Energy Program: Support Services / Transitional Family Housing

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Energy Program / Jason Johnson

Permanence Fosters Change. Transience Informs Architecture.

Homelessness has been an ever present component of America culture, beginning as early as the late 18th century, (Kusmer 3). But it has only been since the latter half of the 20th century that homelessness has reached epidemic proportions (Burt). Homelessness affects individuals and families far more often today than ever before. Fortunately, awareness of the issue is beginning to keep pace, but the misperceptions of the homeless culture often remain. The dividing line in our society between those who have and those who do not rests squarely on the crux of permanence. The stability and security of the home that most Americans take for granted is the foundation that allows for healthy social development (Tsemberis). Creating a sense of permanence in the transient culture is key to both arresting the growth of homelessness and to beginning the proper dialogue which arises once this foundation is in place. The site of this project lends itself to this rift in our society between permanence and transience. Both culture and subculture intersect where the self indulgent consumerism of the Gateway Mall overlaps its homeless counterpart of the Salt Lake Community Shelter across the street. It seems an ideal location that a social nucleus for the homeless culture manifests itself here providing permanent and socially supported transitional housing for the transient community.

Energy Program

Given the stigmatized nature of shelters and 'affordable housing' solutions such as transitional housing, the issue of energy conservation in such a project can play a primary role in soothing neighborhood opposition by serving as an environmentally invisible social service. Conversely, the energy neutral nature of this building could set a national standard for subsequent developments elsewhere in the United States,

heightening environmental awareness and creating a very visible presence for itself in the community. And the possibility of replenishing the city grid via on site energy generation could ease economic tensions often attributed to the aspect of socially funded housing solution.

Energy conservation strategies within my project should include orientation of living units to maximize southern exposure, locating private living spaces adjacent to public communal spaces, orienting administrative and assistance offices toward the north for maximum natural daylighting and the creation of a central open air courtyard for both daylighting and natural stack ventilation.

Scheduling strategies can be very useful in conservation of building energy consumption as well. Due to the nature of counseling and case management support offices and their independent schedules, these spaces will often not be essential to building operations. Grouping the building program to isolate such offices and services can ease the energy load of the rest of the building. Zoning spaces for opportunities of all hour access, such as computer facilities, community lounge and kitchen can also help decrease thermal energy consumption. Lighting energy loads can be mitigated by the scheduling needs of the client offices and counseling and case management services and efforts to limit the necessity for high ambient electrical lighting throughout.

Other strategies could include rainwater harvesting via permeable rooftop gardens, site xeriscaping of indigenous and drought-resistant vegetation, bio reactor with grey water reclamation, use of reclaimed structural timbers and use of solar pv film on building glazing.

