

Predesign Study

Arrowhead Regional Health and Wellness Center

Hermantown, Minnesota



Developed by:



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Executive summary

Saint Louis County ranks 75th out of 87 counties in the State of Minnesota for health outcomes affecting length and quality of life. A community-based solution incorporating a holistic wellness program is critical to make a lasting positive change. In 2014 the State of Minnesota granted the City of Hermantown \$250,000 to conduct a predesign study to develop a solution to this problem. This report summarizes how that investment was used through an investigative process that has yielded inspiring design results.

The Arrowhead Regional Health and Wellness Center will be a ***\$16,000,000*** facility consisting of a ***70,000 s.f. building on 11 acres*** of land at the corner of Ugstad Road and Arrowhead Road on the current Hermantown Middle School site. Amenities will include:

- ***A top notch aquatics center as the cornerstone for the facility***
- ***Modern fitness facilities with gymnasium, running track, and racquetball***
- ***Locker rooms accommodating adults, all-ages, families, and special needs***

These will complement the community-focused amenities available to the general public including:

- ***Daycare, Teens and Seniors Center, Multipurpose space***
- ***Physical therapy, Café, Dietetics and Health Education facilities***
- ***A spacious lobby linking amenities into a “Main Street”***

A key decision in the predesign process that allows the facility to maximize the budget was the reuse of specific portions of the existing middle school in Hermantown. Slated for demolition at the end of the school year in May of 2016, the middle school facility and site was the top choice in the site selection process. ***The existing 1992 classroom addition and gymnasium provide 26,000 square feet of reusable public building infrastructure that can be remodeled at a fraction of the cost to build new.*** This also reduces the cost of demolition, disposal, energy, and materials for new construction. ***The savings to the project*** conservatively equates to \$100 per square foot or roughly ***\$2,500,000***. Time is of the essence; however, as the existing middle school building is **slated** to be completely removed after June 2016 if the ARHWC project is not moving forward at that time.

We look forward to helping Saint Louis County make a strong turn-around in health outcomes with this game-changing project. The partnerships between the State, County, City, Townships, private sector operators, and capital campaign donors are overwhelmingly strong and will continue to grow with the potential that this project will bring to building a healthy and thriving Saint Louis County Community.

Operations plan:

(YMCA / City terms sheet bullet points with School District)

1.
 - a.
 - b.
 - c.
2.
 - a.
 - b.
3.
 - a.
 - b.
4.
 - a.
 - b.
 - c.

Scope of Work

The Arrowhead Regional Health and Wellness Center will be a \$16,000,000 facility owned by the City of Hermantown and operated by the YMCA as a single tenant. Operational partnerships through sublease agreements between the YMCA and regional healthcare and community education providers will reach the broad demographic of Saint Louis County. Partnerships for initial capital investments are underway with St. Louis County and the City of Hermantown. The project has broad support with endorsements from all of the above in addition to 3 neighboring cities and 14 Townships. A population base of over 50,000 will be served through this facility with expanding reach for regional events and activities.

Cost Analysis (includes all costs associated with the project)

• New Construction Aquatics, Fitness, Locker Rooms, Lobby, Kids Club, Teen/Senior Center & Multipurpose	44,892 SF \$	9,082,435
• Remodel Existing Two-story classroom building Licensed Daycare, Physical Therapy, Sports Medicine, Health Education & Continuing Education	19,700 SF \$	1,270,256
• Remodel Existing Gymnasium Modern Multi-functional court space	7,000 SF \$	451,360
• Site Re-Development Costs 300 car parking, Pedestrian access, Sports Fields, Landscaping	10.49 Acres \$	1,371,358
CONSTRUCTION SUBTOTAL	\$	12,175,409
TOTAL PROJECT COST	\$	16,000,000

Funding Sources

• State Bonding Request	\$8,000,000
• St. Louis County/City of Hermantown	\$4,000,000
• <u>Capital Campaign goal</u>	<u>\$2,982,582</u>
TOTAL FUNDING	\$14,982,582

Schedule

• Funding	June 2015
• Design	July 2015 – February 2016
• Bidding and Award	March 2016 – May 2016
• Construction (14 mos.)	May 2016 – July 2017
• Occupancy	August 2017

Project Data Sheet

Building Occupancy: A-2 (Assembly), B (Office)

Primary Uses: Fitness, Aquatics, Multipurpose, Childcare, Healthcare

Construction Type: B-2, Fully Sprinklered

Area	Wellness	Gymnasium	Childcare	Aquatics	Lockers	Admin	TOTAL SF
Sq. Feet	11,220	19,324	7,958	17,559	5,940	9,591	71,592

