



**STUDIO
FOUR
DESIGN**

Architecture & Interiors
Planning • Graphics • Consulting

OAK RIDGE SENIOR ENRICHMENT CENTER

PHASE 1:
FEASIBILITY STUDY

[PAST AND FUTURE]

Oak Ridge senior citizens have had a facility dedicated to their needs since 1977. The Center is now temporarily located at 728 Emory Valley Road. Over the years, the City of Oak Ridge has evaluated several options for a new Senior Center. In 2011, Studio Four Design was commissioned to perform a feasibility study, in conjunction with the Elder's Citizen Advisory Board and the City of Oak Ridge, to determine what amenities and functions are needed and what size and cost a new or updated facility would be.

The current facility is open 60 hours per week, offering many opportunities for Seniors to participate. Opportunities for recreation, information, volunteerism, education, health screening, computer use, Senior Nutrition Lunch Program, physical fitness, and transportation assistance are offered. A meeting place for many community senior citizen organizations and an information source on programs/services are available to the Seniors.



EXISTING FACILITY

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+ PAST AND FUTURE

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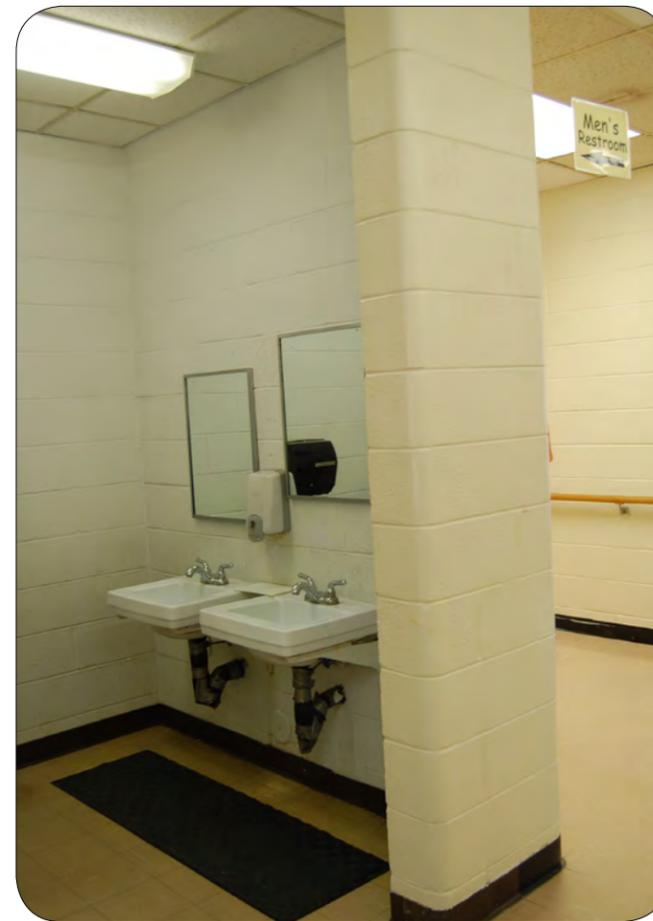
ADJACENCY DIAGRAMS

SINGLE-LINE DIAGRAMS

+ LEED

+ SCHEDULE

+ BUDGET



REST ROOM DEFICIENCY

Lack of Privacy

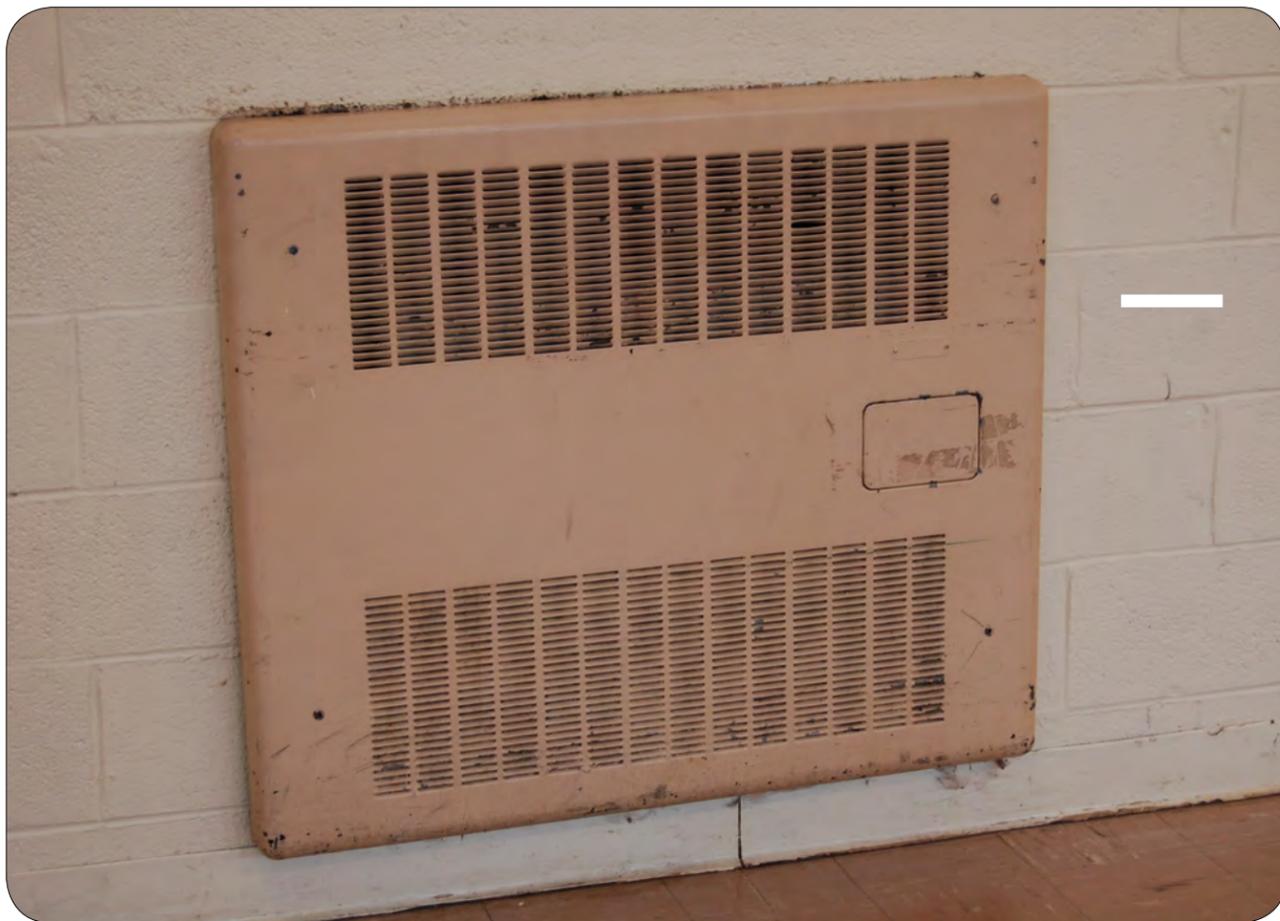
Non-handicap Accessible

Outdated Finishes

Institutional Feel

Inadequate Fixture Count





MECHANICAL DEFICIENCY

Existing units are inefficient and inadequate for the spaces

Outdated equipment

Retrofitted equipment and units are unappealing aesthetically from the Interior and Exterior views

Units do not provide adequate heating and cooling for the Seniors

Existing equipment does not allow for controllability and flexibility within a space

HVAC is not designed for flexible, multipurpose spaces



At the beginning of the exercise, Studio Four Design toured the existing Senior Center to understand the current uses and functions that take place and to take note of any observable deficiencies to the facility. A comprehensive analysis of this facility was not part of the scope of work.

After cursory review of the building there are a significant number of facility and program concerns that are present; including but not limited to: lack of flexible or multi-purpose space, visibility/security limitations, outdated technology, outdated finishes, handicap accessibility, aging and antiquated mechanical and electrical systems and energy efficiency.

Various existing constraints and deficiencies were identified by the Design Team and Senior Center Staff during the tour, and have been noted within this feasibility study for further consideration.

