

Proposed by:	Assemblyman Jay Burnham
Attorney Review:	03/27/2019
Vote:	6 Aye 0 Nay 0 Absent

**MUNICIPALITY OF SKAGWAY, ALASKA
RESOLUTION NO. 19-16R**

A RESOLUTION OF THE MUNICIPALITY OF SKAGWAY, ALASKA, APPROVING AND ADOPTING THE SKAGWAY RECREATION CENTER ADDITION CONCEPT DESIGN NARRATIVE.

WHEREAS, over the past several years, the Parks and Recreation Committee has thoroughly discussed the Skagway Recreation Center Addition Concept Design Narrative prepared by Architects Alaska and dated December 7, 2016; and

WHEREAS, at its meeting of March 20, 2019, the Parks and Recreation Committee discussed that the Concept Design Narrative remained viable and workable as a basis for further design and development although prepared in 2016, and recommends that the Assembly approve the Concept Design Narrative; and

WHEREAS, the Concept Design Narrative includes architectural, mechanical, and electrical plans for a proposed addition or additions to the existing Skagway Recreation Center and minor renovation of some existing spaces; project cost scenarios; and a construction cost estimate; and

WHEREAS, the Conceptual Design Narrative can be used as the basis for long-term development of the Recreation Center site, and can be used to pursue grants for project development;


NOW, THEREFORE, BE IT RESOLVED by the Borough Assembly of the Municipality of Skagway that the Municipality approves and adopts the Skagway Recreation Center Addition Concept Design Narrative prepared by Architects Alaska and dated December 7, 2016, as a basis for further design and development of the project and to pursue grants for project development.

PASSED AND APPROVED this 4th day of April, 2019, by the Assembly of the Municipality of Skagway, Alaska.



Andrew Cremata, Mayor

ATTEST:



Emily Deach
Municipal Clerk



(SEAL)

SKAGWAY RECREATION CENTER ADDITION

CONCEPT DESIGN NARRATIVE

12/07/16



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Executive Summary

The work described in this narrative consists of a proposed addition or additions to the existing Skagway recreation center, as well as minor renovation of some of the existing spaces. The current recreation center is part of a former school building that was adapted to a new purpose. The facility has been functioning adequately, but it lacks some of the purpose-built spaces that would help it serve the community better.

The facility began life in the 1970s as the new gymnasium for the Skagway city school. When the old school was demolished in the late 1980s, the gymnasium was remodeled to become a community center. In 1998, a small addition provided a two story space on the north side. In the two decades since, steadily increasing community demand has led the Center to look at expanding its footprint again.

A proposed addition will provide new, expanded spaces for exercise, in addition to a relocated entry and new admin office area. Another proposed addition would provide space for a new swimming pool with associated lockers and changing areas. Renovation of the existing building will concentrate on minor functional improvements to the architectural layout, as well as upgrades to the mechanical and electrical systems to support the new additions.

This document includes a concept site plan and floor plans illustrating how the recreation center might be expanded. It also includes a program document with space data sheets describing the individual rooms requested by the users. The building program was developed in 2016 through a meeting with the Skagway Rec Center staff.

Program details for the swimming pool addition were worked out in a separate process involving the rec center staff and USA Swimming. Please refer to the separate program document prepared by the pool committee for information on that part of the project.

Architectural Narrative

A Building Site

The existing Skagway Recreation Center is located in downtown Skagway, Alaska, on a block bounded by 13th Avenue to the north, Main and State Streets to the west and east, and a residential side street on the south. Access to the main parking lot is located directly west of the building off of Main Street. The total site is approximately 2.5 acres in size.

The portion of the site immediately west and southwest of the recreation center was previously occupied by the classroom and admin wing of the old Skagway city school. That portion of the school was demolished. The east side of the property is a grassy, landscaped area that runs the full north-south extent of the site, ending at a skate park along the southern edge. A children's playground is currently located in the upper northwest corner of the lot.