- Parking:
 - 300 new surface lot on three sides of the facility, including entry drop-off loop.
- Site Area:
 - 10.49 acres total footprint.
 - 107,389 SF building footprint, landscape, and hardscape areas
 - 114,975 Parking spaces, circulation, and islands
 - 175,000 Sports Fields
 - 59,605 Site Circulation
- Construction type
 - Roofing:
 - Fully Adhered Single Ply Membrane on steel deck
 - Exposed ceiling with clouds, suspended acoustical ceiling, gypsum board
 - Exterior wall types:
 - Masonry cavity, High performance glazing system, architectural panel
 - Interior wall types:
 - CMU, Gypsum board/steel stud
 - Tile finishes in wet and high impact areas, paint u.n.o.
 - Floor construction:
 - Concrete slab on grade, Concrete composite deck on steel frame
 - Tile in wet areas, resilient flooring, hardwood, polished concrete, epoxy
 - Structural system
 - Steel braced frame - columns, girders, and beams
 - Mechanical system
 - Variable frequency drive thermal system, Heat exchanger ventilation
 - Electrical system
 - LED lighting, Emergency generator
 - AV Tech
 - Security system with video, access control, and fire alarm
 - Data closet and pathways, member access and point of sale network
 - Audio-Visual with public address system, OH projection, lighting controls

Project Background

Statement of need

Health outcomes for the citizens in Saint Louis County are alarming. In a region known for recreational opportunity, a serious disconnect exists with its residents in creating healthy and active lifestyles. Like the treadmills that collect dust in garages everywhere, a simple fitness solution is not the answer. A program operated by the YMCA, which focuses on holistic health and community wellness will address key lifestyle changes for all ages regardless of wealth. Each health statistic deficiency is specifically addressed through YMCA programming and/or the partnerships being formed with educational and healthcare providers in Saint Louis County.

See [South St. Louis County CHA 2013](#), [St. Luke's CHNA 2013](#), and [Essentia CHNA 2013](#)

- *Obesity*
- *Anxiety and Depression*
- *Alcohol, tobacco, and other drug use in children and adolescents*
- *Disparity and inequity related to poverty*
- *Unprotected sex in adolescents*
- *Poor dental health access*
- *High number of single parent households in poverty*
- *High smoking rate during pregnancy*
- *Lack of exercise*
- *High rate of under-insured/uninsured*
- *High incidence of heart disease*
- *Healthcare needs to integrate public health into mental health*

Question whether to include 2014 County Health Rankings and Roadmaps stats – mostly focused on social economic factors and not as strong in the physical health indicators. If included, we need to show how this facility and more importantly the YMCA program will effectively improve these stats.

Project History

ARHWC background leading up to Predesign services RFP process.

