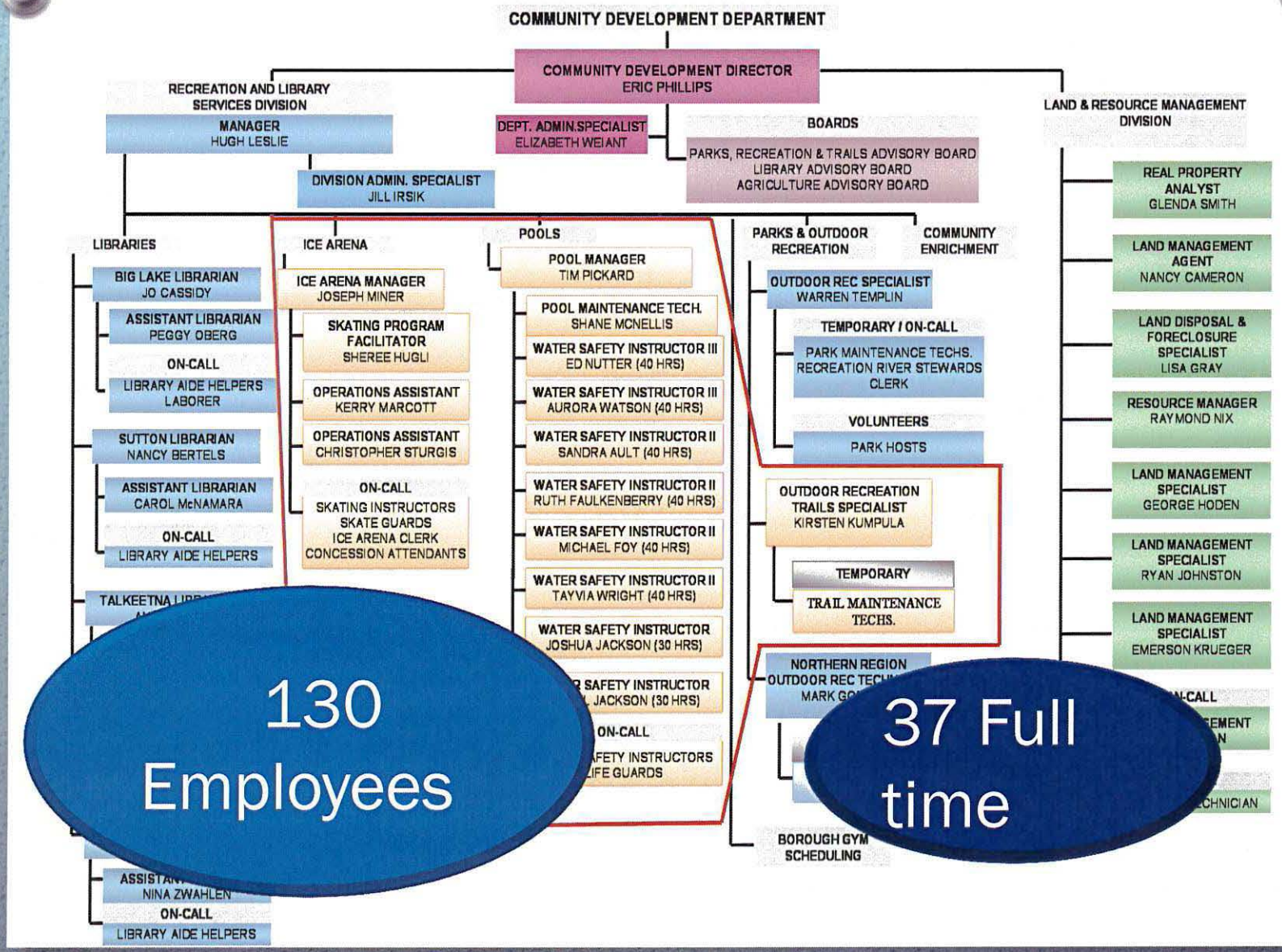
Community Development

December 15, 2015

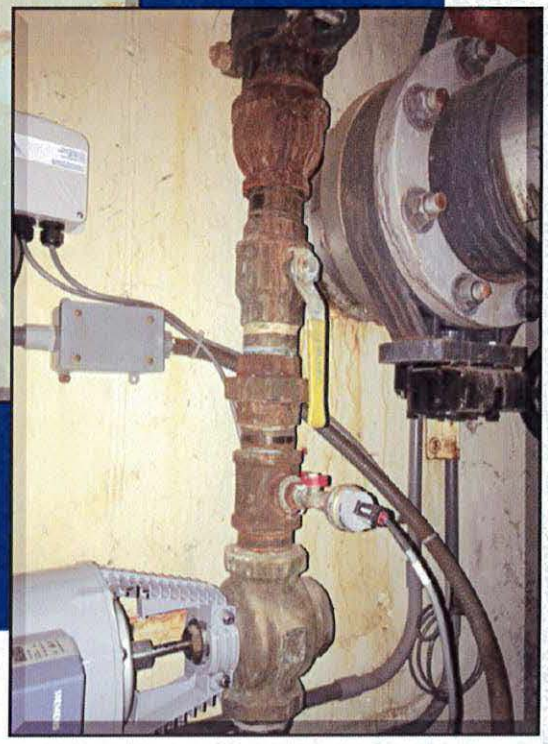
Community Development Department



Age Matters

Brett Ice Arena Maintenance

Palmer & Wasilla Pools Maintenance



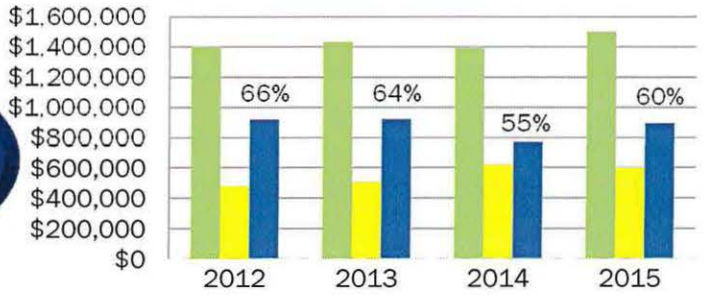
Palmer and Wasilla Pools

Average of 144,000 patrons/yr*

32,000 Swimming lessons/yr*

*Since 2012

Total Yearly Expenses / Revenue / Subsidy Rate



	2012	2013	2014	2015
Total Yearly Expenses	$1,402,493	$1,435,175	$1,396,847	$1,500,688
Total Yearly Revenue	$478,877	$510,487	$622,218	$603,700
Subsidy Rate	$923,616	$924,688	$774,629	$896,988

Palmer & Wasilla Pools

- The pool liners, gutters, drains, and underwater lights are 30+ years old and are either leaking, corroded, or not energy efficient.
- The pool deck is narrow, and the tile and grout is chipping and peeling
- The mechanical systems are all 30+ years old. The pipes leak and have been repaired to various degrees.
- Necessary monitoring gauges are not installed, some valves are rusted and inoperable.
- The overhead lighting is not up to code.
- The humidity is high due to undersized air handling units.
- Pool depth at Wasilla Pool is insufficient to allow diving

Palmer Pool

- Option #2
  - New 6 lane competition pool, leisure pool, and play elements
  - Repair and replace surfaces, corrective work to meet code requirements, remodel/repair locker rooms
  - Repair/replace existing obsolete mechanical systems including; air handling units, boilers, pumps, piping, fire sprinklers, ductwork, roof work, and hydronic systems
  - Repair/replace existing electrical systems including; panels, lighting, fire alarms, wiring, and fixtures

Site Work	$ 138,813
Substructure	$ 52,219
Superstructure	$ 59,073
Exterior Closure	$ 87,352
Roof Systems	$ 495,264
Interior Construction	$ 438,669
Mechanical Systems	$ 1,153,879
Electrical Systems	$ 558,497
Equipment	$ 27,780
Special Construction(pool)	$ 1,332,500
Contingencies and other consideration	$ 2,228,361
Total	$ 6,572,407

Option #1 Cost $ 5,527,986

Option #3 Cost $ 11,661,022

Wasilla Pool

- Option #2
  - 6 Lane competition pool, leisure pool and seating
  - Repair and replace surfaces, corrective work to meet code requirements, remodel/repair locker rooms
  - Repair/replace existing obsolete mechanical systems including; air handling units, boilers, pumps, piping, fire sprinklers, ductwork, roof work and hydronic systems
  - Repair/replace existing electrical systems including; panels, lighting, fire alarms, wiring, and fixtures

Site Work	$ 104,330
Substructure	$ 48,805
Superstructure	$ 36,036
Exterior Closure	$ 55,349
Roof Systems	$ 29,189
Interior Construction	$ 280,067
Mechanical Systems	$ 1,034,243
Electrical Systems	$ 525,413
Equipment	$ 23,140
Special Construction(pool)	$ 1,371,750
Contingencies and other considerations	$ 1,799,660
Total	$ 5,307,982

Option #1 Cost $ 3,707,765

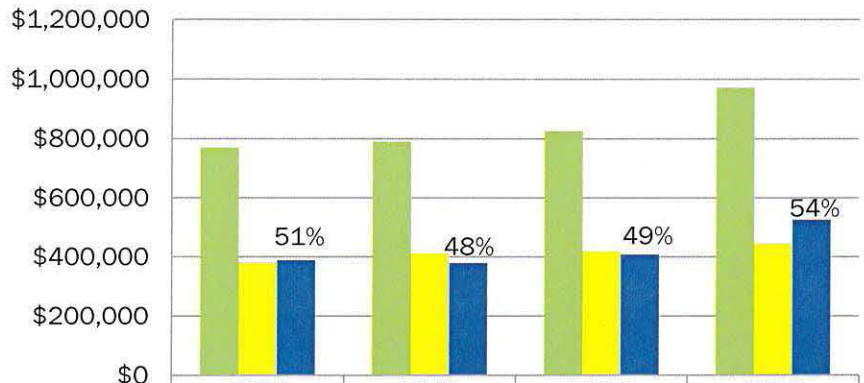
Option #3 cost $ 11,432,183

What About a New Facility?