Based on the current layout of the property, the easiest direction for the recreation center to expand would be in the east or southeast direction. This is the least built-up portion of the site, and is not occupied by other structures or community facilities. Building in this area would also have the least impact on the operations of the center during construction. For those reasons, the concept plans included in the appendices show the proposed recreation center and swimming pool additions being located in this area.

The traffic pattern of drivers and pedestrians along the edges of the site also supports the idea of expanding the facility to the east. Although visitors are currently required to enter off of Main Street to the west, State Street on the east often carries more traffic. It would make sense for the expanded recreation center to address patrons entering from either of these major streets.

B. Exterior Design of the Building

The recreation center is a one story tall structure with a storage mezzanine on the west that was constructed as part of the Skagway city school in the 1970s. It is a premanufactured metal building that housed the school gym. Little about it was changed when it became a community center in the 1980s. The building wasn't modified again until 1998, when a two story space was added along the north side. A more recent remodel replaced the aging single skin metal panels with new insulated metal panels.

The exterior shell of the building consists primarily of insulated metal panels over a premanufactured steel building frame. The exterior of the 1998 addition is constructed of insulated metal siding panels over plywood sheathing and stick framed wood stud walls. This includes the two story 'lean-to' at the north side of the building that currently houses the cardio room and weight room.

The recreation center has a simple, functional appearance, with a single main volume covered by a sloping gable roof. That section of the building includes the gymnasium, cardio room and weight room. A lower, single story 'L' shaped space wraps the main volume on its west and south sides. This lower form has a sloped roof form similar to the main roof above. The lower volume encloses spaces for lockers, restrooms and daycare.

There are few openings in the main volume of the building, aside from high clerestory windows providing natural light to the gym. There is also a series of windows on the north elevation that open on to the second floor cardio room. Smaller rectangular windows along the west side provide daylight for a yoga/fitness room and restroom spaces on the first floor.



The existing building exterior was recently remodeled, and will be left 'as-is'.

C. Principal Materials

Existing Building

Exterior wall and roof finishes will not be modified beyond the minimum work required to construct the new addition. The exterior metal siding panels are only a few years old, and show no signs of rust or color fading. The exterior roof assembly consists of insulated metal roof panels over rigid insulation and plywood. The metal roof panels were replaced at the same time as the wall panels, and are also performing well.

Exterior doors are of insulated hollow metal construction with hollow metal frames and appear to be in good physical condition. Except as required for the construction of the additions, these existing door openings will remain in place. Exterior window openings also appear to be in good condition and will not be touched as part of the project.

The approach to the interior finishes and construction will be to keep as much of it in place as possible. Existing wood stud framed interior walls and gypsum board finishes will be retained. Gypsum board wall surfaces, hard lid ceilings and door frames will receive fresh paint. Interior wood doors which are damaged or delaminated will be replaced, but all existing doors that still have a good visual appearance will be kept 'as-is'. To the extent practical, existing floor finishes which are still in good condition will be cleaned and reused.

It is anticipated that the interior layout will remain largely 'as-is', but there will still be a few minor architectural changes. For example, the stair providing access to the cardio room at the north side of the building will be moved further east. This will be done to provide a second means of egress for the workout spaces in the new addition.

In addition, relocation of the main entry will allow an old space to serve a new purpose. The small projection off the south face of the building where the entry is currently located will be converted into new restrooms. These boys' and girls' restrooms will be accessed from the exterior of the building, and will serve people using the relocated playground, basketball courts and picnic area to the south.

The building's electrical system will also be modified. About two-thirds of the existing fluorescent light fixtures have already been replaced with LEDs. The remainder of the fixtures will be replaced with LEDs as part of the remodel. This will further increase the energy efficiency of the building while reducing required maintenance.

Mechanical changes will include the expansion of the boiler room to provide space for a new boiler or boilers serving the additions. It may also be possible to upgrade the controls of the air handling units serving the rec center to provide better ventilation and more even temperatures for existing spaces. Please refer to the mechanical and electrical sections of the narrative for more detailed information.