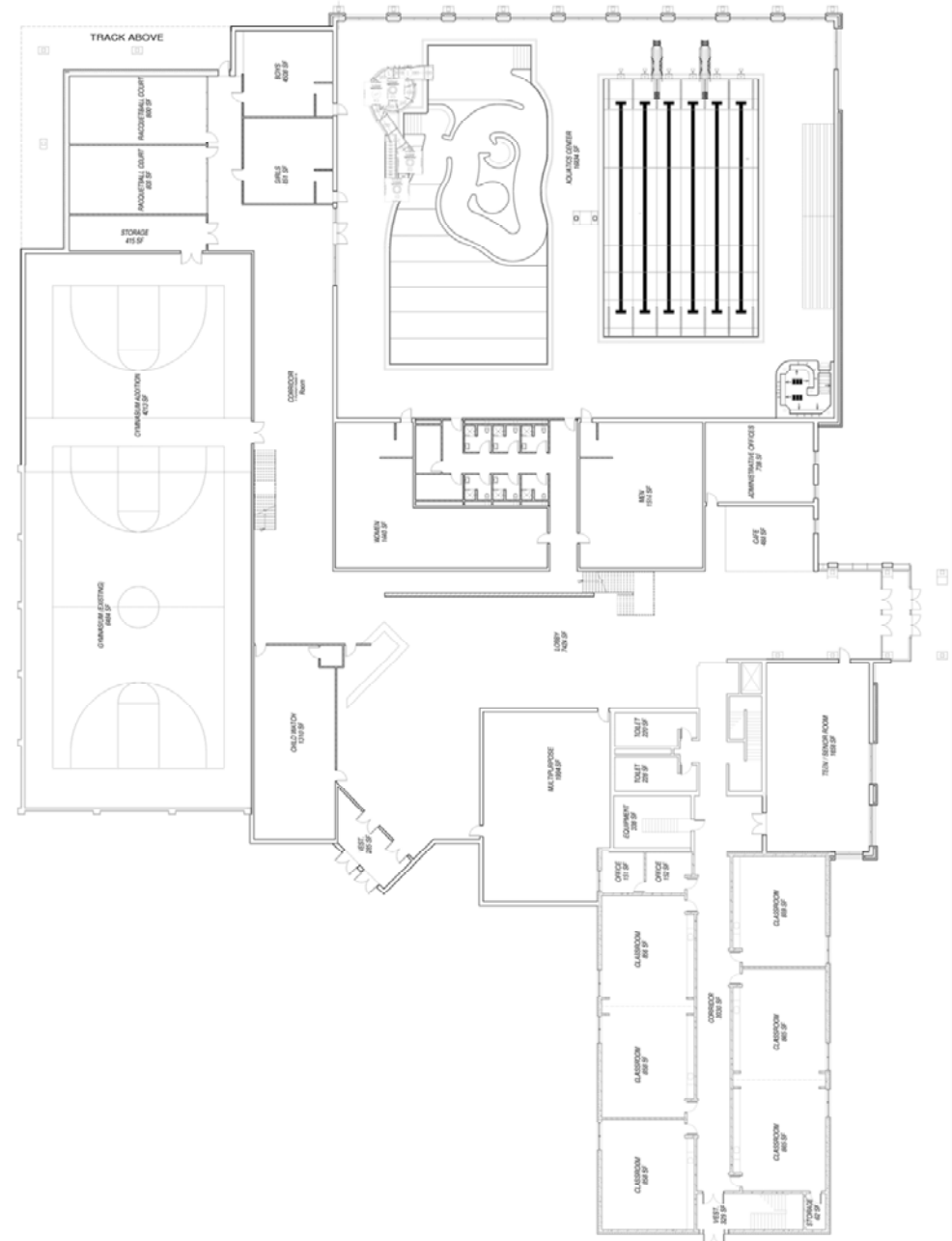
Design outcomes



Site plan

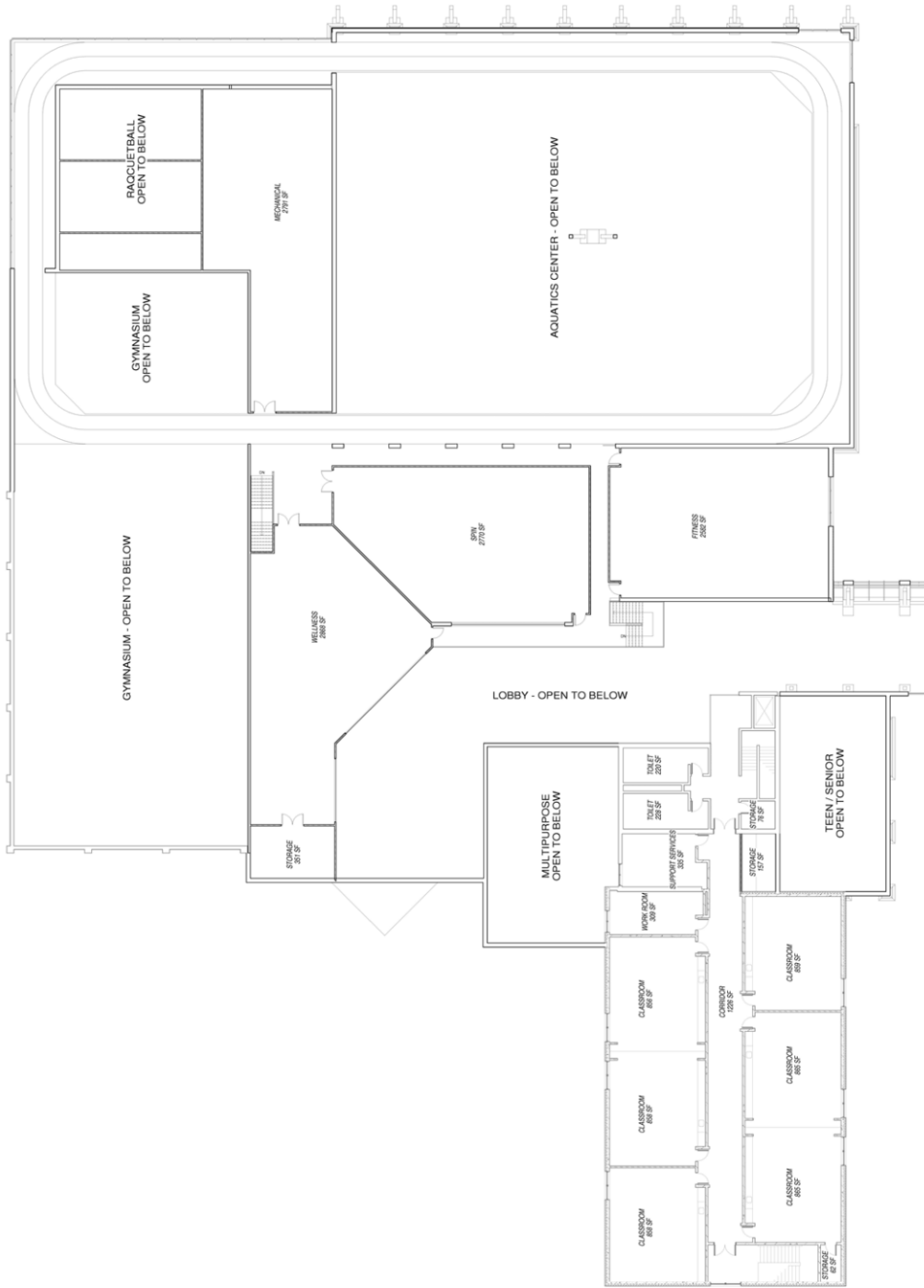
Key Site Design Decisions

- Site chosen promotes wetland preservation, site infrastructure reuse, improves traffic flow and congestion, creates connections to trails system, promotes pedestrian safety.
- Quit Claim Deed language from 1936 Title from Federal Land Grant indicates recreational, community facility use to benefit residents of Saint Louis County as the intention for this parcel.
- Building Reuse potential on this site allows significant savings to the project, leveraging public building infrastructure to increase program and space offerings.



First Floor plan

- Aquatics center placement was key to the layout of the floor plan. Coupled with the location of the existing building components the voids between them became the connective space.