Brett Memorial Ice Arena

Average 57,000 on Ice annually*

Total Yearly Expenses / Revenue / Subsidy Rate



	2012	2013	2014	2015
Total Yearly Expenses	$769,566	$789,627	$825,009	$971,812
Total yearly revenue	$380,638	$410,366	$416,737	$445,466
Subsidy Rate	$388,928	$379,261	$408,272	$526,346

*since 2012

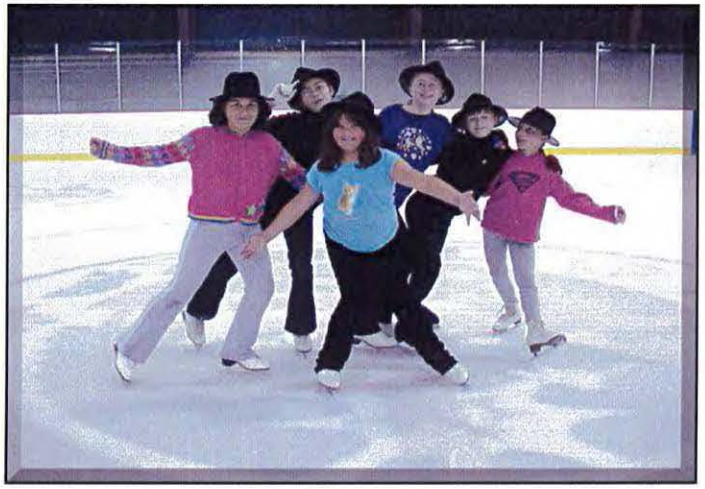
Brett Memorial Ice Arena

- Constructed 1984
  - Existing rink floor has concrete poured over a sand floor refrigeration system.
  - Rink gas heaters have reached the end of their useful life span.
  - The refrigeration system uses R-22 refrigerant, which has been banned from being produced.
  - A new more environmental/economical refrigerant system is needed.
  - The mechanical rooms lack ventilation resulting in potential health/safety hazards for staff.

Recommendations

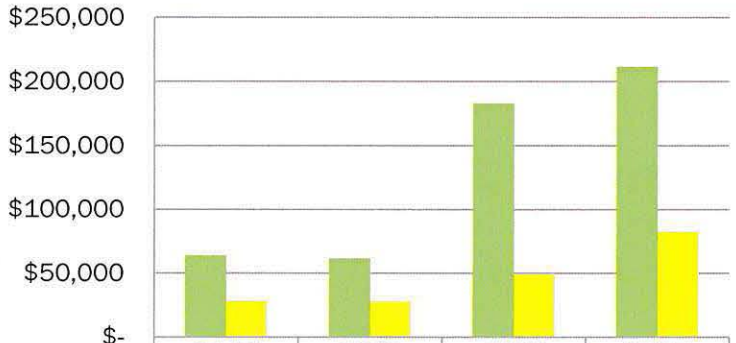
Brett Ice Arena

Repair Code Violations	$ 257,631
Repair/Replace Existing Obsolete Operating Systems and Fixtures	$ 1,111,018
Replace Rink Floor and Refrigeration with CO2 Direct System	$ 2,376,000
Total	**$ 3,744,649**



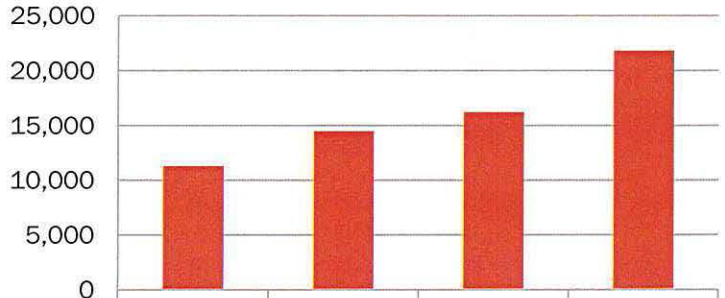
Trails

Total Yearly Expenses / Revenue



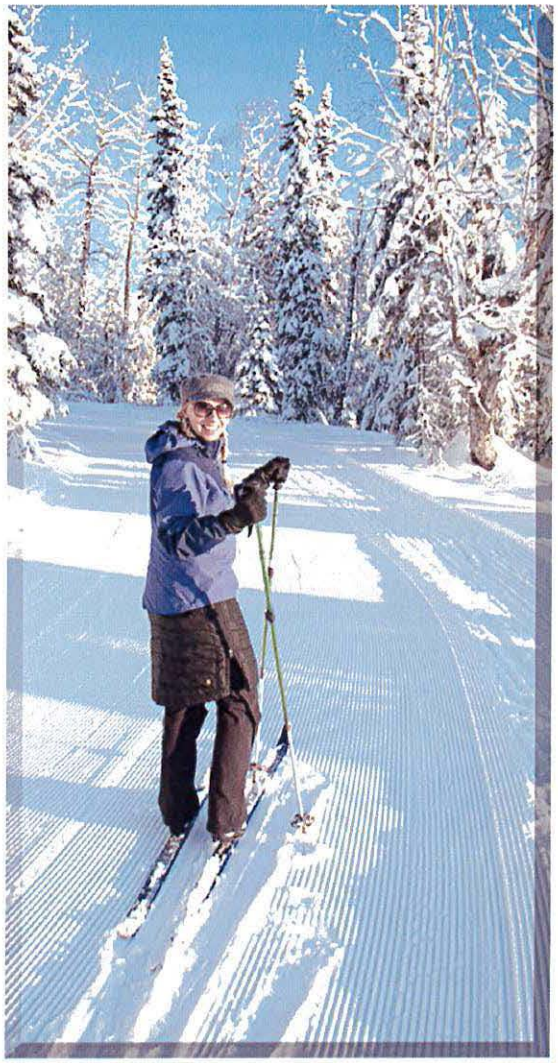
	2012	2013	2014	2015
Total Yearly Expenses	$63,870	$61,515	$183,212	$211,324
Total Yearly Revenue	$27,813	$27,575	$49,619	$82,397

Users Paying Trailhead Parking Fees*



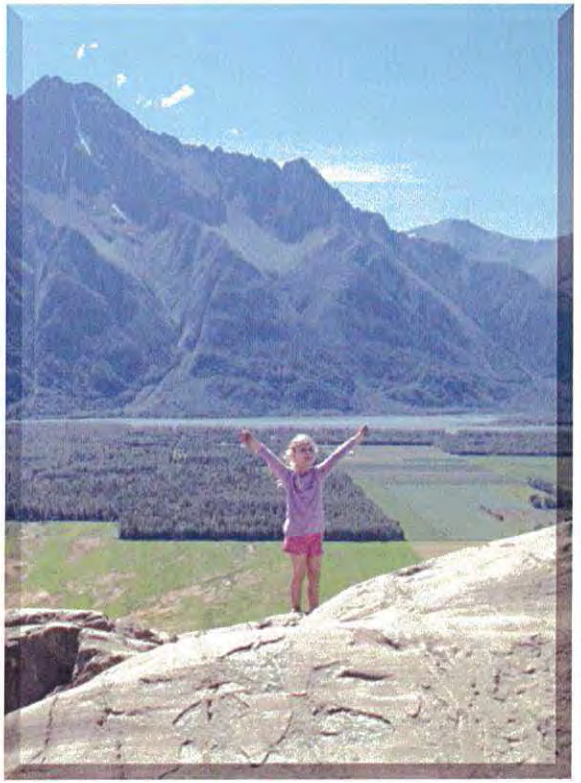
	2012	2013	2014	2015
Users paying parking fees	11,289	14,466	16,215	21,788

*Paid fees represent a small portion of actual trail users

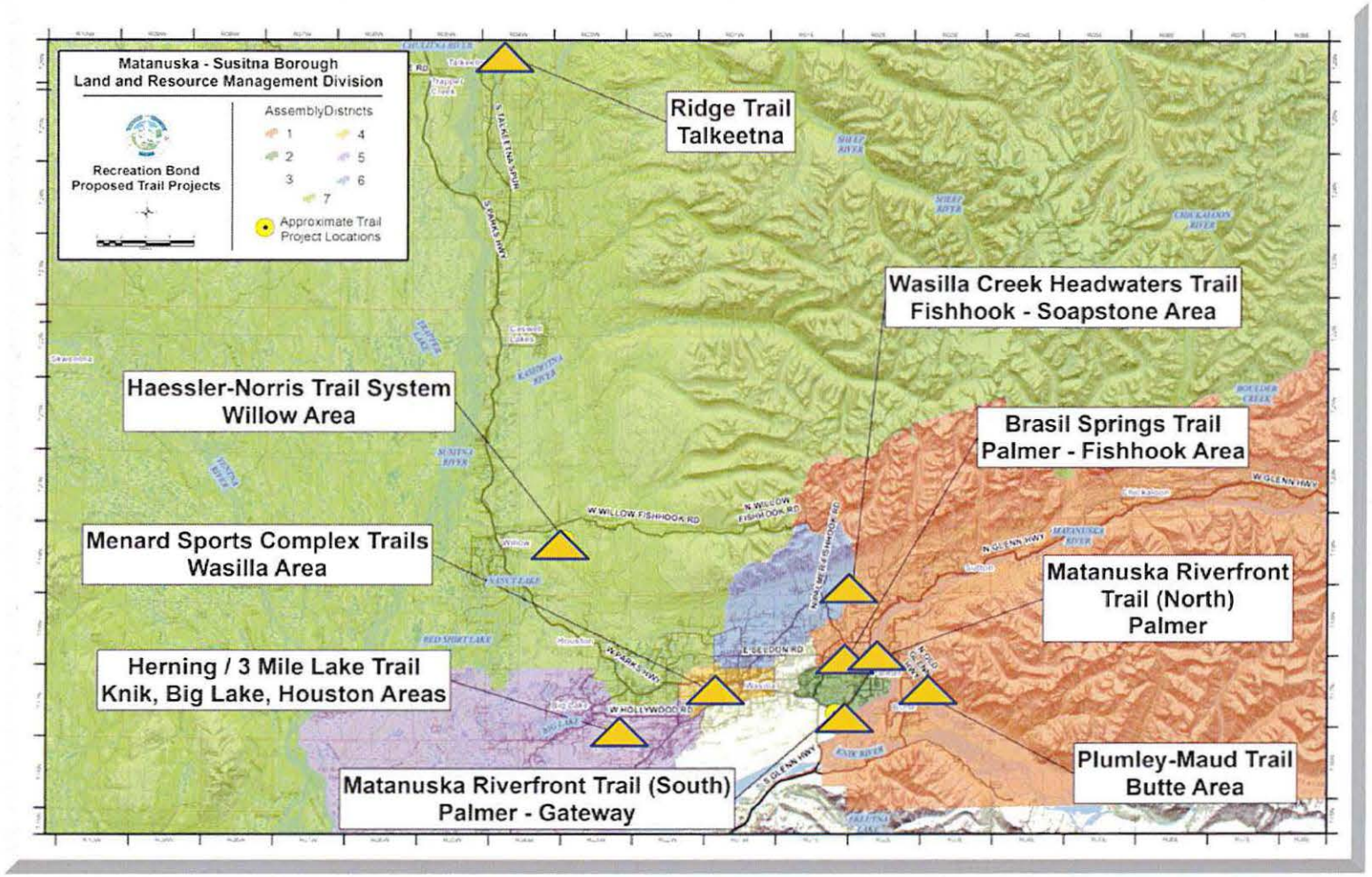


Trails

- 2/3 of all MSB Community Survey Respondents use MSB Recreation Trails (2014 MSB Community Survey)
- Selected nine trail projects with strong community support
- Emphasis on critical maintenance of longer trail segments
- Represent all trail user groups with projects dispersed throughout the Borough