New Additions – Exterior Finishes

The rec center expansion will be finished with metal wall and roof panels of the same or similar color to that of the original building. It may also include some 'softer' alternative finishes to help the center fit better with the residential character of the surrounding neighborhood. The roof for the expansion will be a direct extension of the sloped metal panel roof of the gym.

The swimming pool addition would have its own gabled roof to establish a visual connection with the rest of the building. Its exterior shell will likely be constructed of concrete block masonry or precast concrete. For more information, refer to the separate program document for the swimming pool.

The new entry and admin space between the recreation center addition and the swimming pool will have a visual appearance distinctive from either of those spaces. This 'link space' will have a low slope roof with a parapet. The design of the exterior envelope will feature large amounts of glazing to draw in light and views. The intent is contrast the more transparent appearance of the entry with the mostly solid volumes of the rec center addition and swimming pool.

New Additions – Interior Finishes

Interior wall partitions for the recreation center expansion will consist of steel stud framed partitions finished with gypsum board. Doors will generally be solid core wood doors with hollow metal frames to match existing construction. Heavier duty door hardware will be specified to cope with the greater wear and tear of an athletic facility. Where necessary, doors into exercise rooms will have relites to allow visual monitoring from outside.

Doors for office and admin spaces will be wood veneer doors with a clear finish. Where appropriate, interior side lites will be used to share exterior natural light to interior spaces. Where privacy is required, frosted or fritted glass will be used so that both privacy and shared natural light are possible.

Ceiling finishes in admin office areas will typically be lay-in acoustical ceiling tile in a suspended ceiling grid. Fitness and exercise rooms will mostly have gypsum hard lid ceilings with a painted finish. Wood or

rubber flooring or mats will be used where appropriate in the workout spaces, and carpet in the office areas.

A key feature of the design for the addition will be the layout of the new entry area. Interior glazing will be used to enable the occupants of the neighboring offices to visually monitor people entering or leaving the facility. The floor finish for this area will include durable walk-off carpeting that can stand up to heavy traffic and the mud and water that may be tracked into the facility during the winter months. Wall finishes will be chosen with an eye to increased resistance to abuse.

Interior finishes of program spaces are further detailed in the space data sheets included with the building program. For more information about the finishes of the swimming pool, please refer to the separate document developed for that structure.

D. Functional Relationship of Interior Spaces

Existing Building

The existing recreation center is divided up into a large, rectangular central space (the gymnasium) wrapped by smaller auxiliary rooms. These smaller spaces are the men's and women's lockers and restrooms, fitness room, and janitorial and storage spaces. The existing fan room and cardio room occupy two long rectangular spaces on the second story that are accessible from separate stairs.

In general, the functional arrangement of the building is fairly efficient. The present layout does not waste a lot of floor area on unnecessary circulation space, and the gym is large enough to have room for multiple functions. The main issue is lack of available space to accommodate community demand for expanded fitness and exercise classes.



Existing fitness and exercise spaces are small, with little room for equipment and storage.

The rooms being used for fitness and cardio workouts were originally storage rooms. They come with some disadvantages because of their previous functions. For one, their footprints are too small to provide space for the quantity of workout equipment patrons expect to have available. Photos of the fitness and cardio rooms clearly show equipment that is very closely spaced, with little room for

circulation in between. A well laid out exercise space should allow room for a comfortably wide aisle between individual pieces of equipment.

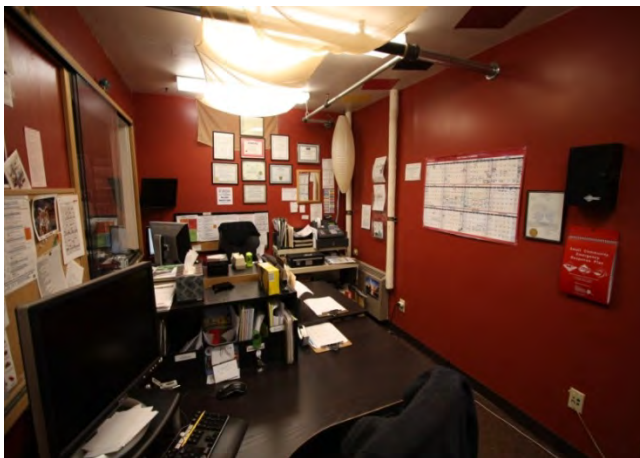
Small workout rooms would not have been a concern when the recreation center was remodeled, but the years since have seen the growth of private gym franchises like Planet Fitness or Body Renew. Users have come to expect more from exercise spaces in terms of the amount of equipment and the number and type of exercise programs available at any given time. The existing building simply does not have the footprint required to meet those needs.