- A 360 degree building has multiple “front doors” and the lobby has two entrance points converging at one control point for the YMCA.
- Member access control is also a strong determining factor in placement of the spaces in the program. The north half of the building is the demising line between public and private.
- Building performance has also been taken into account to maximize effective daylighting, security, energy and operations efficiency, materials resilience, and aquatics innovations.



Second Floor plan

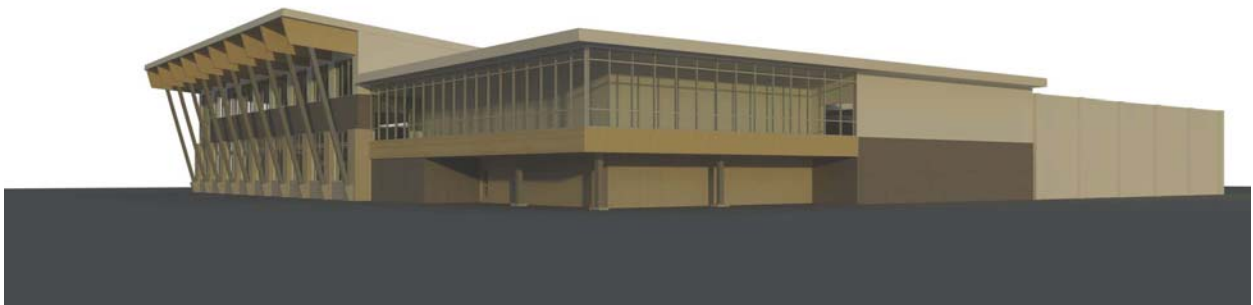
- An integrated pedestrian walking / jogging track is integrated into the high bay spaces to maximize utilization of the building volume and provide a year round cardio amenity for users.
- Consolidated fitness / wellness areas concentrate member activity while saving operational costs through HVAC and personnel efficiencies for maintenance and member services.