Resources

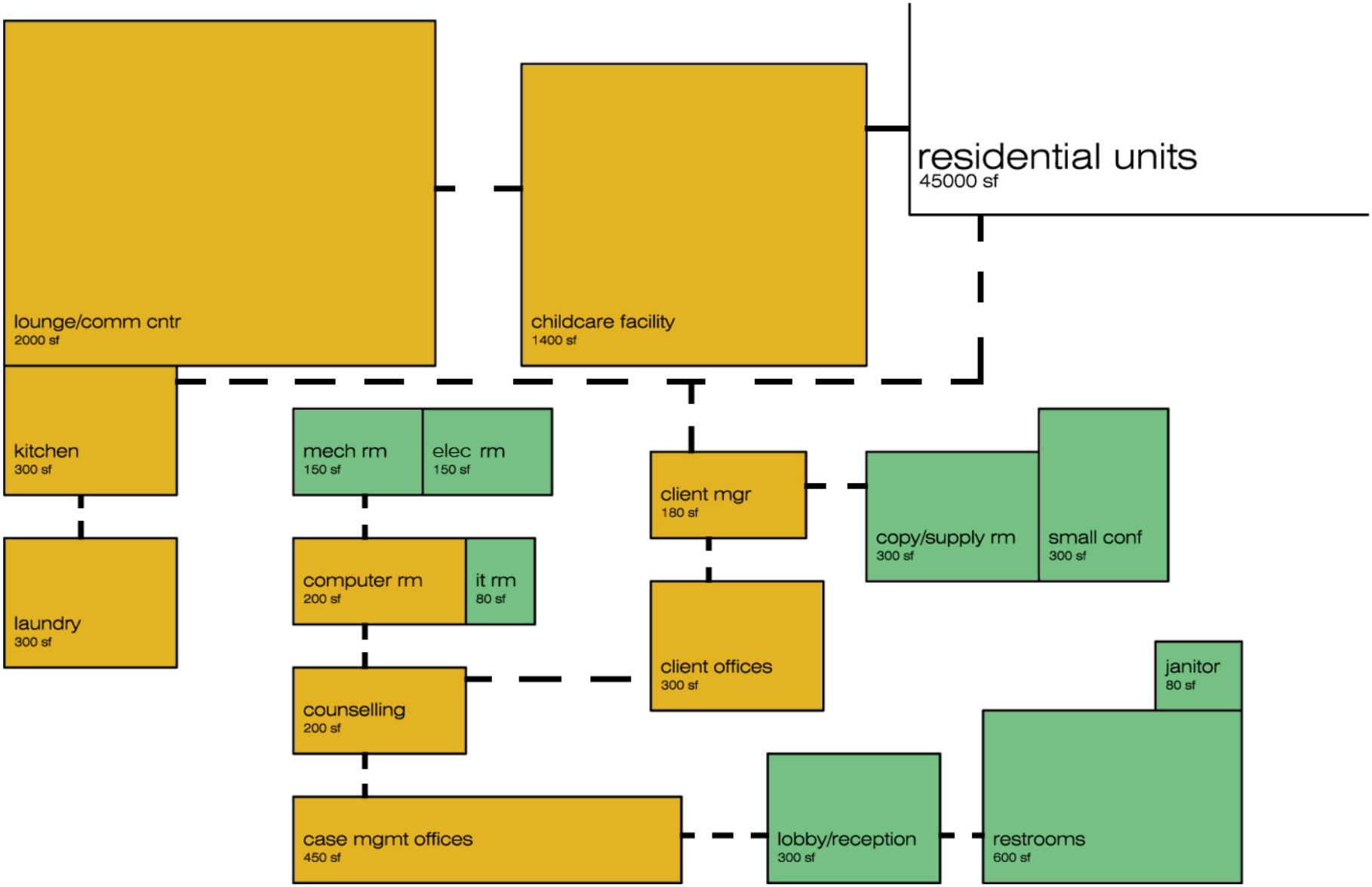
Burt, Martha. Helping America's Homeless: Emergency Shelter or Affordable Housing? Washington, D.C.: Urban Institute Press, 2001.

Kusmer, Kenneth L. Down and Out, on the Road. New York: Oxford University Press, 2002.

Tsemberis, Sam, Ph.D, and Ronda R. Eisenberg, M.A. "Pathways to Housing: Supported Housing for Street-Dwelling Homeless Individuals with Psychiatric Disabilities." Psychiatric Services, Apr. 2000: Vol. 51, No. 4.

Space	Activities	Occupants	Area	Height	Lighting	Schedule	Thermal
Childcare Facility	Daycare	Resident children	1400 sf	10' - 12'	High Ambient	8am - 9pm	Highly Controlled
Lounge/Comm Cntr	Community space for residents to relax / convene	Residents	2000 sf	12'	Daylit/Low Ambient	all hours	Moderately Controlled
Community Laundry	Laundry	Residents	300 sf	9'	High Ambient	8am - 9pm	Moderately Controlled
Community Kitchen	Food storage/prep	Residents	300 sf	9'	High Ambient	all hours	Moderately Controlled
Case Mgmt Offices	Private individual social work	Social Workers	450 sf	9'	Low Ambient/High Task	10am - 5pm	Highly Controlled
Computer Rm	Web access	Residents	200 sf	9'	Low Ambient/High Task	all hours	Highly Controlled
Counseling	Private individual social work	Social Workers	200 sf	9'	Low Ambient/High Task	10am - 5pm	Highly Controlled
Client Mgr	Administrative duties	Director	180 sf	9'	Low Ambient/High Task	9am - 5pm	Highly Controlled
Client Offices	Administrative duties	Admin Assistants	450 sf	9'	Low Ambient/High Task	9am - 5pm	Highly Controlled
Lobby/Reception	Information/Servicing public/residents	Public/Residents	300 sf	12' - 15'	Daylit/High Ambient	9am - 5pm	Moderately Controlled
Copy/Supply Rm	Storage/Supply for administration	Administrative	300 sf	9'	High Ambient	9am - 5pm	Moderately Controlled
Small Conf Rm	Meeting room for administration	Administrative	300 sf	10'	High Ambient	9am - 5pm	Moderately Controlled
Restrooms	Public/Administrative w.c.	Admin/Residents	600 sf	9'	Low Ambient	all hours	Moderately Controlled
IT Rm	Digital communication services	service access	80 sf	8'	Low Ambient	as needed	Highly Controlled
Janitorial Rm	Storage/Supply for janitorial services	service access	80 sf	9'	Low Ambient	as needed	Low Control
Mech Rm	House mechanical support services	service access	150 sf	10'	Low Ambient	as needed	Low Control
Elec Rm	House electrical support services	service access	150 sf	8'	Low Ambient	as needed	Low Control