One of the other problems with the exercise spaces is the absence of good ventilation. As noted, these rooms were previously meant for storage, and they do not receive much air movement from the mechanical system. Large groups of people engaged in high energy workouts create a lot of heat and moisture, and that can be a problem if the mechanical system isn't up to the challenge.

The mechanical system does what it can, but it lacks the zoning controls to provide comfortable thermal conditions in both the main gym and the auxillary spaces off to the side. If the gym is comfortable, the exercise spaces are too hot, and vice versa. The rec center staff would like to address this problem as part of a remodel.

Another challenge for the staff is the absence of dedicated office and admin space. Staff offices are currently squeezed into what used to be the radio room and coat storage. This area was never intended or designed for use as office space, and the staff has had to adapt to an awkward space layout to be able to function at all. The area is cramped, with little room for file storage or comfortable workspaces. There is also no room for private, enclosed offices.

As with the converted storage rooms, the 'recycled' office space comes with some other disadvantages. Because of their original function, the rooms have a gypsum board ceiling rather than the usual lay-in tiles. The hard ceiling and walls cause sounds to bounce around more than they would in a standard office, magnifying sounds and making conversations more difficult. The rooms' past life as utility spaces also mean that they have exposed sprinkler piping running beneath the ceiling. This piping reduces the effective height of the spaces and makes them feel even smaller than they actually are. The rooms also lack access to natural daylight.



Existing office space is cramped and lacks natural daylight.

The final problem with the facility isn't an existing room or feature that doesn't work well. It's the absence of a feature desired by the community. A recreation center of any considerable size typically has at least one lap swimming pool, and sometimes more than one. The Skagway Recreation Center has no pool at all. In fact, there isn't a public pool available in the entire city.

The city of Skagway has directed that any effort to expand the recreation center should also look at how to provide a pool building. This has led to a debate within the community over which part of the project is more essential – should the priority be the rec center expansion, or the construction of the pool? Or can both be built together?

Design Solutions

We propose to address the functional and program challenges listed above with two major design ideas. The first design idea is to solve the problem of limited exercise and office space by moving these areas out of the existing center into a new building addition. This will reduce pressure on the existing spaces by allowing some of the older rooms to return to being storage space as originally intended.

Office admin spaces will be laid out as a stand-alone cluster of rooms just off a new reception area and building lobby. This move allows the design to address multiple functional needs at the same time. First, proximity to the new entry point into the building will allow easy monitoring of traffic into and out of the facility by one or more people at a reception desk. Second, admin staff will have a dedicated work space with private offices and natural daylight. Third, creation of a more centrally located reception 'hub' will make it possible for people to enter the building from multiple directions. This will allow access for patrons coming from either Main Street or State Street.

Exercise and fitness spaces will be grouped together in a second cluster of space adjacent to both the existing gym and the new admin/entry area. This group of spaces would be two stories in height to keep the footprint as small as possible. Access to the upstairs will be provided by both a new stairway and an elevator to ensure accessibility for all users.

New, larger cardio and weight rooms will provide the space required for additional exercise equipment without skimping on room for circulation. A larger group fitness room, spin studio, and small fitness room will allow patrons to have more variety of choice in exercise programs. A 'day camp' area will provide space for afterschool student activities.