[EXISTING CONDITIONS]





SPATIAL CONSTRAINTS

Lack of Dedicated Space

Limited Flexibility of Space

Outdated

Lack of Social Visibility, due to Existing Construction Constraints

Limited Visibility Impairs Ability to Perceive Arrivals and Departures of Facility, Posing Security Concerns.

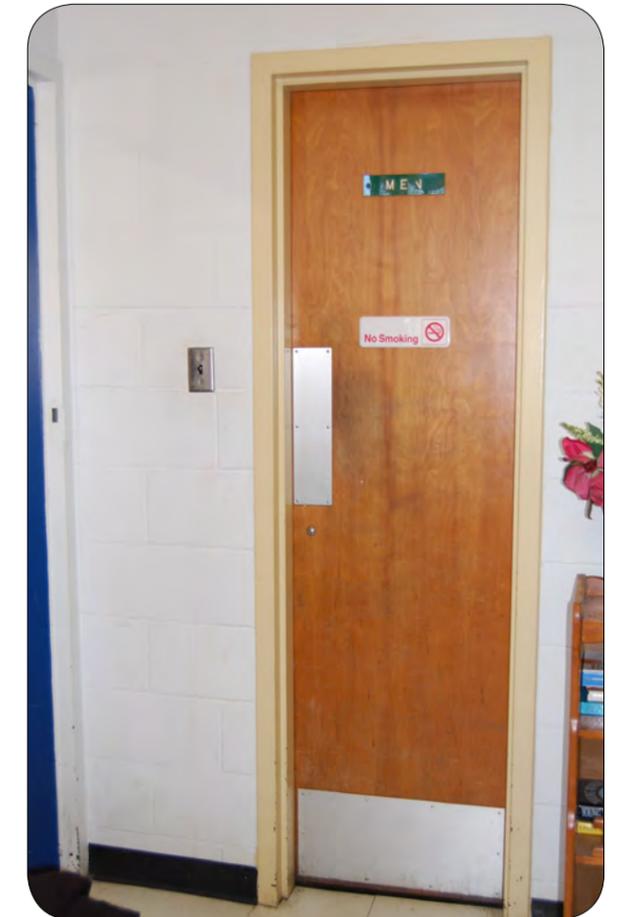


[EXISTING CONDITIONS]

HANDICAP ACCESSIBILITY

Inaccessible Toilets, including entrances, door approach, clear floor space and toilet layouts.

Automatic Door-Open Control Exceeds Travel Distance Appropriate for Seniors. Several Instances have occurred with doors closing before a Senior reaches the entry way, or closes on a Senior.





NAVIGATION

Long, Un-delineated Hallways

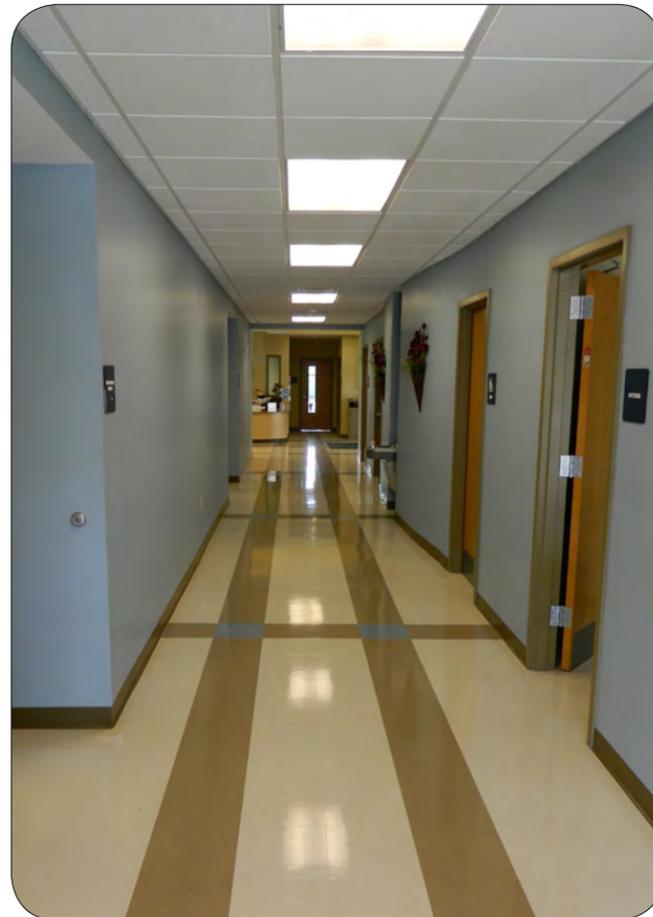
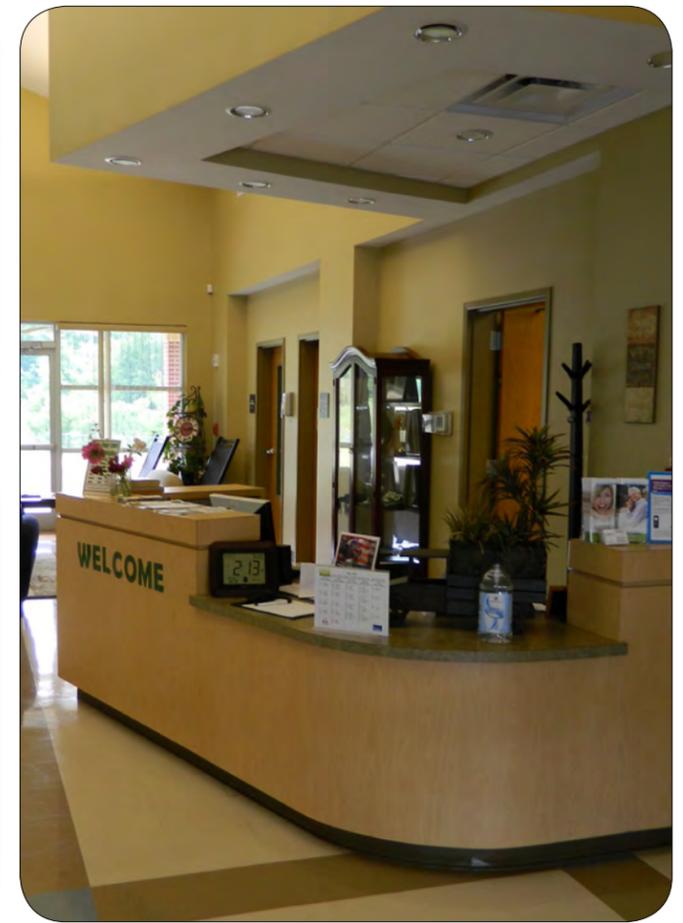
Travel Distance from Gym to Senior Center is Approximately 100+ feet for a Senior to Travel

Travel Distance from Furthest Destination to Main Entry of Building is Approximately 200+ feet for a Senior to Travel.

Lack of Wayfinding System to aid Seniors in Navigating the Building with Ease.



