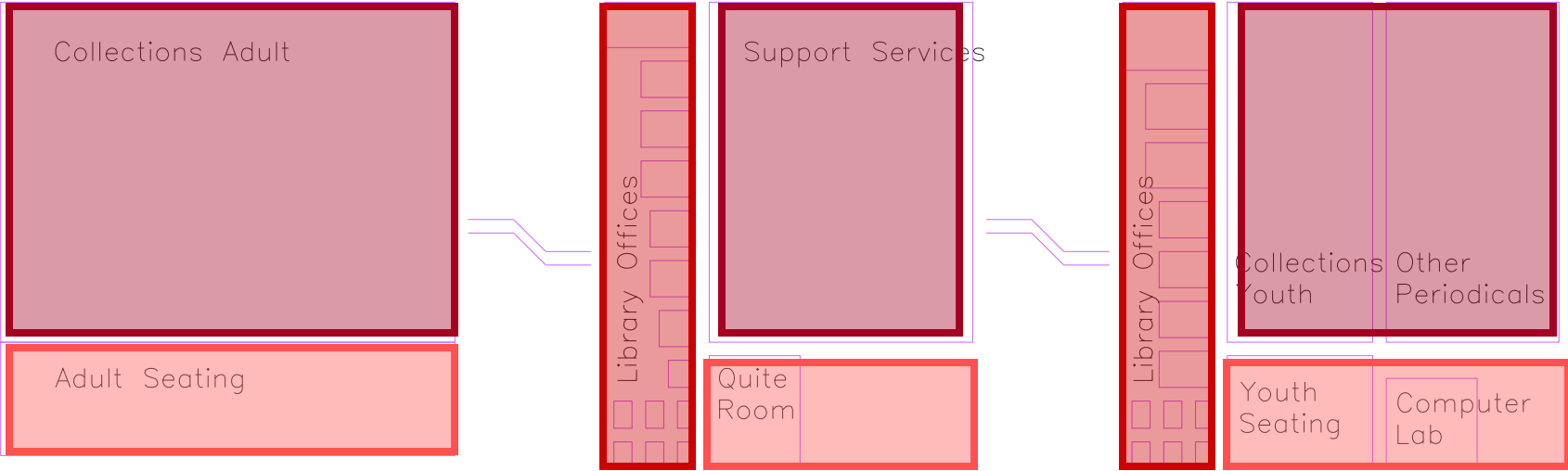
Library Lighting






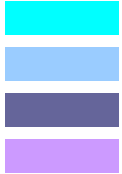
-  Day lighting with sensors for make-up lighting
-  High Task Lighting
-  Low Ambient Lighting arranged in line with stacks or as appropriate to support services



Library Temperature Range



-  Solar Heating with make-up conditioning to maintain small range
-  Small Range 66F – 70F
-  Medium Range 62F – 72F



Library Room Sheet Details

| Space Name | Computer Lab | Youth Seating | Quiet Room | Adult Seating | Offices | Stacks | Support |
|--------------------------|--------------------------------|--|--------------------------------|--------------------------------|-------------------------------|--------------------------------|----------------------------------|
| Space Use | Sedentary Research | Seating and Play area | Sedentary Reading | Sedentary Reading | Sedentary Computer and Filing | Research / Active | Active |
| SF | 400 | 800 | 500 | 2570 | 2224 | 12760 | 4300 |
| Program Notes | Extra electricity and cooling | Small chairs and tables for activities | Acoustically separate area | Chairs, tables, couches | Desks, chairs, file cabinets | Walking / standing; footstools | Multiple tasks; ex: log in books |
| Illuminance (lux) | 500 (augmented w/ daylighting) | 500 (augmented w/ daylighting) | 500 (augmented w/ daylighting) | 500 (augmented w/ daylighting) | 500 | 300 | 300 |
| Equipment | Computers | | | | Computers, telephones | | |
| Occupancy | 15 sf / person 26 total | 15 sf / person 53 total | 15 sf / person 171 total | 15 sf / person 33 total | 1 person/office 31 total | 100sf / person 127 total | 100sf / person 43 total |
| Temperature Range | 66F - 70F | 66F - 70F | 66F - 70F | 66F - 70F | 66F - 70F | 62F - 72F | 62F - 72F |