View of Southwest corner at Ugstad Road and Arrowhead Road



View from Northbound Ugstad Road



View from Eastbound Arrowhead Road

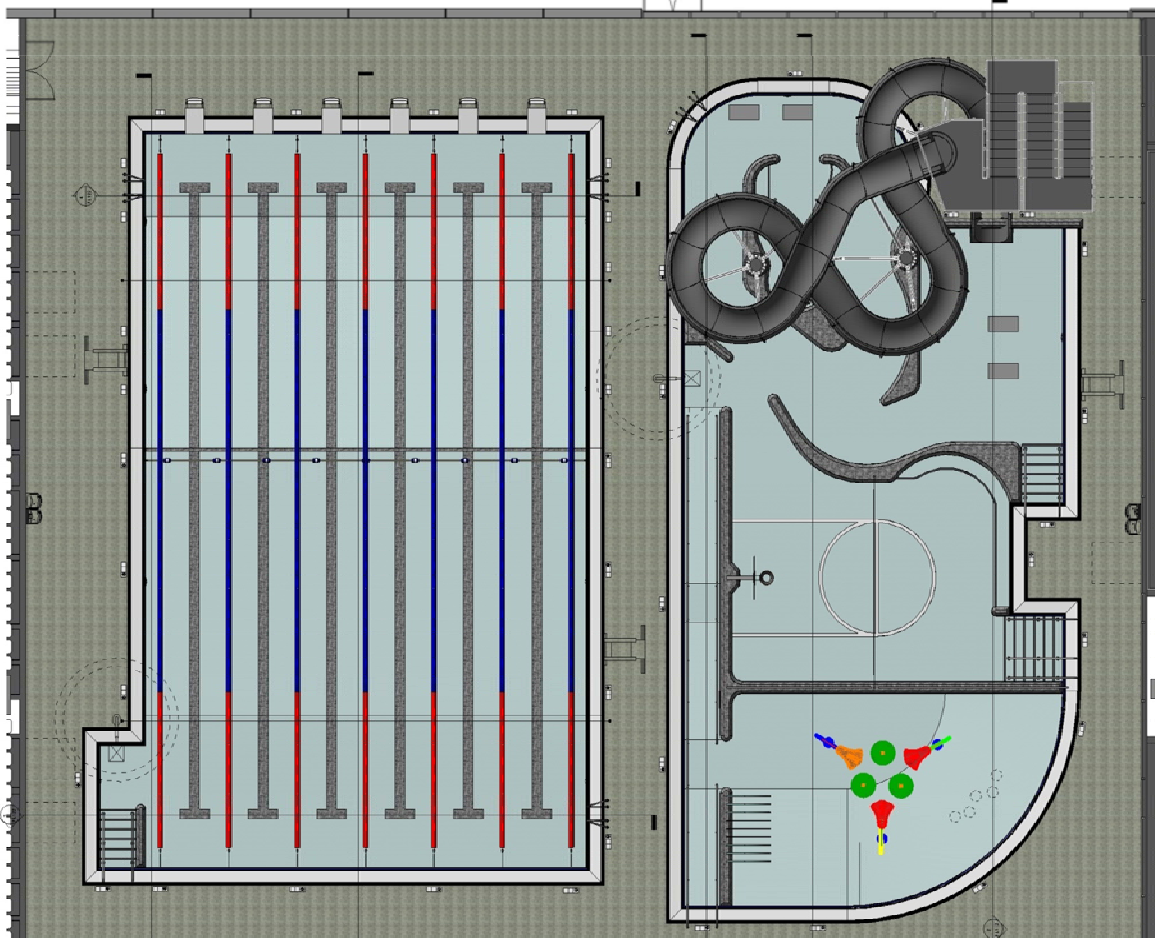
Interior renderings



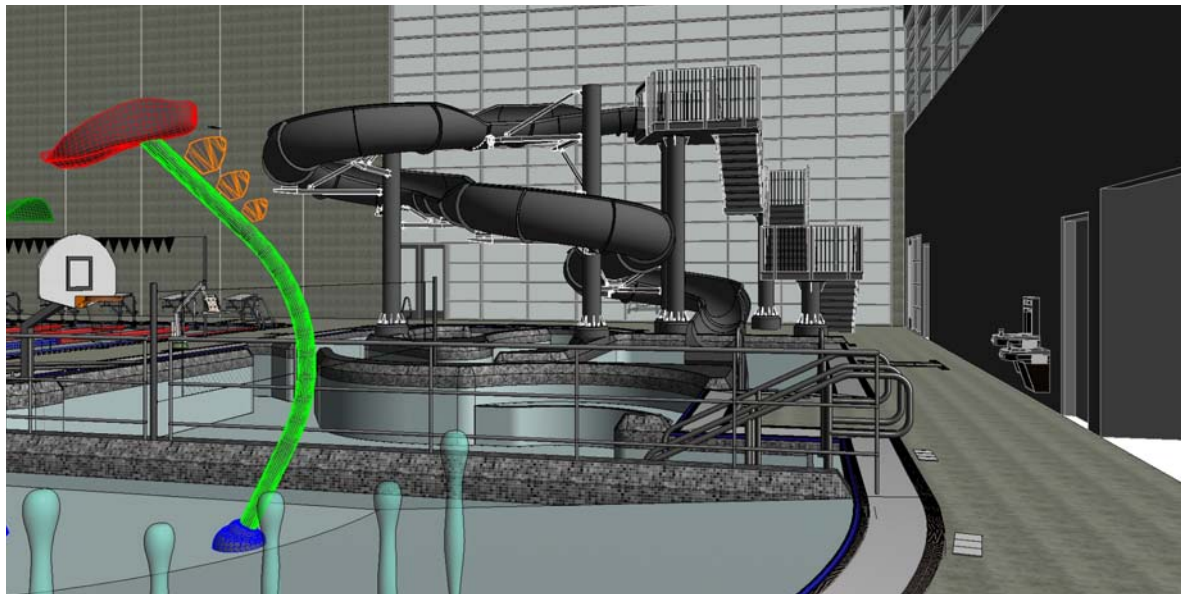
Placeholder



Placeholder



Aquatics Center Plan



Aquatics Center Plan

Design Methodology

Qualitative Programming

In parallel with the quantitative analysis of the facility, which identifies square footage and capital costs, LHB's team conducted an integrative qualitative programming process. Community outreach was conducted in the form of questionnaires and open forums to rank a series of prioritized goals for the project. These goals were categorized into Economy, Society, and Environment categories. This process provided a clear set of user objectives for the design solution to meet. This ensures that the facility is tailored to meet the needs of this specific community for today and into the future. As an added benefit the community has become engaged in the planning and design process, which builds grassroots support for the project and provides broad input for the design team to consider.