[EXISTING CONDITIONS]

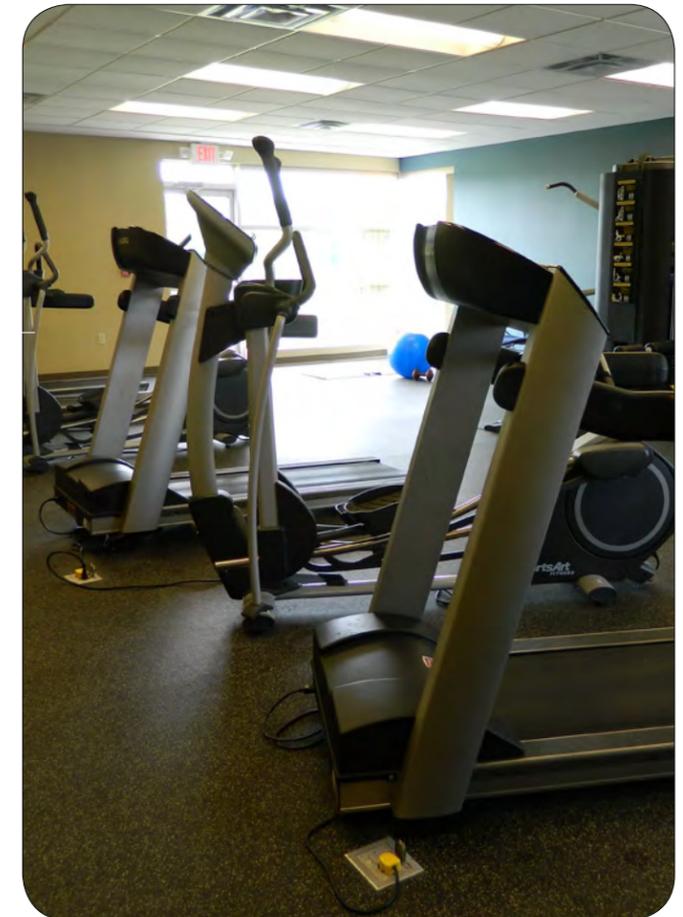


CARTER SENIOR CENTER

Inviting

Fresh Color Palette

Ease of Navigation





JOHN T. O'CONNOR CENTER -

Inviting

Fresh Color Palette

Ease of Navigation

Open & Accessible Spaces

Indoor/Outdoor Visibility & Views



Prior to the start of the feasibility study, the City of Oak Ridge, Elder's Citizen Advisory Board and the Staff of the Oak Ridge Senior Center completed three site visits to local Senior Centers.

The three Centers that were toured included: John T. O'Connor Center, Carter Senior Center and Loudon County Senior Center. Each Center provided the opportunity for the group to access other facilities, and identify criteria and discrepancies within the existing Oak Ridge Senior Center.

[SITE VISITS]



PUBLIC MEETING CALENDAR

September 20, 2011 | 7:00pm
- Public Meeting #1

September 23, 2011 | 9:00am
- Elder Citizen's Advisory Board Meeting
Public Input

November 15, 2011 | 7:00pm
- Public Meeting #2

December 1, 2011
-Public Comment Period Completed



GENERAL

WELLNESS

EDUCATION

RECREATION

SOCIAL

The City of Oak Ridge hosted several public forums for local citizens. Residents were invited to attend, and in turn were asked to provide input on the need for a new Senior Center, and if so, what important issues and areas need to be included in the facility.

The following categories were identified during the first public meeting: General, Education, Recreation, Social and Wellness. These categories have created a baseline for all data collected.

Meeting notes, demographics, surveys and other methods of data collection were completed by Studio Four Design and the City of Oak Ridge.

[PUBLIC MEETINGS]

OAK RIDGE SENIOR ENRICHMENT CENTER

| FLEXIBLE SPACE | |
|---|--------------------|
| Multipurpose (Lg.) | |
| Tai Chi | |
| Meeting Room (50-60) | |
| Dance Room (90) | |
| (1) Bingo/Dining Facilities (100+) | 1,800-2,000 |
| <i>Estimated Square Footage 1,800-2,000</i> | |
| Multipurpose (Med.) | |
| (1) Meeting Room (30-40) | 600-800 |
| Video Rm/Theater | |
| (1) Game Rm. 1 | 400-600 |
| (1) Lifestyle Rm. 1 | 400-600 |
| Cooking Class | |
| <i>Estimated Square Footage 1,400-2000</i> | |
| Multipurpose (Sm.) | |
| (1) Meeting Room (10-20) | 300-500 |
| (1) Game Rm. 2 | 300-500 |
| (1) Lifestyle Rm. 2 | 300-500 |
| Health Clinic | |
| <i>Estimated Square Footage 900-1,500</i> | |
| SUBTOTAL | 4,100-5,500 |

| TOTAL PROGRAM SF | |
|------------------|----------------------|
| Flexible | 4,100-5,500 |
| Dedicated | 4,700-5,500 |
| Support | 3,200-4,000 |
| TOTAL | 12,000-15,000 |

| DEDICATED SPACE: | |
|--------------------|--------------------|
| Billiards | 1,800-2,000 |
| Kitchen | 500 |
| Exercise | 400 |
| Living Rm/Lounge | 400-600 |
| Computer Lab | 200-300 |
| Daycare | 400-500 |
| Office | 150 |
| Offices | 350 |
| Toilets | 400-500 |
| Concession/Vending | 100-200 |
| SUBTOTAL | 4,700-5,500 |

| SUPPORT | |
|--------------------------------|--------------------|
| Circulation (+/- 20%) | 1,600-2,000 |
| Storage (+/- 10%) | 800-1,000 |
| Mechanical/Electrical (+/- 5%) | 400-500 |
| Misc. (+/- 5%) | 400-500 |
| SUBTOTAL | 3,200-4,000 |

| OUTDOOR | |
|-------------------|------------------|
| Recreation/Garden | To be Determined |



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Data gathered in the public meetings was compiled into the designated categories. Functions and spaces were identified within each category.

Subcategories were identified as flexible, multipurpose space including meeting rooms, dance Room, Dining and more; Dedicated, non-flexible space which include Kitchen, Toilets, Concessions, and other dedicated spaces; Support spaces include offices, storage, mechanical; and Outdoor recreation space.

It is estimated that a 12,000-15,000 square foot building will be required to satisfy the program requirements.

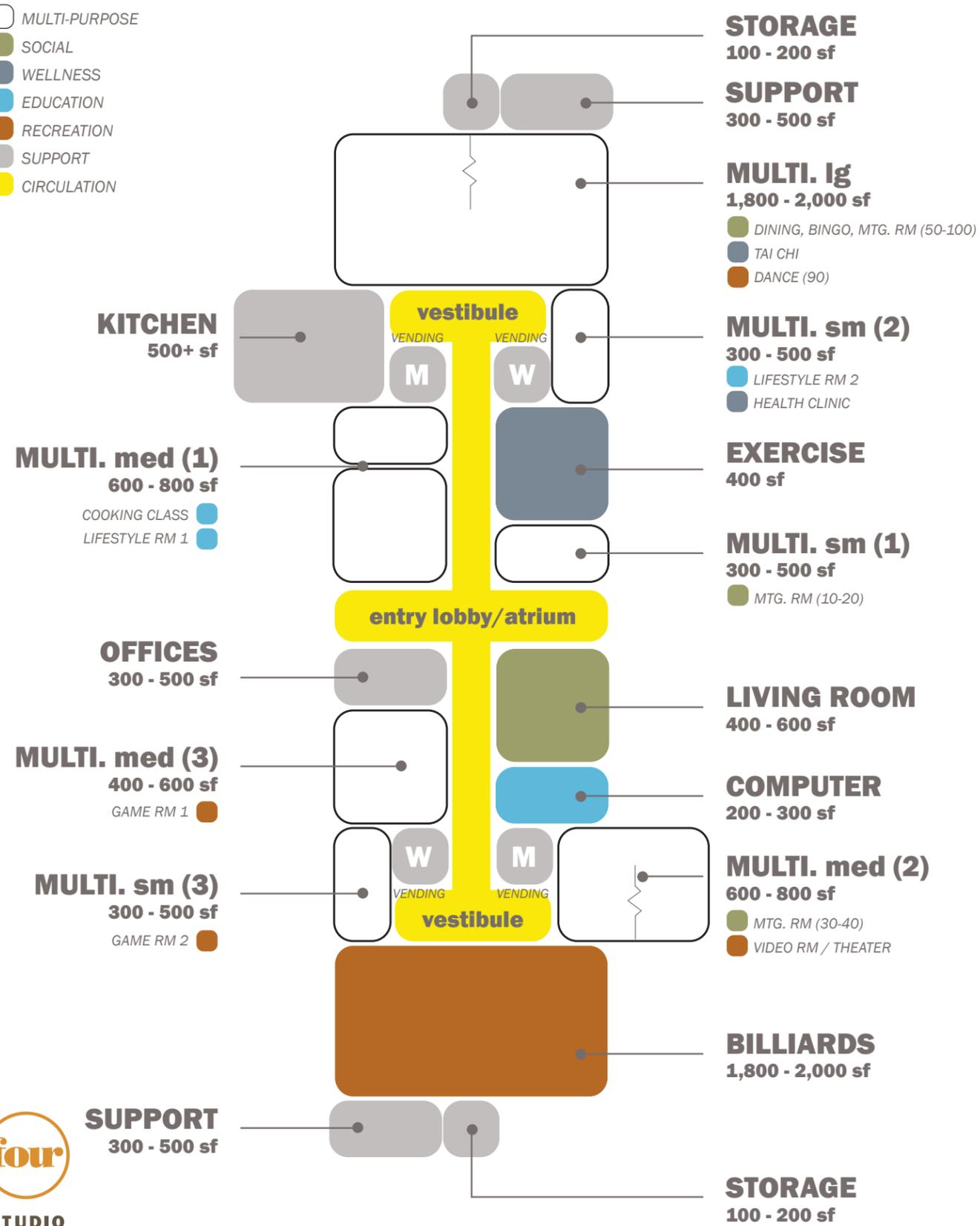
[PROGRAM SUMMARY]