A System of Interlocking Parts

The second design idea is to plan a building addition that can be built in pieces, depending on what function the community wants to construct first. The program for the addition divides up naturally into three parts:

1. The new entry and admin space;
2. The rec center expansion (new fitness and exercise spaces) and
3. The swimming pool

One of those pieces (the new entry and admin space) should be constructed regardless of which of the other functions the community decides to pursue. That piece of the addition will serve as the 'spine' to which one or both of the other two parts can be attached. The other pieces would be designed as separate units that connect to the new entry, but not to each other.

To put it another way, the way in which each part is designed will allow the community to 'mix and match' them in the order it wants. If it wishes, the city can construct the new entry/admin area and the rec center expansion, but leave the pool for the future. On the other hand, the city could opt to build the entry/admin piece and the swimming pool, and build the rec center expansion later. A third option would be to build both the expansion and the swimming pool at the same time.

E. Major Systems

Depending on the particular location, the existing exterior wall system for the building consists either of insulated metal panels over metal building wall girts, or insulated metal panels over 2 x 6 wood studs and fiberglass batt insulation. The exterior wall system for the rec center expansion will consist of insulated metal wall panels over plywood sheathing and 6 inch metal wall studs.

As noted previously, existing insulated hollow metal doors and frames will remain. Exterior doors for the rec center expansion will be insulated hollow metal to match existing construction. New exterior windows will be insulated double pane vinyl window units. These high R-value window units will increase the energy efficiency of the addition by reducing the amount of heat lost to the outside at wall openings.

The existing roof consists of insulated metal panels over plywood sheathing supported by either metal roof girts on a steel building frame or TJI composite wood joists. The roof for the rec center expansion will be constructed of insulated metal roof panels over metal roof girts supported by a steel building frame.

The roof assembly over the admin/entry portion of the building will be a standard, single membrane roof over a cover board, on top of layers of rigid insulation over a vapor barrier and gypsum substrate board. The substrate board will rest on a structural metal deck supported by openwork steel joists.

See additional descriptions of the mechanical and electrical systems included under a separate heading.

F. Building Code Requirements

The basic building code requirements are as follows:

Building Code:	2012 International Building Code (IBC)
Occupancy Classification:	A-3 and A-4 (recreation, indoor sporting events)
Construction Type:	V-B Combustible, non-rated
Fire Protection System:	fire sprinkler system and fire alarms

Allowable area:

Total Proposed Area First Floor (existing building plus additions) = 32,474 sq ft
Total Proposed Area Second Floor (existing building plus additions) = 8,316 sq ft

$$I_f = [F/P - 0.25]W/30$$
$$I_f = .75$$
$$I_s = 2$$

$$A_a = \{A_t + [A_t \times I_f] + [A_t \times I_s]\}$$
$$A_a = \{6,000 \text{ sq ft} + [6,000 \text{ sq ft} \times .75] + [6,000 \text{ sq ft} \times 2]\}$$
$$A_a = \{6,000 \text{ sq ft} + [4,500 \text{ sq ft}] + [12,000 \text{ sq ft}]\}$$
$$A_a = 22,500 \text{ sq ft allowable area}$$

Total Proposed Area First Floor > 22,500 sq ft: Total Proposed Area exceeds allowable area
Total Proposed Area Second Floor < 22,500 sq ft: Total Proposed Area is OK.

In order to not exceed the maximum allowable area for the first floor, a portion of the new addition would need to be separated from the remainder of the building by a fire wall. The fire wall would allow that section to be considered a separate building under the code. Per Section 706 (Table 706.4) of the IBC, a fire wall separating Group A occupancies would be required to have a 3 hour fire resistance rating.

The swimming center would be the most logical portion of the facility to isolate with a fire wall. The program functions of that space do not overlap with the program of the rec center expansion. Both areas would still be able to share access to a common entry/admin space.

Sprinkler system:	Inclusion of a sprinkler system relaxes other requirements of the code, such as corridor and stair construction and allowable area.
Corridor Construction:	Fire-resistive assembly not required, since the building has a sprinkler system.
Separation of Occupancy:	Per Table 508.4, the IBC normally requires a one hour rated separation between an A (assembly) and a B (office) group occupancy in a sprinklered building. However, the area of office space in the proposed addition is less than 10% of the floor area, which would allow it to be treated as an accessory use.
Incidental Use:	Per Table 509, a 1 hour fire rated separation wall would be required between the existing boiler room and the new addition. The IBC requires such a separation for boiler rooms where the largest piece of equipment is over 10 psi and 15 hp. The code allows fire sprinkler protection to be substituted for the one hour rating, but there must still be a separation wall able to resist the passage of smoke.