Economy

Operations

- Create staffing efficiencies through design and technology**
- Provide ability to expand and grow programs and services in the facility**

Resilience

- Create facility that is relevant and adaptable over lifetime of building**
- Exceptionally durable material choices for the interior and exterior**

Maintenance

- Material choices that are easily cleaned, repaired, or replaced
- Facility configuration that allows efficient preventative maintenance

Local

- Facility design and placement that stimulates the local economy
- Facility amenities that attract population growth in the region

Social Health

Design solutions that promote healthy living choices
Building systems that improve occupant health (daylight, air quality, acoustics, etc)

Safety

Pedestrian and vehicular specific safety strategies and effective separation
Security and crime prevention through design outcomes

Equality

Facility addresses needs of all demographics regardless of age, wealth, mobility, gender
 Facility serves the needs of regional users

Comfort

Occupant comfort drives the criteria for amenities and building systems
 Design outcomes encourage users to linger at the facility

Environment

Flexibility

Design solutions allow for maximum use of square footage
Building systems serve widely varying conditions of internal use and climate

Energy use

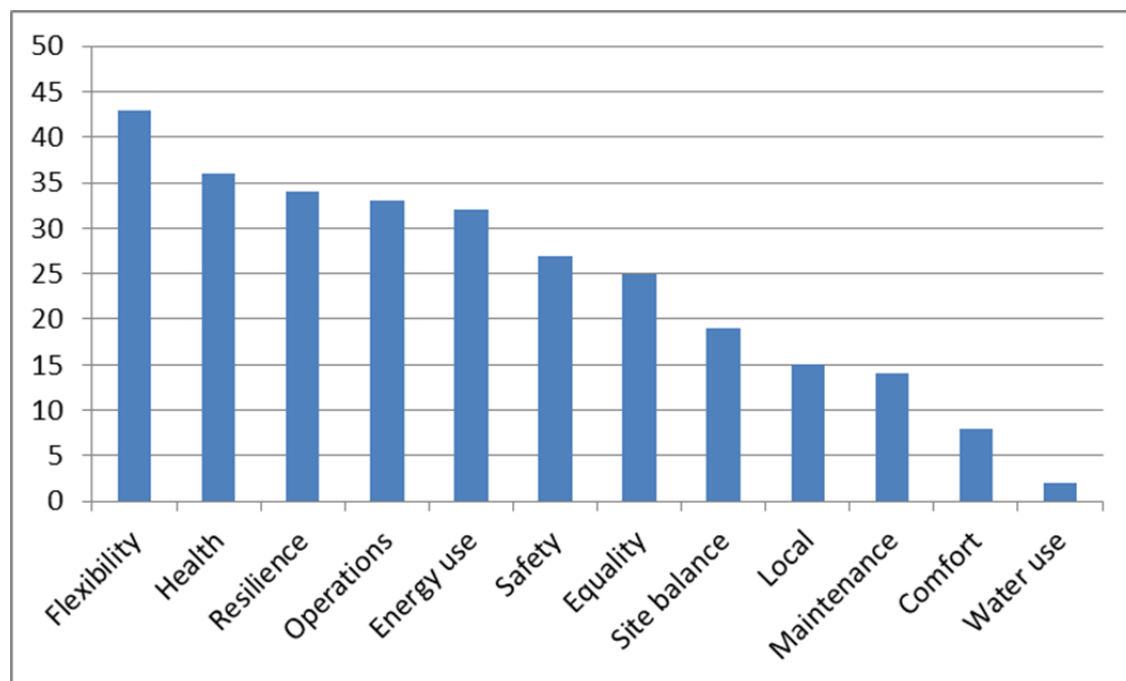
Efficiency in electrical and fuel consumption use are primary drivers for system criteria
Operational costs are minimized through life cycle savings on utility consumption

Site balance

Storm water runoff quantity, heat island effect, and site disturbance are minimized
 Green space, storm water quality, use of existing utilities/infrastructure are maximized

Water use

Potable water use is minimized
 Sewer conveyance is minimized



Quantitative Programming

information based on feasibility study conducted for YMCA by _____

YMCA USA prototypes based on statistical data from similar successful facilities across the were used as a baseline for the space needs program. Additional input from community outreach meetings and stakeholder questionnaires was generated to create a unique program for this facility. Initial spreadsheet analysis with cost impacts was compiled and reviewed with the ARHWC Steering Committee shared with the general public, potential operating partners, townships, and County.