OAK RIDGE SENIOR ENRICHMENT CENTER

Adjacency Diagram - Option A

Legend

- MULTI-PURPOSE
- SOCIAL
- WELLNESS
- EDUCATION
- RECREATION
- SUPPORT
- CIRCULATION



Increased security and visibility throughout space

Central "Entry" increases social interaction

Distinct wings of building provide flexibility for multiple events

After completion of the data analysis and program summary, design diagrams were completed to study the functions of spaces, zones and adjacencies.

Diagrams A and B were presented to the Elder's Citizen Advisory Board and the City of Oak Ridge during a public meeting, for public comments and feedback.

Option C was requested during the public meeting, and was provided as another concept to merge characteristics of Option A and B.

[ADJACENCY DIAGRAMS]



OAK RIDGE SENIOR ENRICHMENT CENTER

Adjacency Diagram - Option B

Legend

- MULTI-PURPOSE
- SOCIAL
- WELLNESS
- EDUCATION
- RECREATION
- SUPPORT
- CIRCULATION

Perimeter Walking / Circulation

Increased Square Footage

Potential for Increased HVAC efficiency

Restricted social interaction between Seniors

KITCHEN
500+ sf

MULTI. sm (2)
300 - 500 sf
MTG. RM (10-20)

MULTI. med (1)
600 - 800 sf
COOKING CLASS
LIFESTYLE RM 1

OFFICES
300 - 500 sf

MULTI. med (3)
400 - 600 sf
GAME RM 1

SUPPORT
300 - 400 sf

BILLIARDS
1,800 - 2,000 sf

SUPPORT
300 - 500 sf

STORAGE
100 - 200 sf

MULTI. lg
1,800 - 2,000 sf

- DINING, BINGO, MTG. RM (50-100)
- TAI CHI
- DANCE (90)