Trails


Matanuska - Susitna Borough
Land and Resource Management Division
Recreation Bond
Proposed Trail Projects
AssemblyDistricts
1
2
3
4
5
6
7
Approximate Trail
Project Locations
Ridge Trail
Talkeetna
Wasilla Creek Headwaters Trail
Fishhook - Soapstone Area
Haessler-Norris Trail System
Willow Area
Brasil Springs Trail
Palmer - Fishhook Area
Menard Sports Complex Trails
Wasilla Area
Matanuska Riverfront
Trail (North)
Palmer
Herning / 3 Mile Lake Trail
Knik, Big Lake, Houston Areas
Plumley-Maud Trail
Butte Area
Matanuska Riverfront Trail (South)
Palmer - Gateway

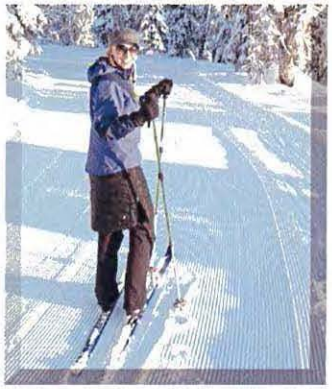
Trail Projects

Ridge Trial - Natural surface, multi-use	$ 340,000
Wasilla Creek Headwaters Trail Natural surface, multi-use	$ 500,000
Menard Sports Complex Trail System Natural surface, pedestrian	$ 150,000
Plumley-Maud – Natural surface, multi-use	$ 250,000
Matanuska Riverfront Trail North Natural surface, pedestrian	$ 150,000
Matanuska Riverfront Trail South Natural surface, pedestrian	$ 100,000
Brasil Springs to Crevasse Morraine Natural surface, pedestrian	$ 150,000
Haessler-Norris Trail System Reroutes Winter, multi-use	$ 285,000
Herning Trail - Winter, multi-use	$ 250,000
Total	**$ 2,175,000**

Recreation Bond Summary

Palmer & Wasilla Pools	$ 11,880,389*
Brett Memorial Ice Arena	$ 3,744,649
Trails	$ 2,175,000
TOTAL BOND PACKAGE	$ 17,800,038

*Pool estimate will require update as numbers from 2013 were only good for two years



Amortized Annual Cost to Homeowner

$34.59/year*

(For a $218,000 home)

$2.88/month

*based on 2016 fiscal year tax rate


INCORPORATED
1964
ALASKA
MATANUSKA
SUSITNA
BOROUGH
SEAL

MATANUSKA-SUSITNA BOROUGH
BRETT MEMORIAL ICE ARENA
ASSESSMENT

LOCAL EXPERIENCE

PROJECT ARCHITECT – WOLF ARCHITECTURE, INC.
STRUCTURAL ENGINEER – OIEN & ASSOCIATES
MECHANICAL/ELECTRICAL ENGINEERS – RSA ENGINEERING

NATIONAL EXPERIENCE

MARKET / OPERATIONAL ANALYSIS – BALLARD*KING
ICE ARENA DESIGNER – 292 DESIGN GROUP
ICE / REFRIGERATION SYSTEMS – STEVENS ENGINEERS

SCOPE OF STUDY

1. Market and Operation Analysis

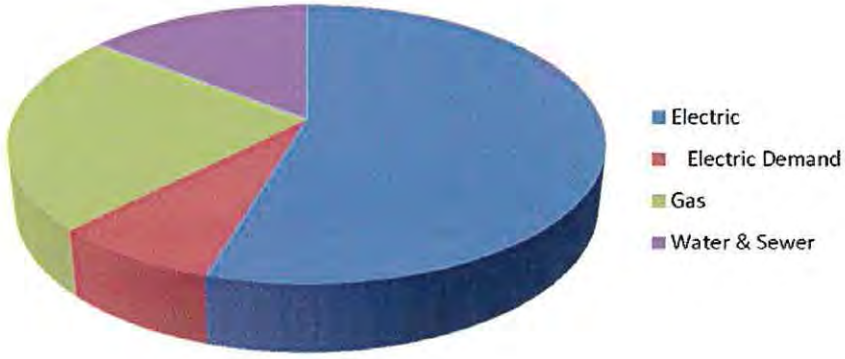
a. Market Analysis
b. Operations Analysis

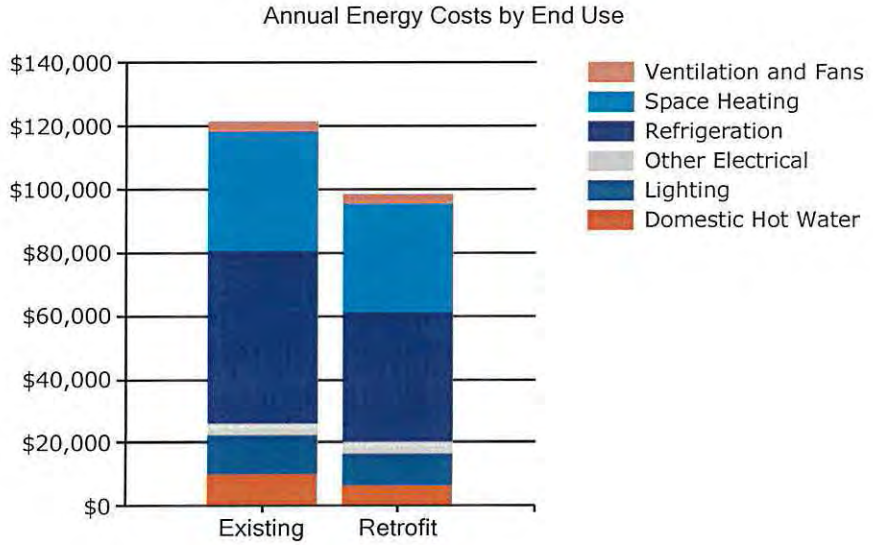
2. Existing Building Evaluation

a. Code Analysis
b. ADA Analysis
c. Architectural Review
d. Structural Review
e. Mechanical Review
f. Electrical Review
g. Refrigeration/Ice Systems Review
h. Energy Audit

3. Future Program Development

a. Program
b. Concepts





SUMMARY OF RECOMMENDATIONS

1. Priority Code Recommendations

a. Components out of compliance with the International Building Code and Fire/Life Safety Regulations.
b. Items take precedence for safety in public facility.

2. General Building Improvements and Maintenance

a. Important in the maintenance of the building
b. Energy efficiency improvements
c. Potential savings reduces the operating costs of the facility

3. Ice System Improvements

a. Options for improving or replacing the refrigeration system
b. Existing refrigerant and systems are being phased out
c. Converting existing refrigeration system
d. Replace refrigeration system with higher efficiency system

1. PRIORITY CODE RECOMMENDATIONS

MSB Brett Memorial Rink Assessment 7/25/2014

#	Description	Reference	Page	Cost	Savings	Payback(yrs)	Timeframe
Priority Code Renovations							
1	Perimeter Clearing	Code		$35,040			ASAP
	Foundation Waterproofing, Exterior	Struct		$13,800			
	Foundation wall base	Arch/Energy		See item 30 below			
	Gutters at North	Arch		$3,520			
2	Electric Service combustible Shed, demo and replace	Code		$5,400			ASAP
3	Combustible Construction - Demo	Code		$4,200			ASAP
	New non-combustible Concessions and Storage			$150,000			
	ADA Concession Counter	ADA		$1,250			
	Replace Concession Piping	Mech		$5,000			
4	Refrigeration Room Coiling Door	Code		$500			ASAP
5	Infrared Heaters, Seismic Restraint	Struct		$2,500			ASAP
6	Handrails at Stairs, Intermediate	Code		$7,500			ASAP
7	Refrigeration Equipment Room Ventilation	Mech		$5,500			ASAP
	Subtotal Priority Code Renovations			**$234,210**			
	Including 10% Contingency		10%	**$257,631**			

2. GENERAL IMPROVEMENTS & MAINTENANCE

MSB Brett Memorial Rink Assessment 7/25/2014

#	Description	Reference	Page	Cost	Savings	Payback(yrs)	Timeframe
General Building Improvements							
8	Vending Machines, contract for Occupancy Sensor	Energy		$150	$363	0.4	
9	Metal Siding, North at gas flues	Arch		$1,500			
10	Skate Sharpening ventilation	Mech		$1,500			
11	Flashing at Roof, replace	Arch		$7,500			
12	Refrigeration Heat Recovery	Mech/Energy		$70,000	$3,500		
13	Foundation Waterproofing, interior	Struct		$33,000			
14	Light Fixtures, replace metal halide with flourescent	Elect/Energy		$3,500	$1,429	2.4	
15	Exterior Light Fixtures, replace sodium with LEDs	Elect/Energy		$450	$142	3.2	
16	Light Fixtures, replace Locker Room cans with flourescent	Elect/Energy		$275	$51	5.4	
17	Electric Heater at Locker Room, replace with hydronic	Mech/Energy		$4,500	$750	6	
18	Boiler, Admin Radiant Floor - replace w/ high efficiency	Mech/Energy		$16,500	$2,500	7	
19	Exterior Light Fixtures, replace MH cans with LEDs	Elect/Energy		$450	$31	14.7	
20	Water Heater AO Smith, corrosion - replace	Mech		$10,000			2016
21	Zamboni Water Heaters, replace with St. Steel	Mech		$25,000			
22	Admin and Locker Ventilation, HRV	Mech		$15,500	$500	31	
23	Infrared Heaters, nearing end of life expectancy	Mech		$115,000			2017
24	Roof - replace	Arch/Energy		$324,265	$2,006	162	2018
25	Metal Siding, North dents and damage	Arch		$33,000			
26	Admin panelized siding	Arch		$14,784			
27	Interior wall repair at Zamboni Room	Arch		$1,850			
28	Fire Alarm Panel end of life, replace with EST-3x	Elect		$7,500			
29	Foundation Insulation, Interior	Energy		$86,526	$968	90	
30	Foundation Insulation, Exterior	Energy		$3,056	$12	255	
	Subtotal General Building Improvements			**$775,806**	**$12,252**		
	Including 10% Contingency		10%	**$853,387**			
	Subtotal Priority Code Renovations & General Building Improvements			**$1,111,018**			

3. ICE SYSTEM IMPROVEMENTS

MSB Brett Memorial Rink Assessment 7/25/2014

#	Description	Reference	Page	Cost	Savings	Timeframe
Ice Systems Improvements					$54,825	2020
	Option 2, Improve Existing System			$540,800	$11,237	
	Option 3, Convert exist R22			$1,777,000	$11,237	
	Option 4, New HFC Commercial			$1,633,000	$13,978	
	Option 5, New HFC Industrial			$1,763,000	$13,978	
	Option 6, New Ammonia Industrial			$1,936,000	$15,623	
	Option 7a, CO2 Indirect			$2,289,600	$18,364	
	Option 7b, CO2 Direct			$2,376,000	$22,202	
	Total All Improvements, Option 2			**$1,651,818**	$23,489	
	Total All Improvements, Option 7b			**$3,487,018**	$34,454	

Note: The above rough costs are preliminary and for the purpose of prioritizing the Improvements Recommendations.
Costs include a basic 10% Contingency at the Subtotals.
Other than the Ice Systems Improvements, rough costs do not include Design costs.