Program Overview: Support Services / Transitional Family Housing



Scaled Program Diagram: Support Services / Transitional Family Housing

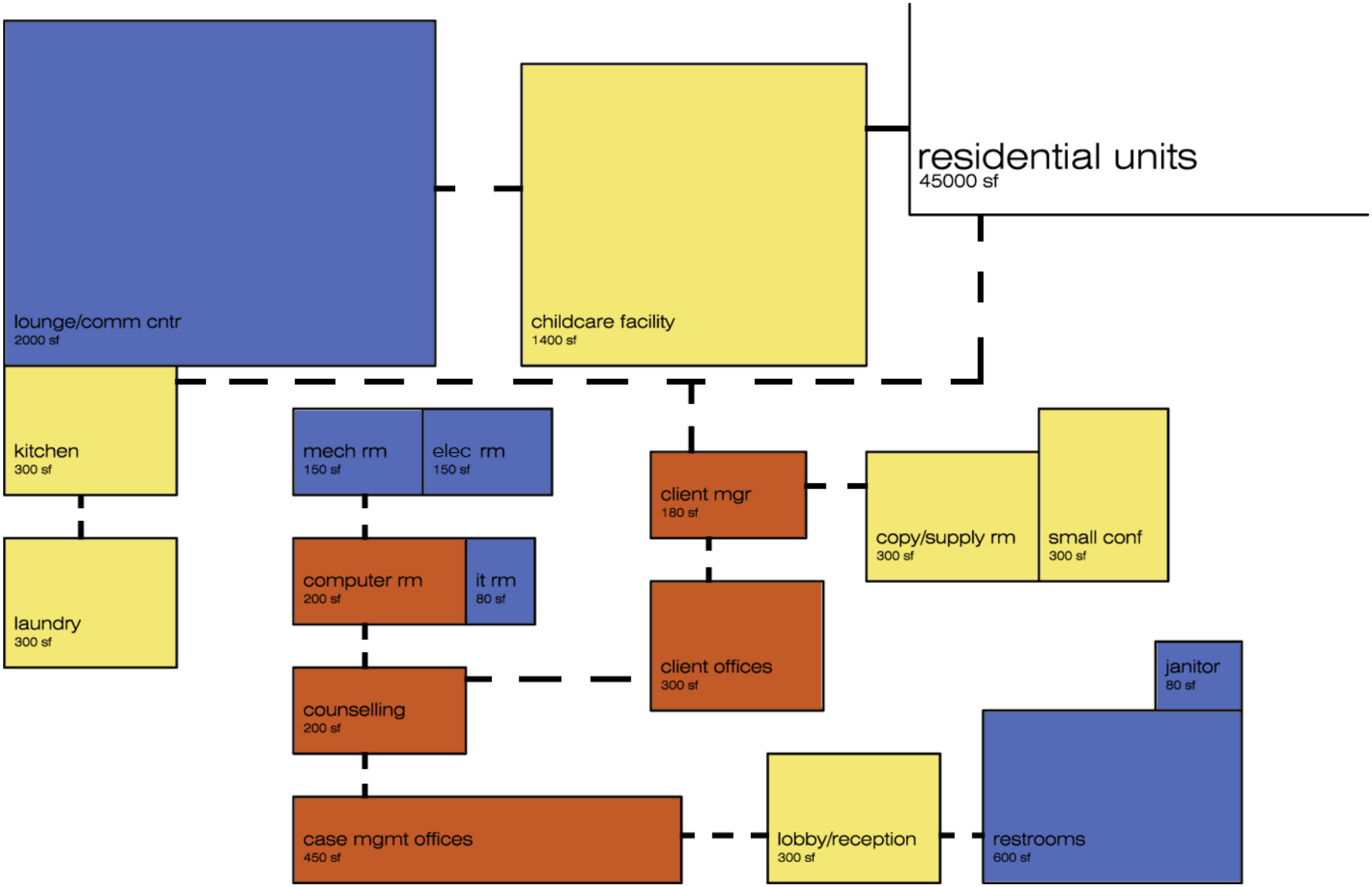
Direct Adjacency

Hard Connection

Soft Connection

Transitional Housing Services Program

Support Services



Lighting Requirements: Support Services / Transitional Family Housing