SUPPORT
100 - 200 sf

EXERCISE
400 sf

MULTI. sm (1)
300 - 500 sf
LIFESTYLE RM 2
HEALTH CLINIC

LIVING ROOM
400 - 600 sf

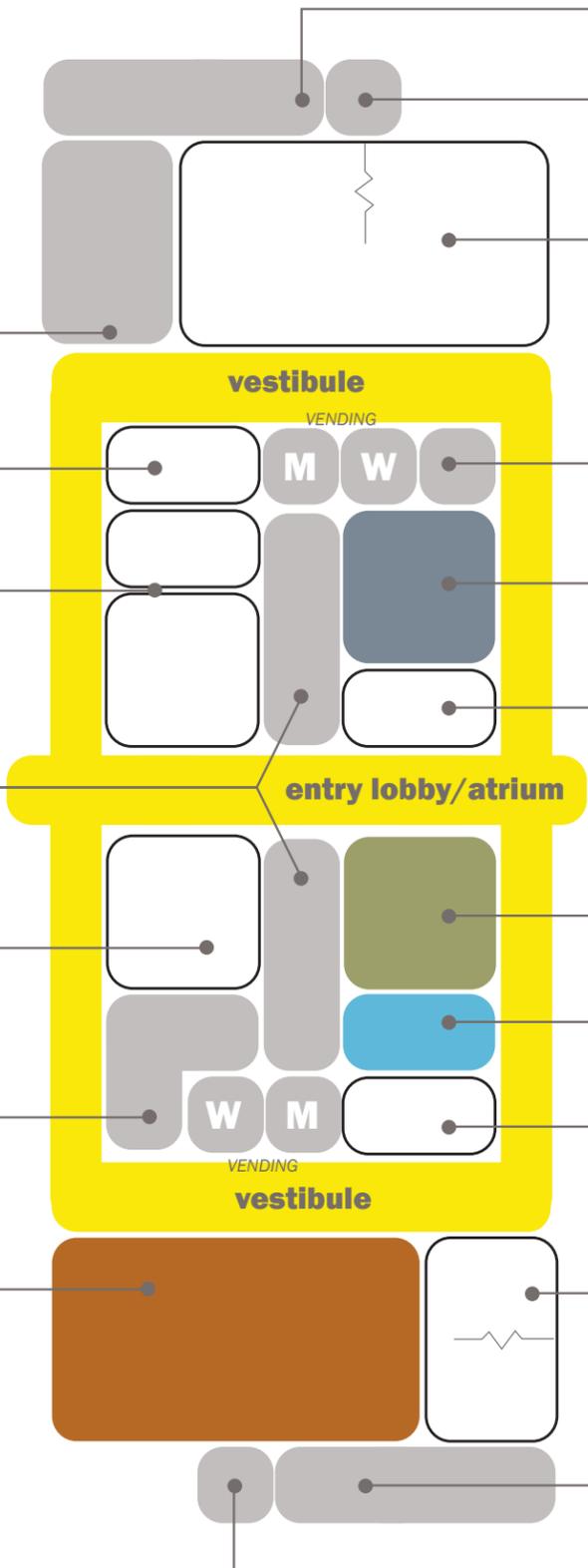
COMPUTER
200 - 300 sf

MULTI. sm (3)
300 - 500 sf
GAME RM 2

MULTI. med (2)
600 - 800 sf
MTG. RM (30-40)
VIDEO RM / THEATER

SUPPORT
300 - 500 sf

STORAGE
100 - 200 sf

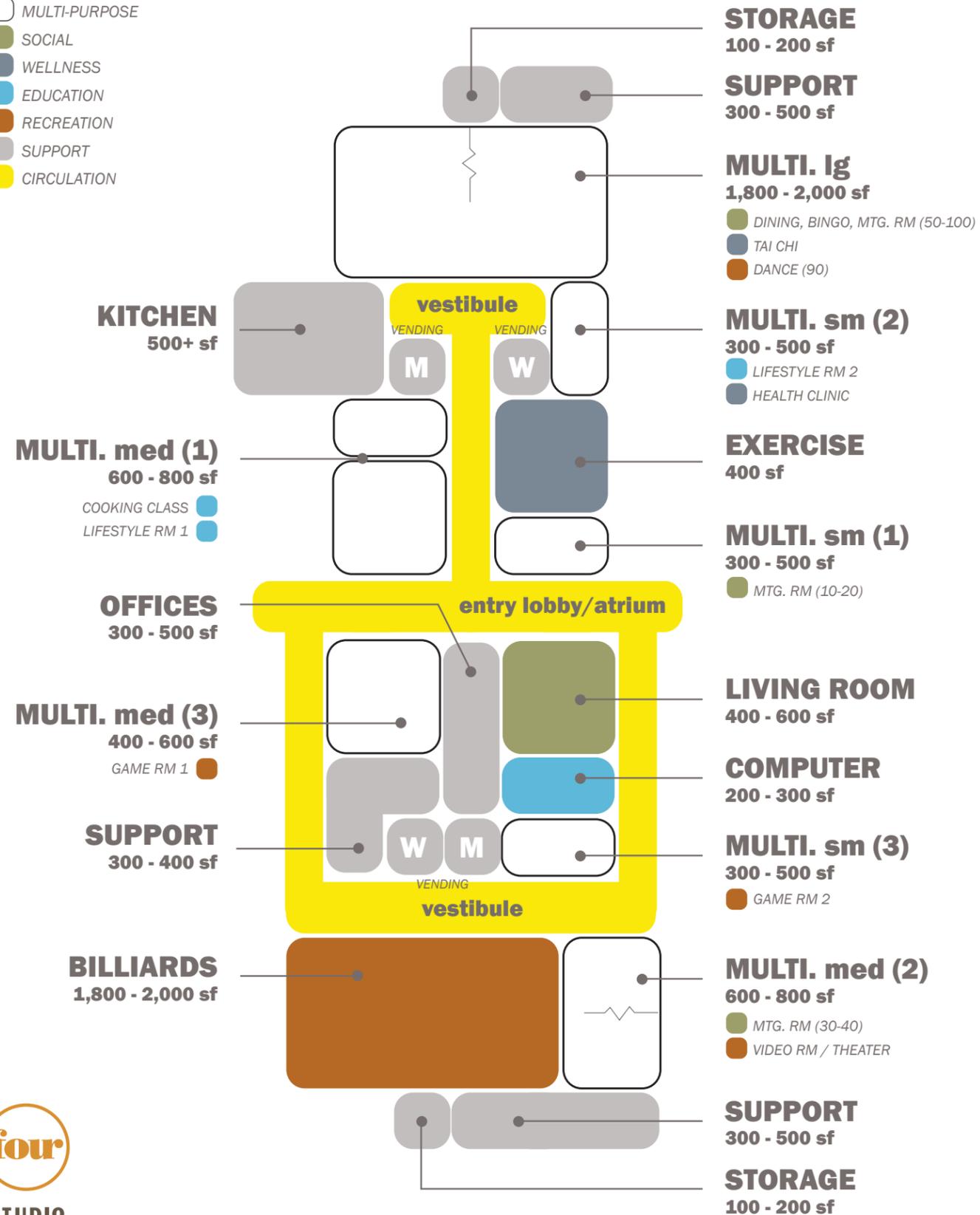


OAK RIDGE SENIOR ENRICHMENT CENTER

Adjacency Diagram - Option C

legend

- MULTI-PURPOSE
- SOCIAL
- WELLNESS
- EDUCATION
- RECREATION
- SUPPORT
- CIRCULATION



Perimeter Walking /
Circulation with central
zone

Potential for Increased
HVAC efficiency

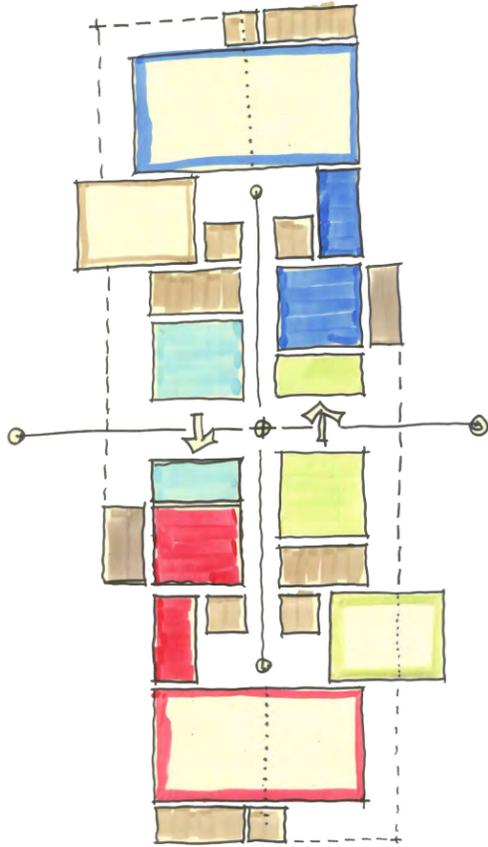
Increased social interac-
tion, yet somewhat re-
stricted in specific zones.

OAK RIDGE SENIOR ENRICHMENT CENTER

Adjacency Diagram - Option A

Legend

- SOCIAL
- WELLNESS
- EDUCATION
- RECREATION
- SUPPORT
- CIRCULATION



PRELIMINARY DIAGRAM - A



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KITCHEN
500+ sf

MULTI. med (1)
600 - 800 sf

- COOKING CLASS
- LIFESTYLE RM 1

OFFICES
300 - 500 sf

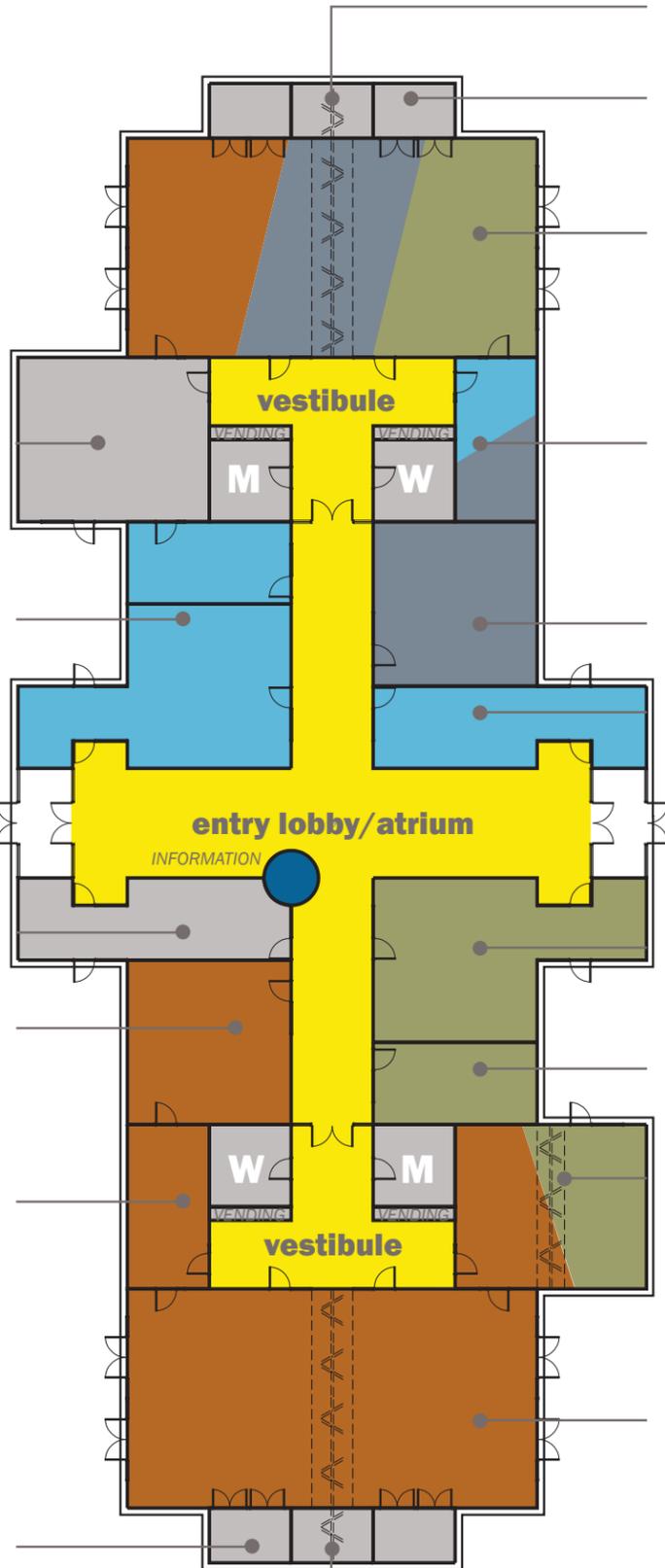
MULTI. med (3)
400 - 600 sf

- GAME RM 1

MULTI. sm (3)
300 - 500 sf

- GAME RM 2

SUPPORT
300 - 500 sf



STORAGE
100 - 200 sf

SUPPORT
300 - 500 sf

MULTI. lg
1,800 - 2,000 sf

- DINING, BINGO, MTG. RM (50-100)
- TAI CHI
- DANCE (90)