Palmer and Wasilla
Pool Assessment and Study
Executive Summary

Architects Alaska
Contact: David Moore
191 E. Swanson Ave, Suite 203
Wasilla, AK 99654
(907) 373 7503

COUNSILMAN · HUNSAKER
The Ultimate Aquatic Advantage

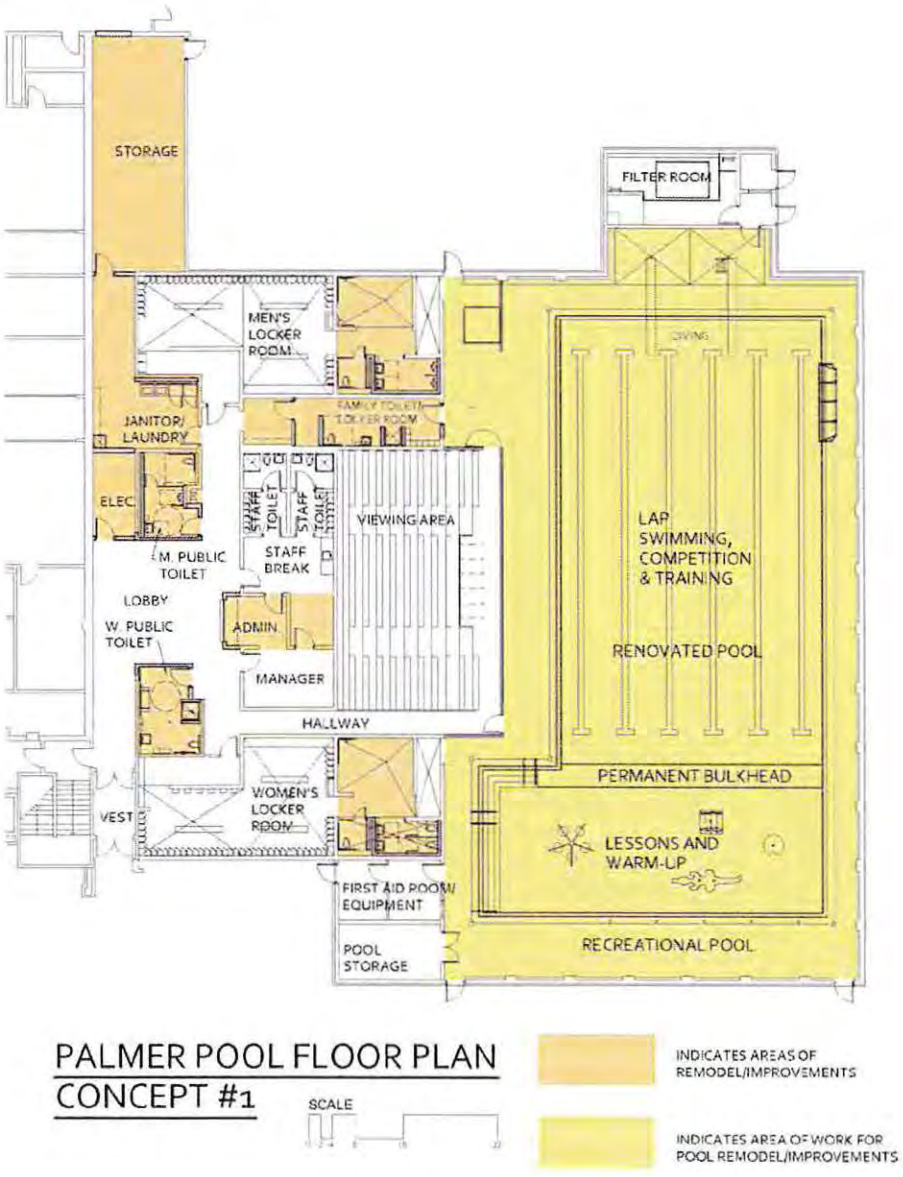
Contact: Paul Graves
4445 Overland Ave
Culver City, CA 90230
(310) 734 2282

Section 1: Palmer High School Pool

Options for Consideration

The consultant developed a menu of options that can be considered to address specific operating improvement opportunities for Palmer High School Pool.

Option 1 – Add recreation value



Pool

- Pool repairs and natatorium upgrades including a concrete bulkhead, stair entry, play element, floatables, and a climbing wall.

Building

- Repair and replace finishes identified in condition surveys
- Corrective work for life safety and accessibility code requirements
- Add public restroom

- New family changing areas

Mechanical Items

- AHU-1 (natatorium): 30,000 CFM.
- AHU-2 (rest of building): 10,000 CFM.
- EF-1 (natatorium): 33,000 CFM.
- EF-2 (rest of building): 7,000 CFM.
- Heat recovery (run around loop): 30 GPM pump, heat recovery coil at EF-1, heat rejection coil at AHU-1.
- Heat recovery (run around loop): 8 GPM pump, heat recovery coil at EF-2, heat rejection coil at AHU-2.
- Reuse the 3 Triangle Tube Phase III indirect-fired water heaters that provide domestic hot water and HWC pump.
- Reuse the heat exchanger that heats the pool water.
- Reuse & upgrade (add to) natatorium ductwork. Assume painted, galvanized steel will match existing.
- Replace other ductwork.
- Replace piping.
- All new pipe and duct insulation.
- Wet pipe fire sprinkler system is needed.
- Minor control system upgrade.

Electrical Items

- New electrical distribution panels & equipment to serve pool/natatorium & new mechanical equipment.
- Locate electrical distribution equipment in new electrical room.
- New lighting in new pool/natatorium area.
- New electrical power (receptacles/misc. equipment) in new pool/natatorium area.
- New grounding system to new pool equipment, fixtures, apparatus in pool/natatorium area.
- New Telecom distribution to pool/natatorium and renovated/new Admin and Staff areas.
- New pool sound system.
- New pool competition timing system.
- New fire alarm system devices, appliances and panels as required in renovated pool areas - reconnect to existing fire alarm system serving the school.
- New lighting and power (receptacles/misc. equipment) in other misc. renovated areas (as indicated on architectural concept drawing): Admin., Family Toilet/Locker room, Janitor/Laundry, misc. toilets, Storage, partial Men's locker room & partial Women's locker room.
- New exit signs and emergency lighting as required in renovated/new interior areas.
- Provide associated demolition and new electrical work and motor starters/controllers for the following new mechanical equipment (refer also to mechanical items/narrative):
    - New AHU-1. (natatorium).
    - New AHU-2 (rest of building).
    - New EF-1 (natatorium).
    - New EF-2 (rest of building).
    - New Heat recovery (run around loop) pump.
    - New Heat recovery (run around loop) pump.

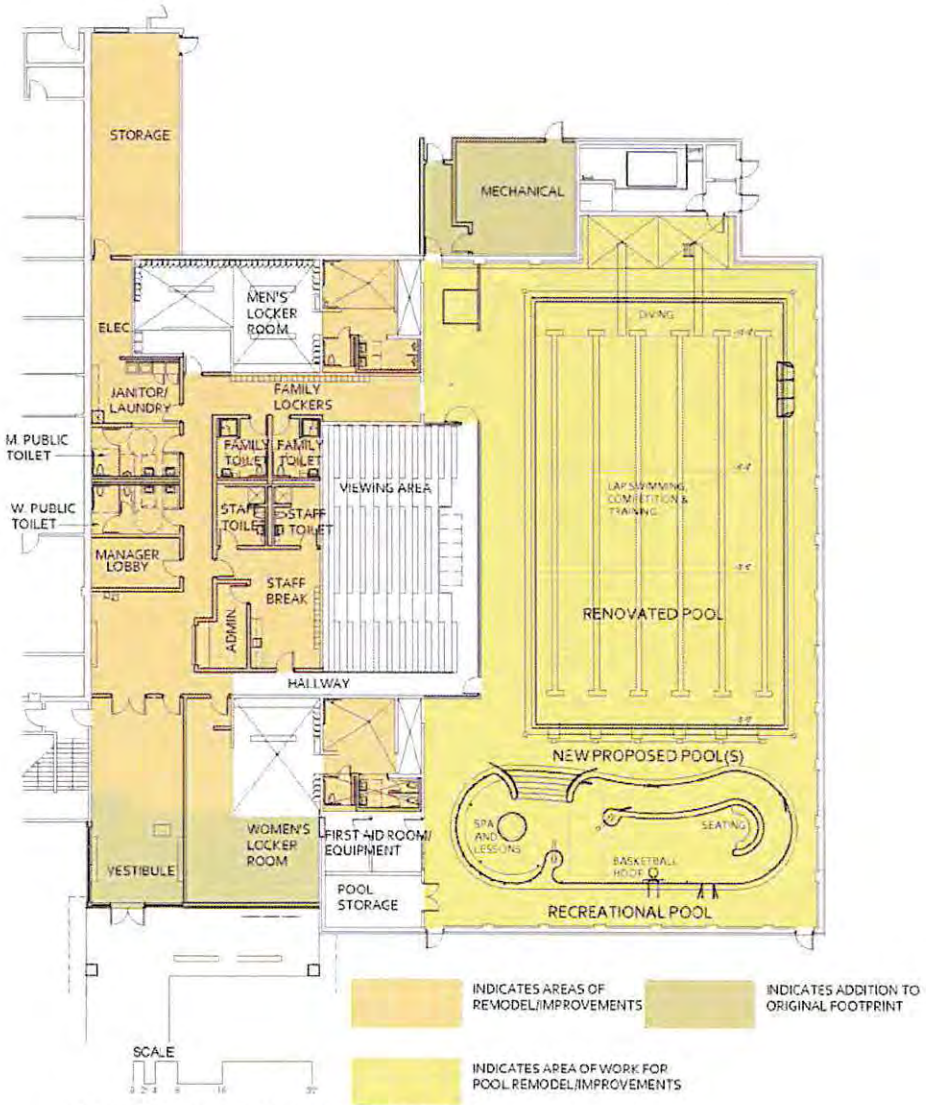
CONCEPT 1

CONCEPTUAL DESIGN COST SUMMARY

01 - SITE WORK	$ 81,167
02 - SUBSTRUCTURE	0
03 - SUPERSTRUCTURE	0
04 - EXTERIOR CLOSURE	16,064
05 - ROOF SYSTEMS	431,060
06 - INTERIOR CONSTRUCTION	250,529
07 - CONVEYING SYSTEMS	0
08 - MECHANICAL	888,718
09 - ELECTRICAL	543,529
10 - EQUIPMENT	27,780
11 - SPECIAL CONSTRUCTION (POOL)	1,414,875
SUBTOTAL:	*$ 3,653,722*
12 - GENERAL REQUIREMENTS	913,431
SUBTOTAL:	*$ 4,567,153*
13 - CONTINGENCIES	960,815
TOTAL ESTIMATED CONSTRUCTION COST:	***$ 5,527,968***

Source: HMS Inc.