2006 IBC Table 1004.1.1

Maximum floor area allowances per occupant

| Functional of Space | Floor Area in sf / occupant |
|--|-----------------------------|
| Assembly w/out fixed seats (tables and chairs) | 15 net |
| Business Areas | 100 gross |



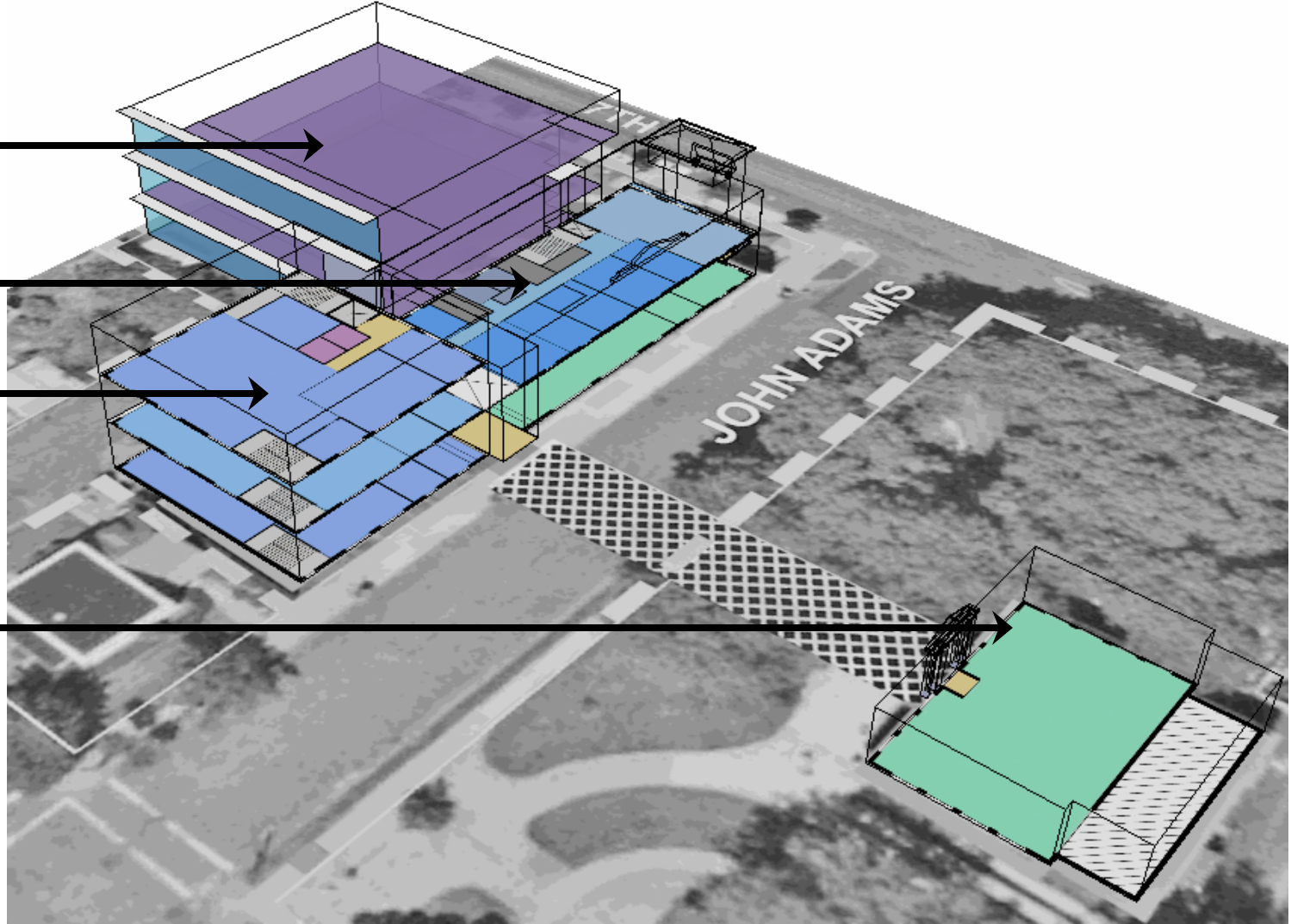
Architectural Ideas

New Library
Addition

Existing
Firehouse

New City Hall
Addition

Existing
Carnegie
Library



References

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