G. Building Efficiency

The most efficient building layouts avoid the use of multiple, meandering hallways in favor of compact grouping of spaces along double loaded corridors. This reduces the amount of floor area sacrificed to

circulation while providing clear, uncomplicated movement through the space. A typical rule of thumb is to keep circulation space at 15 – 20% of the total building area. Approximately 3,800 SF of the 20,600 SF first floor concept plan for the addition is used for hallways or circulation. That works out to 18.4% of the total area of the addition.

The new admin office area will be laid out as a compact block of space on either side of a short hallway leading to the main reception desk. The new fitness and exercise spaces are nested together in a tight group, with access to one room through another in order to minimize the amount of hallways. In order to provide an efficient exit path, the new fitness spaces meet the existing gym along a double loaded corridor serving both areas.

Mechanical Systems

Heating System

- Existing boilers to remain (2 units at 818 MBH gross output).
- Recommend adding an equivalent size boiler for the recreation addition.
- Recommend adding an equivalent size boiler for the separate aquatic addition.
- Alternately, add a nominal 1600 MBH boiler as a 3rd boiler that will handle both the recreation addition and the aquatic addition.
- Replace existing heating circulation pumps with 2 new pumps, sized for both additions. Provide a VSD for each pump and differential pressure sensor to allow for variable flow in the system
- Provide hydronic terminal heating devices (fintube, cabinet unit heaters, unit heaters, duct reheat coils) as appropriate for individual space heating.
- Relocate existing fuel oil tank to accommodate 2 building additions.

Ventilation Systems

- Provide new constant volume AHU for the recreation addition. Unit will have a mixing box, MERV 8 angled filters, heating coil and fan section, and be provided with a VSD for soft starting and balancing. Estimated size is 15,000 CFM.
- Provide a duct reheat coil for each zone served by the AHU; estimated 12 zones.
- The separate aquatic addition will require 2 separate AHUs, one to serve the natatorium and one to serve the adjacent spaces.
- Provide range hood over stove in Day Camp/After School room.
- Provide an 80 CFM ceiling exhaust fan in each of the two new restrooms accessed from the outdoors. Tie fan operation to the light switch.

AHU 4 (existing, per designation on as-builts):

- Serves the gym, cardio room, weight room.
- Revise temperature control for these 3 spaces as follows:
- Set AHU supply air discharge temperature at 60F.
- Gym temperature controlled by a thermostat that cycles a new duct reheat coil (AHU size is unknown, but estimated at 10,000 CFM for the gym).
- Weight room temperature controlled by a thermostat that cycles a new duct reheat coil (200 CFM).
- Cardio room temperature controlled by a thermostat that cycles 2 new duct reheat coils (200 CFM each).
- To accomplish the above control, the ductwork branch leading to the Cardio and Weight rooms will need to be modified to connect upstream of the 6 Gym diffusers and new reheat coil.

AHU 6 (per designation on as-builts):

- Serves multi-purpose room and Yoga/Fitness room.
- Single return grill in multi-purpose room does not provide for proper return air from Yoga/Fitness.

- Add a return air grille to Yoga/Fitness and duct it in the attic space back to AHU-6 and connect to existing return air duct.

Fire Protection

- Extend existing fire sprinkler system to the new addition(s).
- It is assumed the existing 4" water service size is adequate for the sprinkler system and does not need to be replaced with 6".

Plumbing

- Extend existing plumbing cold water and hot water systems to the new addition.
- Provide plumbing fixtures as noted and required for two new restrooms and Day Care / After School room.
- Provide elevator sump pump.