Option 2 – Replace lap pool and add leisure pool within existing natatorium space



PALMER POOL FLOOR PLAN
CONCEPT #2

Pool

- This option includes a new 6-lane competition pool, two springboards, 1,050-sq.ft. leisure pool, a current channel, and a play element.

Building

- Repair and replace finishes identified in condition surveys
- Corrective work for life safety and accessibility code requirements
- Remodel lobby/locker room to improve control

Mechanical Items

- AHU-1 (natatorium): 30,000 CFM.
- AHU-2 (rest of building): 11,000 CFM.
- EF-1 (natatorium): 33,000 CFM.
- EF-2 (rest of building): 8,000 CFM.

- Heat recovery (run around loop): 30 GPM pump, heat recovery coil at EF-1, heat rejection coil at AHU-1.
- Heat recovery (run around loop): 9 GPM pump, heat recovery coil at EF-2, heat rejection coil at AHU-2.
- Reuse the 3 Triangle Tube Phase III indirect-fired water heaters that provide domestic hot water and HWC pump.
- Reuse the heat exchanger that heats the pool water.
- New 500 MBH heat exchanger to heat the new pool.
- Boilers BLR-1, -2, -3: three high efficiency Aerco Benchmark BMK 2.0 boilers (2000 MBH input each).
- PMP-1, -2: 350 GPM building heating pumps on VSDs.
- Other hydronic equipment (air separator, expansion tanks, etc.) for complete system.
- Replace all ductwork.
- Replace piping.
- All new pipe and duct insulation.
- Wet pipe fire sprinkler system is needed.
- Control system upgrade.

Electrical Items

- Provide new electrical area/room
- New electrical distribution panels & equipment to serve pool/natatorium & new mechanical equipment.
- Locate Electrical distribution equipment in new electrical room.
- New lighting in new pool/natatorium area.
- New electrical power (receptacles/misc. equipment) in new pool/natatorium area.
- New grounding system to new pool equipment, fixtures, apparatus in pool/natatorium area.
- New Telecom distribution to pool/natatorium and renovated/new Admin and Staff areas.
- New pool sound system.
- New pool competition timing system.
- New fire alarm system devices, appliances and panels as required in renovated and new pool areas - reconnect to existing fire alarm system serving the school.
- New lighting and power (receptacles/misc. equipment) in other Misc. renovated areas (as indicated on Arch concept drawing): Admin., Family Toilet/Locker room, Janitor/Laundry, Misc. toilets, Storage, partial Men's locker room & partial Women's locker room, Lobbies, Staff/Staff break room & other Toilets.
- New lighting and power (receptacles/misc. equipment) in new additions/areas (as indicated on Arch concept drawing): partial Women's locker room, Vestibule, Mechanical room.
- New exit signs and emergency lighting as required in renovated/new interior areas.
- Provide associated demolition and new electrical work and motor starters/controllers for the following new mechanical equipment (refer also to mechanical items/narrative):
    - New AHU-1. (natatorium).
    - New AHU-2 (rest of building).
    - New EF-1 (natatorium).
    - New EF-2 (rest of building).
    - New Heat recovery (run around loop) pump.
    - New Heat recovery (run around loop) pump.
    - New Boilers BLR-1, -2, -3:
    - New PMP-1, -2 & VSDs.

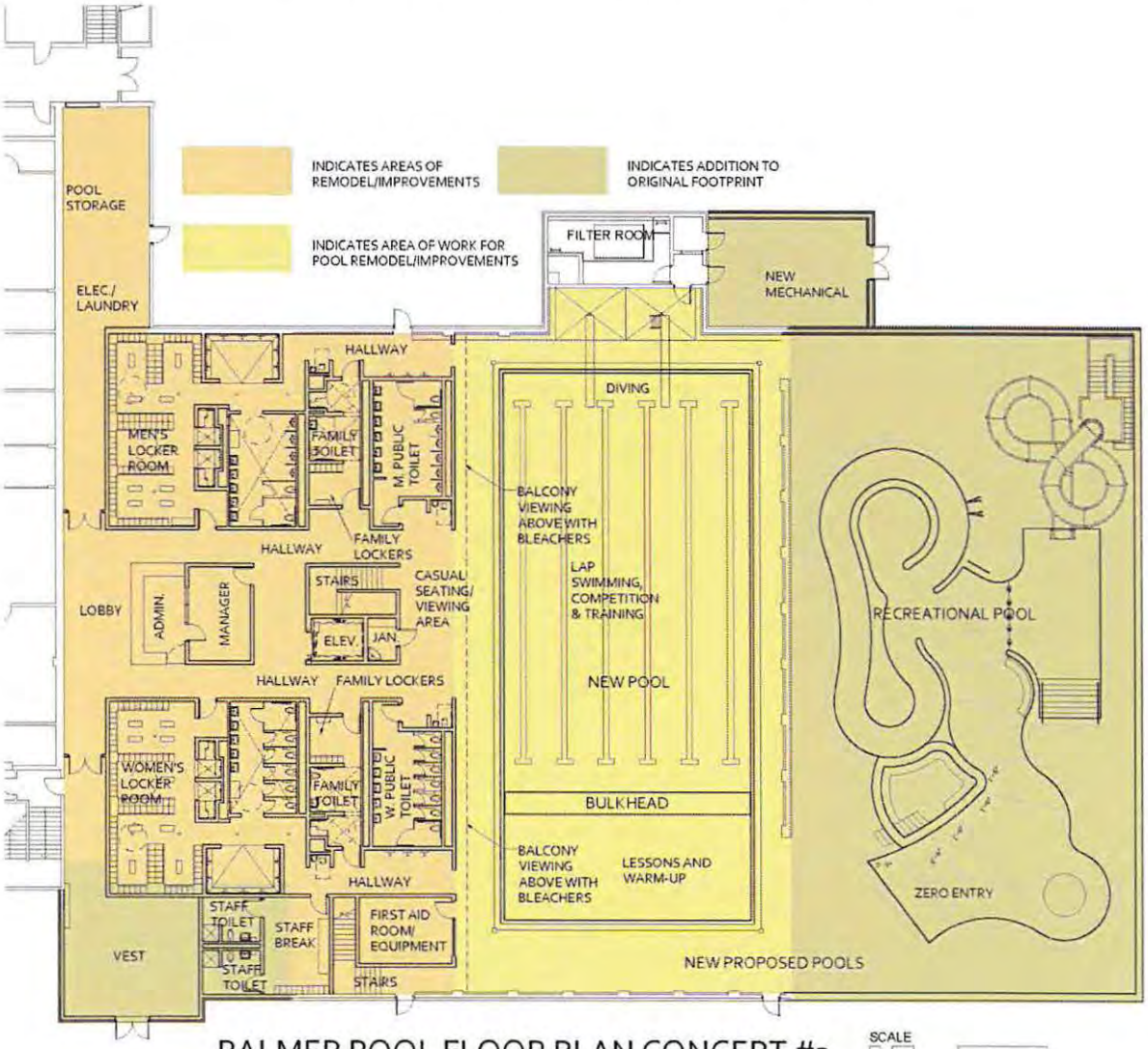
CONCEPT 2

CONCEPTUAL DESIGN COST SUMMARY

01 - SITE WORK	$ 138,813
02 - SUBSTRUCTURE	52,219
03 - SUPERSTRUCTURE	59,073
04 - EXTERIOR CLOSURE	87,352
05 - ROOF SYSTEMS	495,264
06 - INTERIOR CONSTRUCTION	438,669
07 - CONVEYING SYSTEMS	0
08 - MECHANICAL	1,153,879
09 - ELECTRICAL	558,497
10 - EQUIPMENT	27,780
11 - SPECIAL CONSTRUCTION (POOL)	1,332,500
SUBTOTAL:	*$ 4,344,046*
12 - GENERAL REQUIREMENTS	1,086,012
SUBTOTAL:	*$ 5,430,058*
13 - CONTINGENCIES	1,142,349
TOTAL ESTIMATED CONSTRUCTION COST:	***$ 6,572,407***

Source: HMS Inc.

Option 3 – Replace lap pool and expand natatorium to include a leisure pool



PALMER POOL FLOOR PLAN CONCEPT #3

Pool

- This option includes a new stretch competition pool, two springboards, bulkhead, and a 3,060-sq.ft. leisure pool.

Building

- Repair and replace finishes identified in condition surveys
- Corrective work for life safety and accessibility code requirements
- Building addition for leisure pool and supporting mechanical equipment
- Remodel/expand lobby/locker rooms as required for increase in users
- Add mezzanine viewing and maximize available seating

Mechanical Items

- New AHU-1 (natatorium): 50,000 CFM.
- New AHU-2 (rest of building): 15,000 CFM.
- New EF-1 (natatorium): 55,000 CFM.
- New EF-2 (rest of building): 10,000 CFM.

- New Heat recovery (run around loop): 35 GPM pump, heat recovery coil at EF-1, heat rejection coil at AHU-1.
- New Heat recovery (run around loop): 15 GPM pump, heat recovery coil at EF-2, heat rejection coil at AHU-2.
- Reuse the 3 Triangle Tube Phase III indirect-fired water heaters that provide domestic hot water and HWC pump. Add a 4th unit to the system.
- Reuse the heat exchanger that heats the pool water.
- New 1200 MBH heat exchanger to heat the new pool.
- Boilers BLR-1, -2, -3: three high efficiency Aerco Benchmark BMK 2.0 boilers (2000 MBH input each).
- PMP-1, -2: 450 GPM building heating pumps on VSDs.
- Other hydronic equipment (air separator, expansion tanks, etc.) for complete system.
- New ductwork. Make sure natatorium ductwork is priced as aluminum (AHU-1, EF-1).
- New piping.
- New plumbing fixtures.
- New pipe and duct insulation.
- Wet pipe fire sprinkler system is needed.
- New control system.