Direct Adjacency

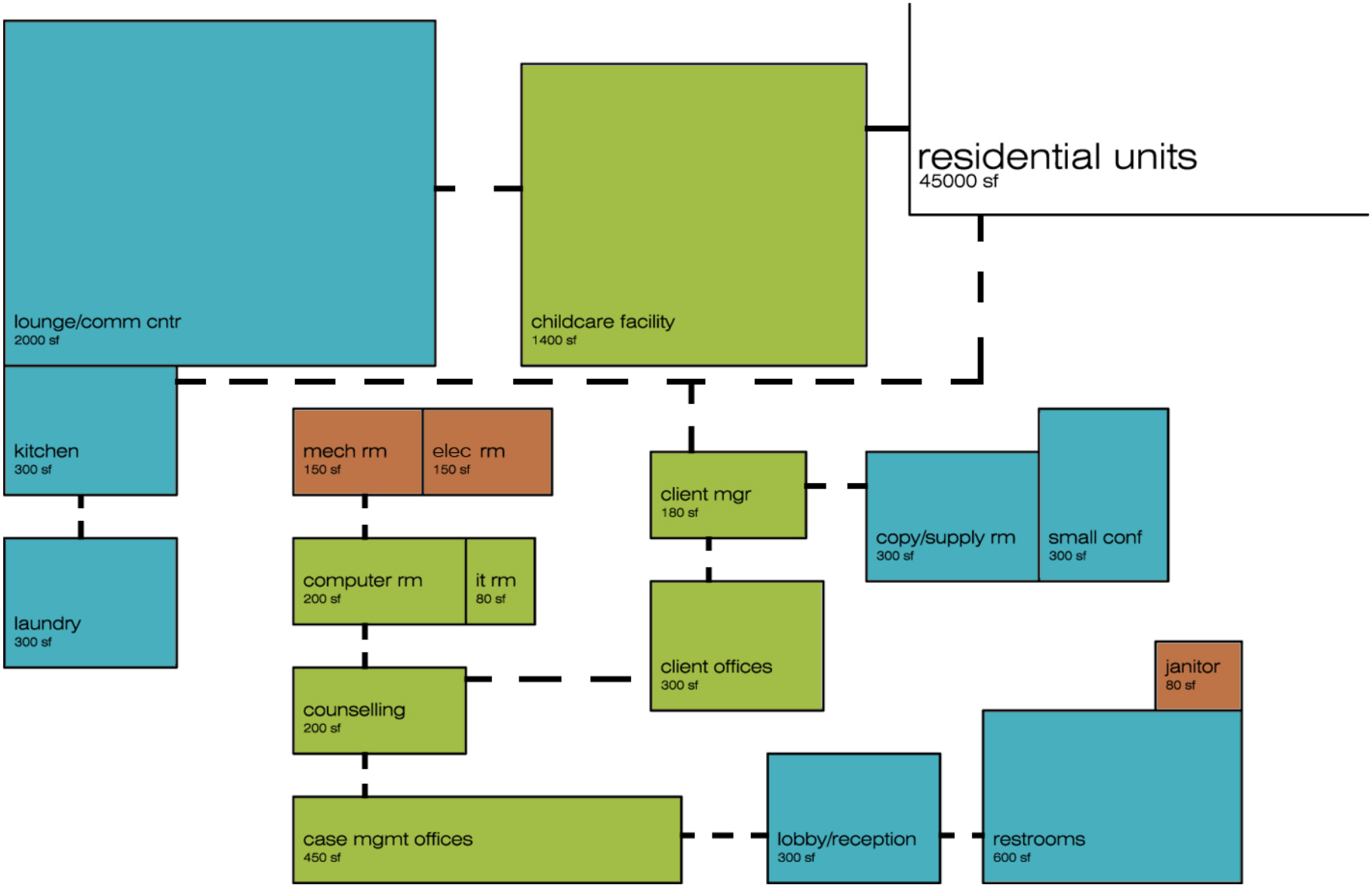
Hard Connection

Soft Connection

Low Ambient

High Ambient

Low Ambient/High Task



Thermal Requirements: Support Services / Transitional Family Housing

Direct Adjacency

Hard Connection

Soft Connection

Low Control

Moderate Control

High Control