MULTI. sm (2)
300 - 500 sf

- LIFESTYLE RM 2
- HEALTH CLINIC

EXERCISE
400 sf

COMPUTER
300 - 500 sf

LIVING ROOM
400 - 600 sf

MULTI. sm (1)
200 - 300 sf

- MTG. RM (10-20)

MULTI. med (2)
600 - 800 sf

- MTG. RM (30-40)
- VIDEO RM / THEATER

BILLIARDS
1,800 - 2,000 sf

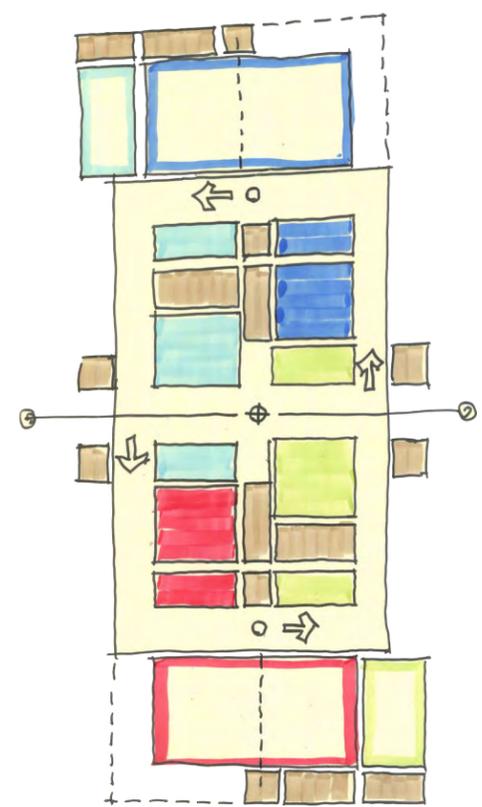
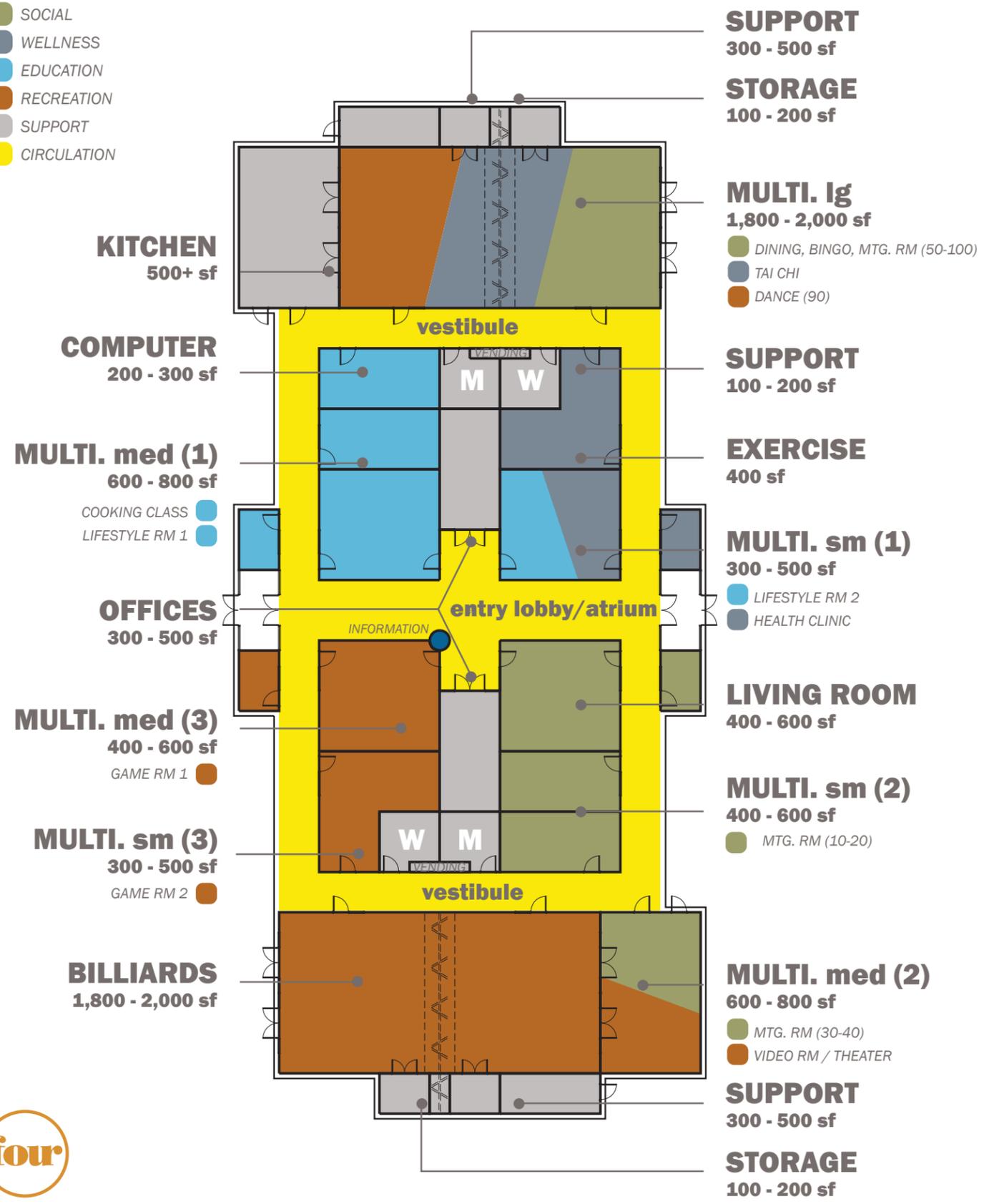
STORAGE
100 - 200 sf

OAK RIDGE SENIOR ENRICHMENT CENTER

Adjacency Diagram - Option B

Legend

- SOCIAL
- WELLNESS
- EDUCATION
- RECREATION
- SUPPORT
- CIRCULATION



With the completion of the Adjacency Diagrams, single-line drawings were produced to demonstrate the relation between spaces and size.

[SINGLE-LINE DIAGRAMS]

Included is a sample "checklist" for a LEED New Construction or Renovation project. This checklist is used as a benchmark to estimate the potential points within each LEED category.



LEED 2009 for New Construction and Major Renovations

Project Checklist

Sustainable Sites Possible Points: 26

| Y | ? | N | | | |
|---|---|---|------------|---|---|
| Y | | | Prereq 1 | Construction Activity Pollution Prevention | |
| | | | Credit 1 | Site Selection | 1 |
| | | | Credit 2 | Development Density and Community Connectivity | 5 |
| | | | Credit 3 | Brownfield Redevelopment | 1 |
| | | | Credit 4.1 | Alternative Transportation—Public Transportation Access | 6 |
| | | | Credit 4.2 | Alternative Transportation—Bicycle Storage and Changing Rooms | 1 |
| | | | Credit 4.3 | Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles | 3 |
| | | | Credit 4.4 | Alternative Transportation—Parking Capacity | 2 |
| | | | Credit 5.1 | Site Development—Protect or Restore Habitat | 1 |
| | | | Credit 5.2 | Site Development—Maximize Open Space | 1 |
| | | | Credit 6.1 | Stormwater Design—Quantity Control | 1 |
| | | | Credit 6.2 | Stormwater Design—Quality Control | 1 |
| | | | Credit 7.1 | Heat Island Effect—Non-roof | 1 |
| | | | Credit 7.2 | Heat Island Effect—Roof | 1 |
| | | | Credit 8 | Light Pollution Reduction | 1 |

Water Efficiency Possible Points: 10

| Y | ? | N | | | |
|---|---|---|----------|------------------------------------|--------|
| Y | | | Prereq 1 | Water Use Reduction—20% Reduction | |
| | | | Credit 1 | Water Efficient Landscaping | 2 to 4 |
| | | | Credit 2 | Innovative Wastewater Technologies | 2 |
| | | | Credit 3 | Water Use Reduction | 2 to 4 |