Electrical Items

- Provide new electrical area/room
- New electrical distribution panels & equipment to serve all pool and natatorium areas & new mechanical equipment.
- Locate Electrical distribution equipment in new electrical room.
- New lighting in all areas.
- New exit signs and emergency lighting as required in all interior areas.
- New lighting controls
- New electrical power (receptacles/misc. equipment) in all areas.
- New grounding system to all new electrical, mechanical, equipment pool equipment, fixtures and apparatus.
- New Telecom distribution system to all areas.
- New pool sound system.
- New pool competition timing system.
- New fire alarm system devices, appliances and panels as required in all pool areas - reconnect to existing fire alarm system serving the school.
- Provide associated demolition and new electrical work and motor starters/controllers for the following new mechanical equipment (refer also to mechanical items/narrative):
    - New AHU-1. (natatorium).
    - New AHU-2 (rest of building).
    - New EF-1 (natatorium).
    - New EF-2 (rest of building).
    - New Heat recovery (run around loop) pump.
    - New Heat recovery (run around loop) pump.
    - New Boilers BLR-1, -2, -3:
    - New PMP-1, -2 & VSDs.

CONCEPT 3

CONCEPTUAL DESIGN COST SUMMARY

01 - SITE WORK	$ 309,807
02 - SUBSTRUCTURE	131,935
03 - SUPERSTRUCTURE	388,103
04 - EXTERIOR CLOSURE	229,239
05 - ROOF SYSTEMS	757,400
06 - INTERIOR CONSTRUCTION	844,498
07 - CONVEYING SYSTEMS	68,280
08 - MECHANICAL	1,562,268
09 - ELECTRICAL	807,398
10 - EQUIPMENT	18,500
11 - SPECIAL CONSTRUCTION (POOL)	2,589,950
SUBTOTAL:	*$ 7,707,378*
12 - GENERAL REQUIREMENTS	1,926,845
SUBTOTAL:	*$ 9,634,223*
13 - CONTINGENCIES	2,026,799
TOTAL ESTIMATED CONSTRUCTION COST:	***$ 11,661,022***

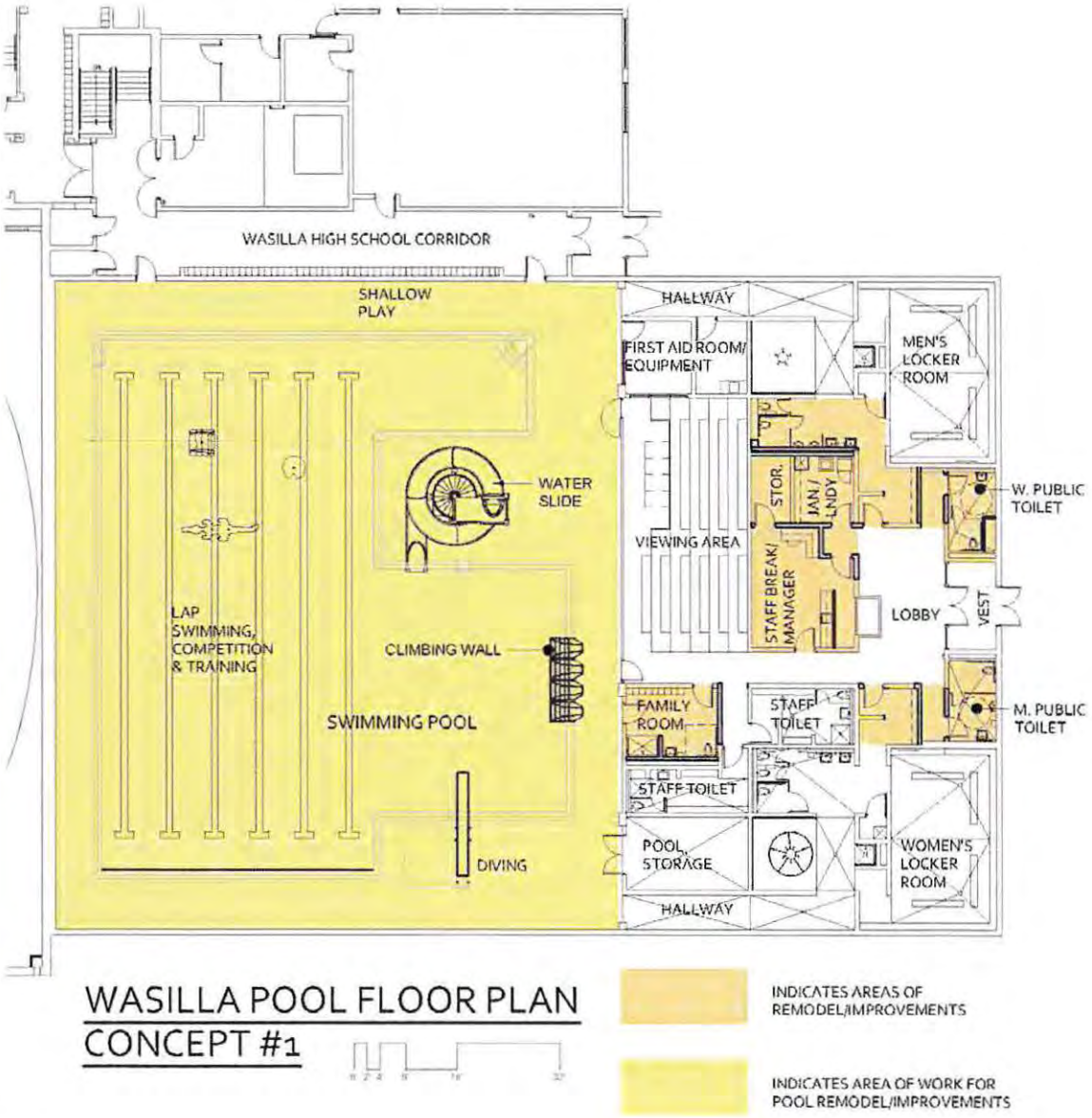
Source: HMS Inc.

Section 2: Wasilla High School Pool

Options for Consideration

The consultant developed a menu of options that can be considered to address specific operating improvement opportunities for Wasilla High School Pool.

Option 1 – Add recreation value



Pool

- This option includes pool repairs and natatorium upgrades including a waterslide, three floatables, and climbing wall.

Building

- Repair and replace finishes identified in condition surveys
- Corrective work for life safety and accessibility code requirements
- Add public restroom
- New family changing area

Mechanical Items

- New AHU-1 (natatorium): 27,000 CFM.
- New AHU-2 (rest of building): 10,000 CFM.
- New EF-1 (natatorium): 30,000 CFM.
- New EF-2 (rest of building): 7,000 CFM.
- New Heat recovery (run around loop): 25 GPM pump, heat recovery coil at EF-1, heat rejection coil at AHU-1.
- New Heat recovery (run around loop): 8 GPM pump, heat recovery coil at EF-2, heat rejection coil at AHU-2.
- Reuse the 3 Triangle Tube Phase III indirect-fired water heaters that provide domestic hot water and HWC pump.
- Reuse the heat exchanger that heats the pool water.
- Reuse & upgrade (add to) natatorium ductwork. Assume painted, galvanized steel will match existing.
- Replace other ductwork.
- Replace piping.
- All new pipe and duct insulation.
- Wet pipe fire sprinkler system is needed.
- Control system upgrade.

Electrical Items

- Provide new electrical area/room near Jan/Laundry & Storage rooms
- New electrical distribution panels & equipment to serve pool/natatorium & new mechanical equipment.
- Locate electrical distribution equipment in new/reconfigured electrical room.
- New lighting in pool/natatorium area (including Viewing area).
- New electrical power (receptacles/misc. equipment) in pool/natatorium area.
- New grounding system to pool equipment, fixtures, apparatus in pool/natatorium area.
- New Telecom distribution to pool/natatorium and renovated/new Admin and Staff areas.
- New pool sound system.
- New fire alarm system devices, appliances and panels as required in renovated pool areas - reconnect to existing fire alarm system serving the school.
- New lighting and power (receptacles/misc. equipment) in other Misc. renovated areas (as indicated on Arch concept drawing): Staff rooms, Jan/Laundry, Toilets, Storage, partial Men's locker room.
- New electrical distribution panel to replace existing MCC serving mechanical equipment which is located in Mezzanine. Mechanical room near the Auto Shop.
- New exit signs and emergency lighting as required in renovated/new interior areas.

- Provide associated demolition and new electrical work and motor starters/controllers for the following new mechanical equipment (refer also to Mechanical items/narrative):
    - New AHU-1. (natatorium).
    - New AHU-2 (rest of building).
    - New EF-1 (natatorium).
    - New EF-2 (rest of building).
    - New Heat recovery (run around loop) pump.
    - New Heat recovery (run around loop) pump.