Space Needs Summary			
Department	S.F.	Budget	Cost/S.F.
Wellness Center			
Subtotal	7,360	\$ 1,075,000	\$ 146
Gymnasium			
Subtotal	19,976	\$ 3,260,000	\$ 163
Sport Courts			
Subtotal	1,840	\$ 350,000	\$ 190
Child Care			
Subtotal	7,958	\$ 1,179,750	\$ 148
Aquatics Center			
Subtotal	8,256	\$ 2,480,650	\$ 300
Locker Room			
Subtotal	6,958	\$ 1,498,625	\$ 215
Administration			
Subtotal	4,876	\$ 757,850	\$ 155
Building Subtotal (S.F.)			
	57,224		10,601,875
Site Subtotal (acres)			
	10.78	\$	883,854
Design Contingency			
	5%	\$	574,286
Construction Contingency			
	5%	\$	574,286
Construction Cost Total			\$ 12,634,301
Final Design Fees			
	6%	\$	758,058
Testing & Inspections			
	3%	\$	379,029
B3 Guideline provision			
	2%	\$	252,686
Permitting Fees			
		\$	631,715
Furniture, Fixtures, & Equipment			
		\$	686,682
Soft Cost Total			\$ 2,708,170
TOTAL PROJECT COST			\$ 15,342,472

Arrowhead Regional Health and Wellness Center
Hermantown, MN

Space Needs Detail					
Department	Space	S.F.	\$/ S.F.	Premium	
Wellness Center					
	Wellness Center	4,000	\$ 150	\$ 600,000	
	Walking / Jogging Track	6,000	\$ 100	\$ 600,000	
	Fitness testing office	200	\$ 125	\$ 25,000	
	Circulation 10%	1,020	\$ 125	\$ 127,500	
	Subtotal	11,220		\$ 1,352,500	
Gymnasium					
	Gymnasium (existing)	7,000	\$ 50	\$ 350,000	
	Gymnasium Addition	-	\$ 180	\$ -	
	Equipment Storage	400	\$ 125	\$ 50,000	
	Exercise/Aerobic/MP	2,000	\$ 150	\$ 300,000	
	Equipment Storage	200	\$ 125	\$ 25,000	
	Multipurpose Room	2,000	\$ 150	\$ 300,000	
	Storage	200	\$ 125	\$ 25,000	
	Kitchenette	200	\$ 200	\$ 40,000	
	Teen/Senior Room	2,000	\$ 150	\$ 300,000	
	Storage	160	\$ 125	\$ 20,000	
	Spin Studio	1,200	\$ 125	\$ 150,000	
	Circulation 15%	2,124	\$ 125	\$ 265,500	
	Subtotal	17,484		\$ 1,825,500	
Sport Courts					
	Raquetball/Handball	1,600	\$ 200	\$ 320,000	20'x40'x20'h
	Circulation 15%	240	\$ 125	\$ 30,000	5' hall x 45'
	Subtotal	1,840		\$ 350,000	
Child Care					
	(Assumes remodel of existing 1992 wing of Middle School)				
	Child Center Classrooms	5,000	\$ 50	\$ 250,000	Remodel
	Storage	320	\$ 40	\$ 12,800	Remodel
	Toilets	320	\$ 120	\$ 38,400	Remodel
	Child Watch/Meeting Rm	1,200	\$ 125	\$ 150,000	
	Toilets	80	\$ 200	\$ 16,000	
	Circulation 15%	1,038	\$ 60	\$ 62,280	Remodel
	Subtotal	7,958		\$ 529,480	
Aquatics Center					
	Instruction / Lap Pool	7,056	\$ 220	\$ 1,552,320	
	Equipment Storage	350	\$ 125	\$ 43,750	
	Whirlpool	250	\$ 550	\$ 137,500	
	Pool Deck	8,767	\$ 150	\$ 1,315,080	
	Pool Office	200	\$ 150	\$ 30,000	
	Sauna	100	\$ 400	\$ 40,000	
	Waterslide & Tower			\$ 200,000	
	Water Activities			\$ 100,000	
	Circulation 5%	836	\$ 120	\$ 100,339	
	Subtotal	17,559		\$ 3,518,989	
Locker Room					
	Women's Locker Room	1,800	\$ 180	\$ 324,000	
	Men's Locker Room	1,800	\$ 180	\$ 324,000	
	Family Locker Room	600	\$ 180	\$ 108,000	
	Girls Locker Room	600	\$ 160	\$ 96,000	
	Boys Locker Room	600	\$ 160	\$ 96,000	
	Circulation 10%	540	\$ 150	\$ 81,000	
	Subtotal	5,940		\$ 1,029,000	
Administration					
	Lobby	1,600	\$ 180	\$ 288,000	
	Administrative Offices	1,100	\$ 65	\$ 71,500	Remodel
	Service Counter	330	\$ 170	\$ 56,100	
	Health Care	2,500	\$ 65	\$ 162,500	Remodel
	Women's Toilet	120	\$ 150	\$ 18,000	
	Men's Toilet	120	\$ 150	\$ 18,000	
	House Storage	350	\$ 125	\$ 43,750	
	Janitor Closet	120	\$ 125	\$ 15,000	
	Mechanical / Filtration	1,850	\$ 125	\$ 231,250	
	Electrical Room	250	\$ 125	\$ 31,250	
	Circulation 15%	1,251	\$ 125	\$ 156,375	
	Subtotal	9,591		\$ 1,091,725	