Energy and Atmosphere Possible Points: 35

| Y | ? | N | | | |
|---|---|---|----------|--|---------|
| Y | | | Prereq 1 | Fundamental Commissioning of Building Energy Systems | |
| Y | | | Prereq 2 | Minimum Energy Performance | |
| Y | | | Prereq 3 | Fundamental Refrigerant Management | |
| | | | Credit 1 | Optimize Energy Performance | 1 to 19 |
| | | | Credit 2 | On-Site Renewable Energy | 1 to 7 |
| | | | Credit 3 | Enhanced Commissioning | 2 |
| | | | Credit 4 | Enhanced Refrigerant Management | 2 |
| | | | Credit 5 | Measurement and Verification | 3 |
| | | | Credit 6 | Green Power | 2 |

Materials and Resources Possible Points: 14

| Y | ? | N | | | |
|---|---|---|------------|---|--------|
| Y | | | Prereq 1 | Storage and Collection of Recyclables | |
| | | | Credit 1.1 | Building Reuse—Maintain Existing Walls, Floors, and Roof | 1 to 3 |
| | | | Credit 1.2 | Building Reuse—Maintain 50% of Interior Non-Structural Elements | 1 |
| | | | Credit 2 | Construction Waste Management | 1 to 2 |
| | | | Credit 3 | Materials Reuse | 1 to 2 |

Project Name

Date

Materials and Resources, Continued

| Y | ? | N | | | |
|--------------------------|--------------------------|--------------------------|----------|-----------------------------|--------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 4 | Recycled Content | 1 to 2 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 5 | Regional Materials | 1 to 2 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 6 | Rapidly Renewable Materials | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 7 | Certified Wood | 1 |

Indoor Environmental Quality Possible Points: 15

| | | | | | |
|-------------------------------------|--------------------------|--------------------------|------------|--|---|
| <input checked="" type="checkbox"/> | | | Prereq 1 | Minimum Indoor Air Quality Performance | |
| <input checked="" type="checkbox"/> | | | Prereq 2 | Environmental Tobacco Smoke (ETS) Control | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 1 | Outdoor Air Delivery Monitoring | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 2 | Increased Ventilation | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 3.1 | Construction IAQ Management Plan—During Construction | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 3.2 | Construction IAQ Management Plan—Before Occupancy | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 4.1 | Low-Emitting Materials—Adhesives and Sealants | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 4.2 | Low-Emitting Materials—Paints and Coatings | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 4.3 | Low-Emitting Materials—Flooring Systems | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 4.4 | Low-Emitting Materials—Composite Wood and Agrifiber Products | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 5 | Indoor Chemical and Pollutant Source Control | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 6.1 | Controllability of Systems—Lighting | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 6.2 | Controllability of Systems—Thermal Comfort | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 7.1 | Thermal Comfort—Design | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 7.2 | Thermal Comfort—Verification | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 8.1 | Daylight and Views—Daylight | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 8.2 | Daylight and Views—Views | 1 |

Innovation and Design Process Possible Points: 6

| | | | | | |
|--------------------------|--------------------------|--------------------------|------------|--------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 1.1 | Innovation in Design: Specific Title | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 1.2 | Innovation in Design: Specific Title | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 1.3 | Innovation in Design: Specific Title | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 1.4 | Innovation in Design: Specific Title | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 1.5 | Innovation in Design: Specific Title | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 2 | LEED Accredited Professional | 1 |

Regional Priority Credits Possible Points: 4

| | | | | | |
|--------------------------|--------------------------|--------------------------|------------|------------------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 1.1 | Regional Priority: Specific Credit | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 1.2 | Regional Priority: Specific Credit | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 1.3 | Regional Priority: Specific Credit | 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Credit 1.4 | Regional Priority: Specific Credit | 1 |

Total Possible Points: 110

Certified 40 to 49 points Silver 50 to 59 points Gold 60 to 79 points Platinum 80 to 110

LEED stands for Leadership in Energy and Environmental Design. It is the leading system for certifying the highest performing sustainable buildings in the world. Developed and maintained by the U.S. Green Building Council, the LEED rating system addresses the building throughout its entire life cycle, and integrates all aspects of design from site selection, through construction, occupancy and building operations.

The benefits of choosing to have buildings become LEED certified are endless. LEED buildings help reduce operating and maintenance costs, because building “green” is cost effective. While building “green” may cost more upfront, the long term economic benefits will outweigh the initial investment.