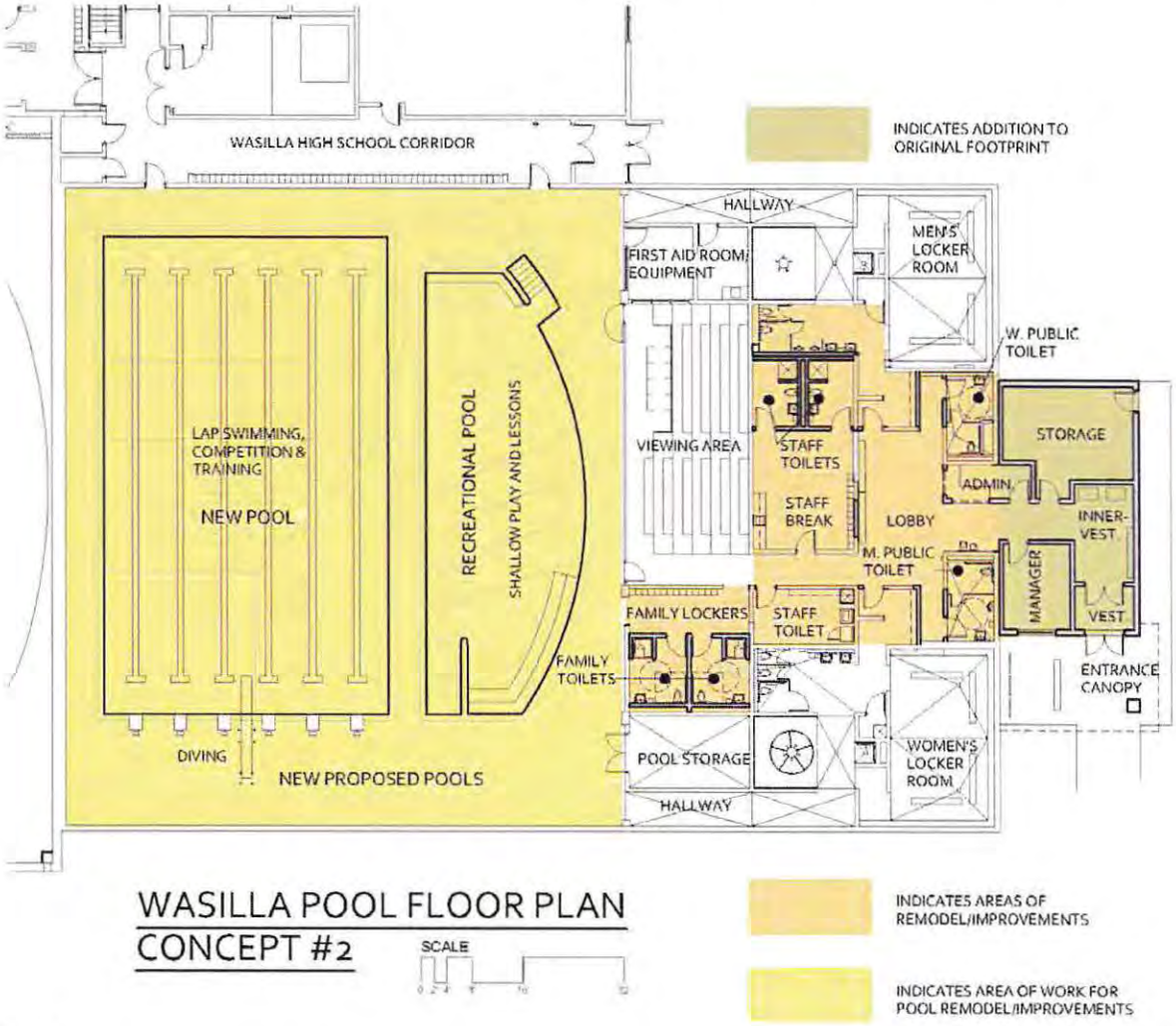
CONCEPT 1

CONCEPTUAL DESIGN COST SUMMARY

01 - SITE WORK	$ 35,223
02 - SUBSTRUCTURE	0
03 - SUPERSTRUCTURE	0
04 - EXTERIOR CLOSURE	6,900
05 - ROOF SYSTEMS	12,816
06 - INTERIOR CONSTRUCTION	213,266
07 - CONVEYING SYSTEMS	0
08 - MECHANICAL	738,270
09 - ELECTRICAL	372,852
10 - EQUIPMENT	23,140
11 - SPECIAL CONSTRUCTION (POOL)	1,048,188
SUBTOTAL:	*$ 2,450,655*
12 - GENERAL REQUIREMENTS	612,664
SUBTOTAL:	*$ 3,063,319*
13 - CONTINGENCIES	644,446
TOTAL ESTIMATED CONSTRUCTION COST:	***$ 3,707,765***

Source: HMS Inc.

Option 2 – Replace lap pool and add leisure pool within existing natatorium space



Pool

- This option includes a new 6-lane competition pool, one springboard, a 1,600-sq.ft. leisure pool, and bench seating.

Building

- Repair and replace finishes identified in condition surveys
- Corrective work for life safety and accessibility code requirements
- Remodel lobby/locker room to improve control
- Provide two family changing areas
- Complete mechanical system upgrades to current codes and standards
- Upgrade power and lighting systems to current code requirements

Mechanical Items

- New AHU-1 (natatorium): 27,000 CFM.
- New AHU-2 (rest of building): 12,000 CFM.

- New EF-1 (natatorium): 30,000 CFM.
- New EF-2 (rest of building): 9,000 CFM.
- New Heat recovery (run around loop): 25 GPM pump, heat recovery coil at EF-1, heat rejection coil at AHU-1.
- New Heat recovery (run around loop): 10 GPM pump, heat recovery coil at EF-2, heat rejection coil at AHU-2.
- Reuse the 3 Triangle Tube Phase III indirect-fired water heaters that provide domestic hot water and HWC pump.
- Reuse the heat exchanger that heats the pool water.
- New 750 MBH heat exchanger to heat the new pool.
- Boilers BLR-1, -2, -3: three high efficiency Aerco Benchmark BMK 2.0 boilers (2000 MBH input each).
- PMP-1, -2: 350 GPM building heating pumps on VSDs.
- Other hydronic equipment (air separator, expansion tanks, etc.) for complete system.
- Replace all ductwork.
- Replace piping.
- All new pipe and duct insulation.
- Wet pipe fire sprinkler system is needed.
- Control system upgrade.

Electrical Items

- Provide new electrical area/room.
- New electrical distribution panels & equipment to serve pool/natatorium & new mechanical equipment.
- Locate electrical distribution equipment in new/reconfigured electrical room.
- New lighting in pool/natatorium area (including Viewing area).
- New electrical power (receptacles/misc. equipment) in pool/natatorium area.
- New grounding system to pool equipment, fixtures, apparatus in pool/natatorium area.
- New Telecom distribution to pool/natatorium and renovated/new Admin and Staff areas.
- New pool sound system.
- New fire alarm system devices, appliances and panels as required in renovated and new pool areas - reconnect to existing fire alarm system serving the school.
- New lighting and power (receptacles/misc. equipment) in other Misc. renovated areas (as indicated on Arch concept drawing): Staff rooms, Lobby, Family Lockers, Jan/Laundry, Toilets, Storage, partial Men's locker room.
- New lighting and power (receptacles/misc. equipment) in new additions/areas (as indicated on Arch concept drawing): Vest/Inner Vest., Manger, Storage.
- New electrical distribution panel to replace existing MCC serving mechanical equipment which is located in Mezzanine. mechanical room near the Auto Shop.
- New exit signs and emergency lighting as required in renovated/new interior areas.
- Provide associated demolition and new electrical work and motor starters/controllers for the following new mechanical equipment (refer also to mechanical items/narrative):
    - New AHU-1. (natatorium).
    - New AHU-2 (rest of building).
    - New EF-1 (natatorium).
    - New EF-2 (rest of building).

- New Heat recovery (run around loop) pump.
- New Heat recovery (run around loop) pump.
- New Boilers BLR-1, -2, -3:
- New PMP-1, -2 & VSDs.

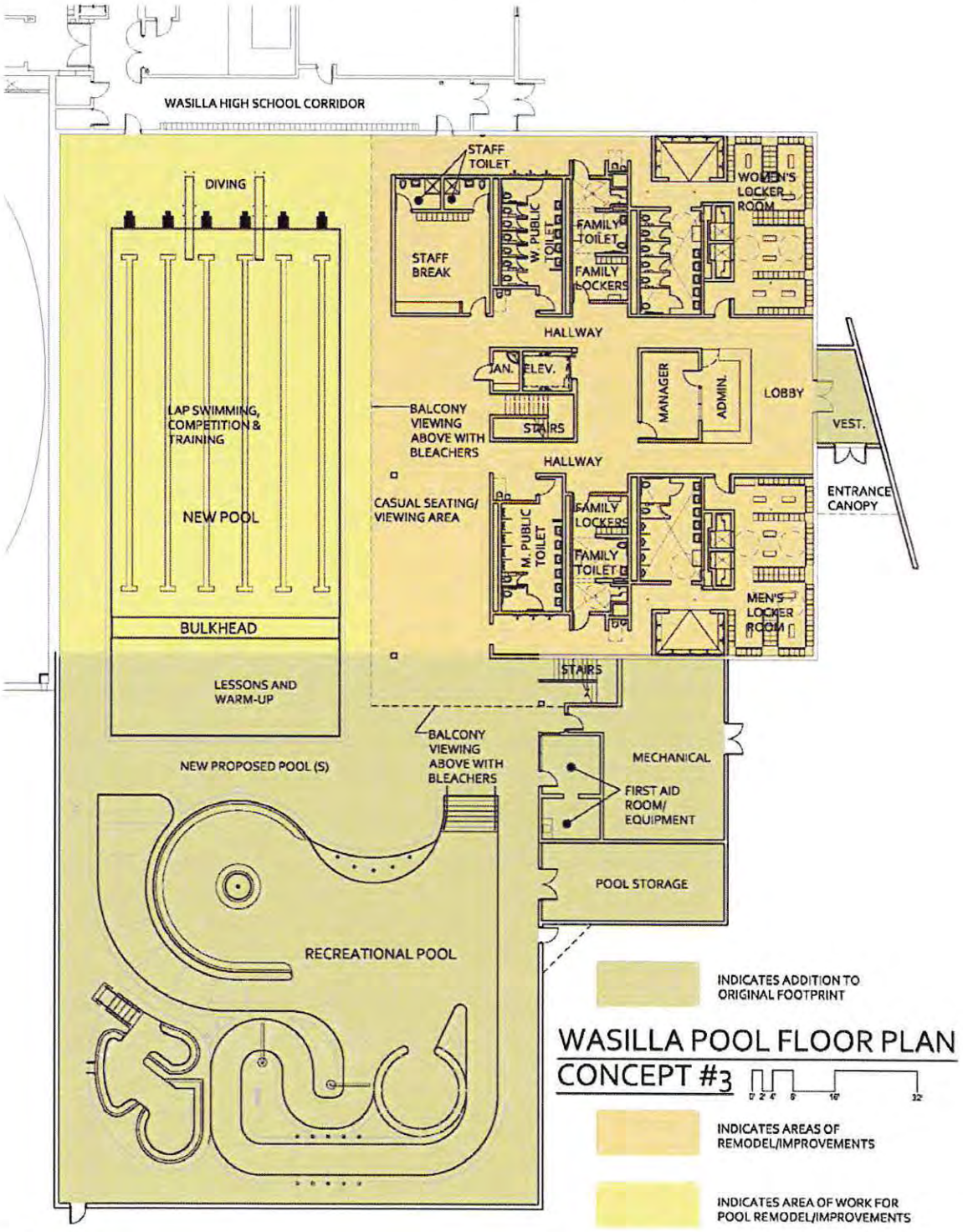
CONCEPT 2

CONCEPTUAL DESIGN COST SUMMARY

01 - SITE WORK	$ 104,330
02 - SUBSTRUCTURE	48,805
03 - SUPERSTRUCTURE	36,036
04 - EXTERIOR CLOSURE	55,349
05 - ROOF SYSTEMS	29,189
06 - INTERIOR CONSTRUCTION	280,067
07 - CONVEYING SYSTEMS	0
08 - MECHANICAL	1,034,243
09 - ELECTRICAL	525,413
10 - EQUIPMENT	23,140
11 - SPECIAL CONSTRUCTION (POOL)	1,371,750
SUBTOTAL:	*$ 3,508,322*
12 - GENERAL REQUIREMENTS	877,081
SUBTOTAL:	*$ 4,385,403*
13 - CONTINGENCIES	922,579
TOTAL ESTIMATED CONSTRUCTION COST:	***$ 5,307,982***

Source: HMS Inc.

Option 3 – Replace lap pool and expand natatorium to include a leisure pool



Pool

- This option includes a stretch competition pool, two springboards, bulkhead, 10,200-sq.ft. leisure pool, current channel, play element, vortex, and a 450-sq.ft. whirlpool spa.