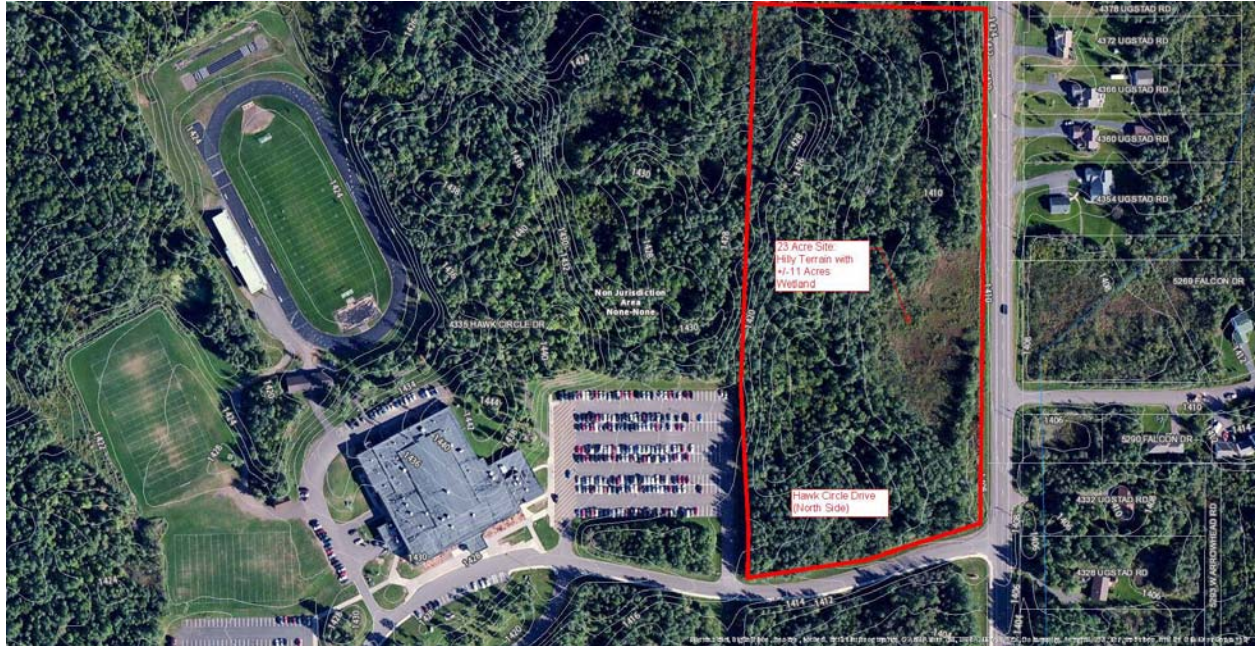
Site selection process



Site option 1: Hermantown Government Services Center



Site option 2: Fichtner Field Complex



Site option 3: Hawk Circle Drive North



Site Option 4: Hawk Circle Drive South



Site option 5: Hermantown Middle School Site (Preferred site)

Primary Site Characteristics (Impact for duration of the building 75+ years)

	Acreege	Site Size	Location	Visibility	Site Flexibility	Connectivity	Comm. Access	Topography	Wetlands	Total (80)
Government Service Center	8 Ac	6	7	8	3	6	8	7	7	52
Fichtner Field/ Historical Center	40 Ac (15+ Ac usable)	10	8	7	8	10	8	7	5	63
Hawk Circle Drive (North side)	23 Ac (11 Ac usable)	9	7	7	5	8	7	7	3	53
Hawk Circle Drive (South side)	6 Ac (4 Ac usable)	2	7	7	1	8	7	8	3	43
Middle School	22 (20 Ac usable)	10	9	8	10	10	7	8	9	71

Secondary Site Characteristics (Impact is limited to less than 20 years)

	City Plan	Prop. Aquisition	Utilities	Storm Water	Soil Types	Development Costs	Future Development	Totals (60)
Government Service Center	8	7	9	7	7	5		43
Fichtner Field/ Historical Center	8	7	8	5	7	7		42
Hawk Circle Drive (North side)	8	6	7	6	5	3		35
Hawk Circle Drive (South side)	8	6	7	4	5	3		33
Middle School	8	6	9	10	8	*4/10		*45/51

*Low number includes existing building demolition.



Site Review & Comparison
Draft 11/12/14

Conceptual masterplanning

Charrette process

In-house Integrative process

Outcomes and conclusions