Project Schedule Oak Ridge Senior Enrichment Center

| ID | Task Name | Start | Finish | 2nd Quarter | | | 3rd Quarter | | | 4th Quarter | | | 1st Quarter | | | 2nd Quarter | | | 3rd Quarter | | | 4th Quarter | | | | | | |
|----|---|--------------|--------------|---|---|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|-------------|-----|-----|--|--|--|--|
| | | | | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | | | | |
| 0 | OAK RIDGE SENIOR ENRICHMENT CENTER | Thu 9/9/11 | Fri 4/18/14 | OAK RIDGE SENIOR ENRICHMENT CENTER | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2 | PHASE 1 - Programming & Feasibility Study | Thu 9/9/11 | Mon 4/9/12 | PHASE 1 - Programming & Feasibility Study | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | PHASE 2 - Design | Tue 5/1/12 | Tue 3/26/13 | PHASE 2 - Design | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | SCHEMATIC DESIGN PHASE | Thu 5/1/12 | Fri 6/29/12 | SCHEMATIC DESIGN PHASE | | | | | | | | | | | | | | | | | | | | | | | | |
| 21 | Owner Authorize S4D to proceed with CD's | Tue 5/1/12 | Tue 5/1/12 | 5/1 | Owner Authorize S4D to proceed with CD's | | | | | | | | | | | | | | | | | | | | | | | |
| 22 | S4D begin Schematic Design Pricing Package | Tue 5/1/12 | Mon 5/28/12 | 5/1 | S4D begin Schematic Design Pricing Package | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | SD Kick-off Meeting with Consultants | Thu 5/10/12 | Thu 5/10/12 | 5/10 | SD Kick-off Meeting with Consultants | | | | | | | | | | | | | | | | | | | | | | | |
| 24 | S4D complete Schematic Design Pricing Package | Tue 5/29/12 | Fri 6/29/12 | 5/29 | S4D complete Schematic Design Pricing Package | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | Transmit SD Package with Owner | Fri 6/29/12 | Fri 6/29/12 | 6/29 | Transmit SD Package with Owner | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | PRICING PHASE | Mon 7/2/12 | Thu 7/26/12 | PRICING PHASE | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | Obtain cost estimate | Mon 7/2/12 | Thu 7/19/12 | 7/2 | Obtain cost estimate | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | Review pricing with Owner | Fri 7/20/12 | Thu 7/26/12 | 7/20 | Review pricing with Owner | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | DESIGN DEVELOPMENT PHASE | Thu 7/26/12 | Thu 10/4/12 | DESIGN DEVELOPMENT PHASE | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | Owner Authorize S4D to proceed with DD's | Thu 7/26/12 | Thu 7/26/12 | 7/26 | Owner Authorize S4D to proceed with DD's | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | S4D begin Design Development Package | Fri 7/27/12 | Thu 8/23/12 | 7/27 | S4D begin Design Development Package | | | | | | | | | | | | | | | | | | | | | | | |
| 33 | DD Kick-off Meeting with Consultants | Tue 8/7/12 | Tue 8/7/12 | 8/7 | DD Kick-off Meeting with Consultants | | | | | | | | | | | | | | | | | | | | | | | |
| 34 | S4D complete Design Development Package | Fri 8/24/12 | Thu 10/4/12 | 8/24 | S4D complete Design Development Package | | | | | | | | | | | | | | | | | | | | | | | |
| 35 | Transmit DD Package with Owner | Thu 10/4/12 | Thu 10/4/12 | 10/4 | Transmit DD Package with Owner | | | | | | | | | | | | | | | | | | | | | | | |
| 36 | PRICING PHASE | Fri 10/5/12 | Wed 10/31/12 | PRICING PHASE | | | | | | | | | | | | | | | | | | | | | | | | |
| 37 | Obtain cost estimate | Fri 10/5/12 | Wed 10/24/12 | 10/5 | Obtain cost estimate | | | | | | | | | | | | | | | | | | | | | | | |
| 38 | Review pricing with Contractor | Thu 10/25/12 | Wed 10/31/12 | 10/25 | Review pricing with Contractor | | | | | | | | | | | | | | | | | | | | | | | |
| 39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | CONSTRUCTION DOCUMENTS PHASE | Wed 10/31/12 | Thu 1/24/13 | CONSTRUCTION DOCUMENTS PHASE | | | | | | | | | | | | | | | | | | | | | | | | |
| 41 | Owner Authorize S4D to proceed with DD's | Wed 10/31/12 | Wed 10/31/12 | 10/31 | Owner Authorize S4D to proceed with DD's | | | | | | | | | | | | | | | | | | | | | | | |
| 42 | S4D complete 50% CD's | Thu 11/1/12 | Wed 1/2/13 | 11/1 | S4D complete 50% CD's | | | | | | | | | | | | | | | | | | | | | | | |
| 43 | Review meeting with Codes Officials | Wed 11/14/12 | Wed 11/14/12 | 11/14 | Review meeting with Codes Officials | | | | | | | | | | | | | | | | | | | | | | | |
| 44 | CD 50% Review Meeting with Consultants, Contractor & Subcontractors | Wed 11/28/12 | Wed 11/28/12 | 11/28 | CD 50% Review Meeting with Consultants, Contractor & Subcontractors | | | | | | | | | | | | | | | | | | | | | | | |
| 45 | CD 50% Review Meeting with Owner | Wed 12/5/12 | Wed 12/5/12 | 12/5 | CD 50% Review Meeting with Owner | | | | | | | | | | | | | | | | | | | | | | | |
| 46 | Submit CD's to Owner for Final Review | Wed 1/2/13 | Wed 1/2/13 | 1/2 | Submit CD's to Owner for Final Review | | | | | | | | | | | | | | | | | | | | | | | |
| 47 | Redi-Check | Thu 1/3/13 | Thu 1/10/13 | 1/3 | Redi-Check | | | | | | | | | | | | | | | | | | | | | | | |
| 48 | S4D complete 100% CD's | Fri 1/11/13 | Thu 1/24/13 | 1/11 | S4D complete 100% CD's | | | | | | | | | | | | | | | | | | | | | | | |
| 49 | Issue and print CD packages | Thu 1/24/13 | Thu 1/24/13 | 1/24 | Issue and print CD packages | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | REGULATORY REVIEW | Thu 1/24/13 | Thu 3/28/13 | REGULATORY REVIEW | | | | | | | | | | | | | | | | | | | | | | | | |
| 51 | Submit CD's to Oak Ridge for Review | Thu 1/24/13 | Thu 1/24/13 | 1/24 | Submit CD's to Oak Ridge for Review | | | | | | | | | | | | | | | | | | | | | | | |
| 52 | Site & Building Plans Review | Fri 1/25/13 | Thu 2/14/13 | 1/25 | Site & Building Plans Review | | | | | | | | | | | | | | | | | | | | | | | |
| 53 | Receive Building Plans Review Comments | Thu 2/14/13 | Thu 2/14/13 | 2/14 | Receive Building Plans Review Comments | | | | | | | | | | | | | | | | | | | | | | | |
| 54 | S4D Incorporate Plans Review Comments into CD's | Fri 2/15/13 | Thu 2/28/13 | 2/15 | S4D Incorporate Plans Review Comments into CD's | | | | | | | | | | | | | | | | | | | | | | | |
| 55 | Finalize Plans Review | Fri 3/1/13 | Tue 3/12/13 | 3/1 | Finalize Plans Review | | | | | | | | | | | | | | | | | | | | | | | |
| 56 | Project Approved for Construction | Wed 3/13/13 | Tue 3/26/13 | 3/13 | Project Approved for Construction | | | | | | | | | | | | | | | | | | | | | | | |
| 57 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 58 | BIDDING PHASE | Wed 3/27/13 | Tue 5/28/13 | BIDDING PHASE | | | | | | | | | | | | | | | | | | | | | | | | |
| 59 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 60 | Phase 3 - Construction | Wed 5/29/13 | Fri 4/18/14 | Phase 3 - Construction | | | | | | | | | | | | | | | | | | | | | | | | |
| 61 | Mobilization | Wed 5/29/13 | Fri 5/31/13 | 5/29 | Mobilization | | | | | | | | | | | | | | | | | | | | | | | |
| 62 | Construction | Mon 6/3/13 | Fri 3/28/14 | 6/3 | Construction | | | | | | | | | | | | | | | | | | | | | | | |
| 63 | Substantial Completion | Fri 3/28/14 | Fri 3/28/14 | 3/28 | Substantial Completion | | | | | | | | | | | | | | | | | | | | | | | |
| 64 | Owner Install FF&E and Move-In | Mon 3/31/14 | Fri 4/4/14 | 3/31 | Owner Install FF&E and Move-In | | | | | | | | | | | | | | | | | | | | | | | |
| 65 | Final Punchlist & Obtain Certificate of Occupancy | Mon 4/7/14 | Fri 4/18/14 | 4/7 | Final Punchlist & Obtain Certificate of Occupancy | | | | | | | | | | | | | | | | | | | | | | | |

**City of Oak Ridge
New Senior Enrichment Center
Conceptual Project Budget**

May 12, 2011

| Construction Costs | cost/sf | Budget |
|--|-----------------|--------------------|
| Demolition | \$3.00 | \$45,000 |
| Sitework | \$13.00 | \$195,000 |
| New Construction @ 15,000sf | \$131.00 | \$1,965,000 |
| General Conditions | \$12.00 | \$180,000 |
| Concrete | \$5.00 | \$75,000 |
| Masonry | \$8.00 | \$120,000 |
| Steel | \$4.00 | \$60,000 |
| Carpentry | \$7.00 | \$105,000 |
| Moisture Protection | \$8.00 | \$120,000 |
| Doors & Windows | \$10.00 | \$150,000 |
| Finishes | \$25.00 | \$375,000 |
| Specialties | \$3.00 | \$45,000 |
| Mechanical | \$11.00 | \$165,000 |
| Plumbing | \$8.00 | \$120,000 |
| Fire Protection | \$3.00 | \$45,000 |
| Electrical | \$14.00 | \$210,000 |
| Indirect Costs (fees, bonds, profit, overhead, etc) | \$13.00 | \$195,000 |
| Construction Contingency @ 10% | | \$196,500 |
| Total Estimated Construction Costs | | \$2,401,500 |
| Furniture, Fixtures & Equipment | | |
| Furniture, Fixtures & Equipment | 5.00% | \$120,075 |
| Fitness Equipment | | \$50,000 |
| Total Estimated FF&E Costs | | \$170,075 |
| Soft Costs | | |
| A/E Basic Services Design Fees | 6.25% | \$150,094 |
| LEED (design, documentation, fees, commissioning) | 4.00% | \$96,060 |
| Interior Design Fee (FF&E selection & specification) | 0.75% | \$18,011 |
| Specialty Consulting Fees (if required) | 1.50% | \$36,023 |
| Site Survey | 0.25% | \$6,004 |
| Geotechnical Report / Materials Testing | 0.40% | \$9,606 |
| Administrative & Legal Expenses | 2.00% | \$48,030 |
| Soft Cost Contingency | 2.00% | \$48,030 |
| Total Estimated Soft Costs | | \$411,857 |
| Total Estimated Project Cost | | \$2,983,432 |

SCHEDULE

Based on the program and complexity of the project, a six to eight month schedule for design is suggested to prepare the design and complete construction documents for bidding and construction. The construction of the project is expected to be in the range of eight to twelve months. The duration is dependent upon when construction is commenced and what the desired target date of completion is.

BUDGET

A preliminary budget of costs for the project was developed by Studio Four Design based on historic cost data for similar, recently completed projects. This budget is based upon the assumption of demolishing a portion of the existing building and constructing a new building on the same site. The total estimated project budget including construction costs, FF&E, soft costs and contingency is estimated to be at approximately \$2.9 million.

[SCHEDULE & BUDGET]