Building

- Repair and replace finishes identified in condition surveys
- Corrective work for life safety and accessibility code requirements
- Building addition for leisure pool and supporting mechanical equipment
- Remodel/expand lobby/locker rooms as required for increase in users
- Add mezzanine viewing and maximize available seating

Mechanical Items

- New AHU-1 (natatorium): 50,000 CFM.
- New AHU-2 (rest of building): 15,000 CFM.
- New EF-1 (natatorium): 55,000 CFM.
- New EF-2 (rest of building): 10,000 CFM.
- New Heat recovery (run around loop): 35 GPM pump, heat recovery coil at EF-1, heat rejection coil at AHU-1.
- New Heat recovery (run around loop): 15 GPM pump, heat recovery coil at EF-2, heat rejection coil at AHU-2.
- Reuse the 3 Triangle Tube Phase III indirect-fired water heaters that provide domestic hot water and HWC pump. Add a 4th unit to the system.
- Reuse the heat exchanger that heats the pool water.
- New 1500 MBH heat exchanger to heat the new pool.
- Boilers BLR-1, -2, -3: three high efficiency Aerco Benchmark BMK 2.0 boilers (2000 MBH input each).
- PMP-1, -2: 450 GPM building heating pumps on VSDs.
- Other hydronic equipment (air separator, expansion tanks, etc.) for complete system.
- New ductwork. Make sure natatorium ductwork is priced as aluminum (AHU-1, EF-1).
- New piping.
- New plumbing fixtures.
- New pipe and duct insulation.
- Wet pipe fire sprinkler system is needed.
- New control system.

Electrical Items

- Provide new electrical area/room.
- New electrical distribution panels & equipment to serve all pool and natatorium areas & new mechanical equipment.
- Locate Electrical distribution equipment in new electrical room
- New lighting in all areas.
- New exit signs and emergency lighting as required in all interior areas.
- New lighting controls
- New electrical power (receptacles/misc. equipment) in all areas.
- New grounding system to all new electrical, mechanical, equipment pool equipment, fixtures and apparatus.
- New Telecom distribution system to all areas.
- New pool sound system.

- New fire alarm system devices, appliances and panels as required in all pool areas - reconnect to existing fire alarm system serving the school.
- New electrical distribution panel to replace existing MCC serving mechanical equipment which is located in Mezzanine. mechanical room near the Auto Shop.
- Provide associated demolition and new electrical work and motor starters/controllers for the following new mechanical equipment (refer also to mechanical items/narrative):
    - New AHU-1. (natatorium).
    - New AHU-2 (rest of building).
    - New EF-1 (natatorium).
    - New EF-2 (rest of building).
    - New Heat recovery (run around loop) pump.
    - New Heat recovery (run around loop) pump.
    - New Boilers BLR-1, -2, -3:
    - New PMP-1, -2 & VSDs.

CONCEPT 3

CONCEPTUAL DESIGN COST SUMMARY

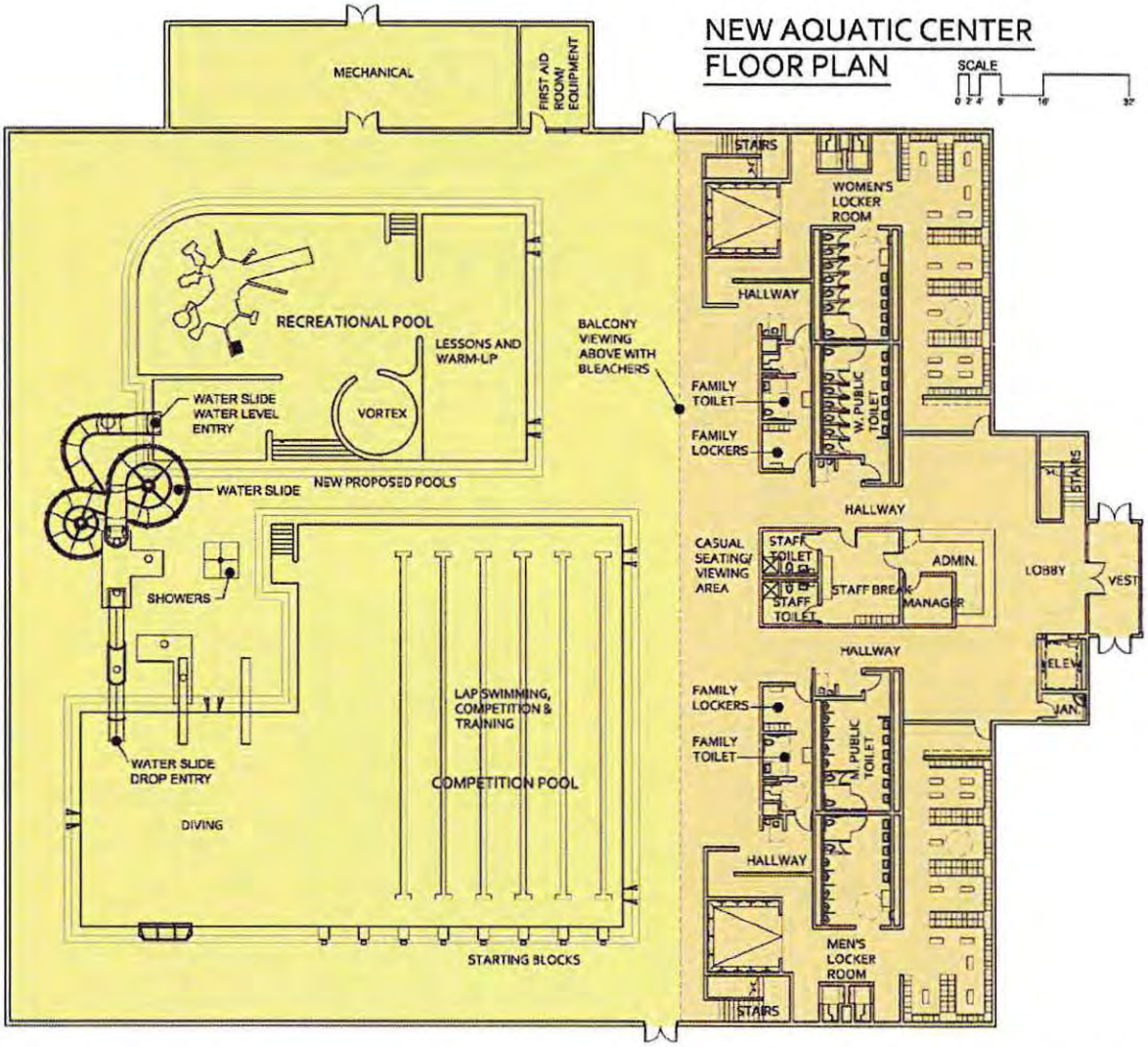
01 - SITE WORK	$ 182,741
02 - SUBSTRUCTURE	144,279
03 - SUPERSTRUCTURE	443,038
04 - EXTERIOR CLOSURE	388,049
05 - ROOF SYSTEMS	300,720
06 - INTERIOR CONSTRUCTION	622,704
07 - CONVEYING SYSTEMS	68,280
08 - MECHANICAL	1,580,818
09 - ELECTRICAL	880,997
10 - EQUIPMENT	18,500
11 - SPECIAL CONSTRUCTION (POOL)	2,926,000
SUBTOTAL:	*$ 7,556,126*
12 - GENERAL REQUIREMENTS	1,889,032
SUBTOTAL:	*$ 9,445,158*
13 - CONTINGENCIES	1,987,025
TOTAL ESTIMATED CONSTRUCTION COST:	***$ 11,432,183***

Source: HMS Inc.

Section 3: New Aquatic Center

Option for Consideration

New Aquatic Center



This option includes a new aquatics center at a new site with an eight lane competition pool, two springboards, a warm water leisure pool with, play elements, waterslide, and a whirlpool spa. Progamatically, the new aquatics center is modeled after the Ketchican Aquatic Center completed in 2012, which featured cast-in-place concrete foundation and floors, concrete block exterior walls with exterior insulation system, steel framed mezzanine and roof. Mechanial space and viewing areas are provided on the mezzanine level.

Areas:

- Main floor: 33,980 square feet

- Mezzanine: 10,875 square feet

Major Mechanical Items

- Assumption: Mechanical equipment & costs similar to Ketchikan Aquatic Center
- Assumption: Selected site has natural gas, water, sewer utilities
- AHU-1 (natatorium): 60,000 CFM.
- AHU-2 (rest of building): 20,000 CFM.
- EF-1 (natatorium): 50,000 CFM.
- RF-1: 10,000 CFM.
- SCF-1, -2, -3 (small cabinet fans): 5,000 CFM each.
- Boilers BLR-1, -2, -3: three high efficiency boilers (2000 MBH input each).
- Water Heaters WH-1, -2: two high efficiency water heaters (1350 MBH input each).
- 3 Brazed Plate Heat Exchangers.
- Automatic fire sprinkler system.

Major Electrical Items

- Assumption: Electrical equipment & costs similar to Ketchikan Aquatic Center
- New electrical service - local electrical utility = MEA.
- New telecom "service"- local telephone utility = MTA.
- Standby power generator.
- Site/parking exterior lighting.
- Pool sound system.
- Pool competition timing system.
- Fire alarm system including devices, appliances and panels as required in all pool areas.
- Provide electrical work and motor starters/controllers for the following new mechanical equipment (refer also to mechanical items/narrative):
    - AHU-1. (natatorium).
    - AHU-2 (rest of building).
    - EF-1 (natatorium).
    - RF-1.
    - Cabinet fans/Unit heaters.
    - Pumps.
    - Boilers BLR-1, -2, -3:

NEW POOL

CONCEPTUAL DESIGN COST SUMMARY

01 - SITE WORK	$ 776,150
02 - SUBSTRUCTURE	284,227
03 - SUPERSTRUCTURE	1,282,545
04 - EXTERIOR CLOSURE	768,430
05 - ROOF SYSTEMS	628,630
06 - INTERIOR CONSTRUCTION	1,293,638
07 - CONVEYING SYSTEMS	68,280
08 - MECHANICAL	2,212,622
09 - ELECTRICAL	1,358,374
10 - EQUIPMENT	18,500
11 - SPECIAL CONSTRUCTION	3,327,300
SUBTOTAL:	*$ 12,018,696*
12 - GENERAL REQUIREMENTS	3,004,674
SUBTOTAL:	*$ 15,023,370*
13 - CONTINGENCIES	3,765,233
TOTAL ESTIMATED CONSTRUCTION COST:	***$ 18,788,603***
COST PER SQUARE FOOT:	*$ 418.87 /SF*
TOTAL AREA:	*44,855 SF*

Source: HMS Inc.