Electrical Systems

Power Distribution

Existing

- Existing Main Distribution Panel (MDP) is rated at 200 Amp, 208Y/120V, 3-phase.
- There are five sub-feed circuit breakers in the MDP for serving existing subpanels distributed throughout the building as follows:
 - IDP1: Lobby
 - IDP2A: Gymnasium/weight room
 - IDP3: Office
 - IDP4: Cardio (not enough circuits for all of the equipment according to staff)
 - IDP5: Serves the boiler room
- The MDP has two circuit breakers noted as spare.
- The existing electrical service and MDP are not adequately sized to support the new recreation and administration area addition and the separate pool addition.

New/Revised

- Provide new electrical service sized to serve the existing building, the recreation and administration area addition and the separate pool addition. Minimum service size is estimated at 1,200 Amp, 208Y/120V, 3-phase.
- Provide new 1,200 Amp, 208Y/120V, 3-phase MDP. Include nine sub-feed circuit breakers in the MDP to serve the five existing subpanels, plus four future new ones for the two additions. Include four 200 Amp 3-pole prepared spare breaker spaces.
- Provide two 200 Amp, 208Y/120V, 3-phase subpanels for the recreation and administration area addition.
- Provide feeders to existing and new subpanels.
- Provide branch circuits for power to new mechanical equipment, elevator, receptacles and owner-furnished equipment. Provide receptacles in the new and renovated areas.
Note: Refer to Program Data Sheets for specific power requirements in each new room/area.

Lighting

Existing

- Existing Lighting throughout the building is primarily LED type fixtures with some remaining areas of fluorescents.
- Manual and automatic controls for the existing lighting are limited.

New/Revised

- Provide new high efficiency LED type light fixtures throughout the new areas in quantities and locations to provide IESNA recommended lighting levels. LED types will meet LM-79 standards and be DOE qualified >80 CRI. Fixtures with integral dimming drivers and low-voltage controls are recommended throughout most of the new areas, except in general utility rooms/spaces.
- Provide occupancy, vacancy and daylight sensors where appropriate in rooms/areas to improve energy conservation.
- Provide battery powered emergency lighting and exit signs where required by the IBC. Include emergency lighting at exterior exit landings.
- Consider upgrading existing lighting in existing areas to LED types, where desired by Owner and within budget constraints.

Telecom

Existing

- Existing telecom distribution throughout the existing building is limited. Exact telecom distribution cabling and system performance is unknown. It is also not known if there is an existing telephone switch (PBX) for serving telephones throughout the building, or if it can support additional telephones.

New/Revised

- Provide new wall mounted enclosed telecom rack with patch panels for termination of new horizontal telecom cabling. Rack should be located in an area central to the new administration area.
- Provide new horizontal telecom cabling and outlets for the new and renovated areas where required. CAT 6a performance level cabling, terminations and equipment is recommended. Note: Refer to Program Data Sheets for specific telecom/data requirements in each new room/area.

Fire Alarm/Security

Existing

- An existing fire alarm panel for the building is located in the reception office. The existing fire alarm system is a non-addressable type and does not meet current NFPA, IBC, IFC, and ADAAG code requirements. The system has reached the end of its useful life and can no longer be easily serviced and requires replacement.
- There is an existing CCTV/video security system that serves the building. Condition or type of system is unknown.

New/Revised

- Replace fire alarm system with new analog addressable type compliant with IBC, IFC, NPFA and ADAAG requirements. System to be sized to support both the recreation and administration area addition and the separate pool addition.
- Provide additional CCTV security cameras for the recreation and administration area addition. IP based with POE type cameras are recommended with interface/conversion hardware to interface with existing system.

Cable TV (CATV)

Existing

- An existing CATV system serves the existing cardio room.

New/Revised

- Expand existing CATV system to serve new fitness/cardio rooms and possibly the spin studio room and weight room. Note: Refer to Program Data Sheets for specific CATV requirements in new room/areas.

Audio

Existing

- A small sound system is provided in the yoga/fitness room.

New/Revised

- Provide sound systems to serve the new fitness room and possibly the spin studio room.

Appendix A – Concept Site and Building Plans



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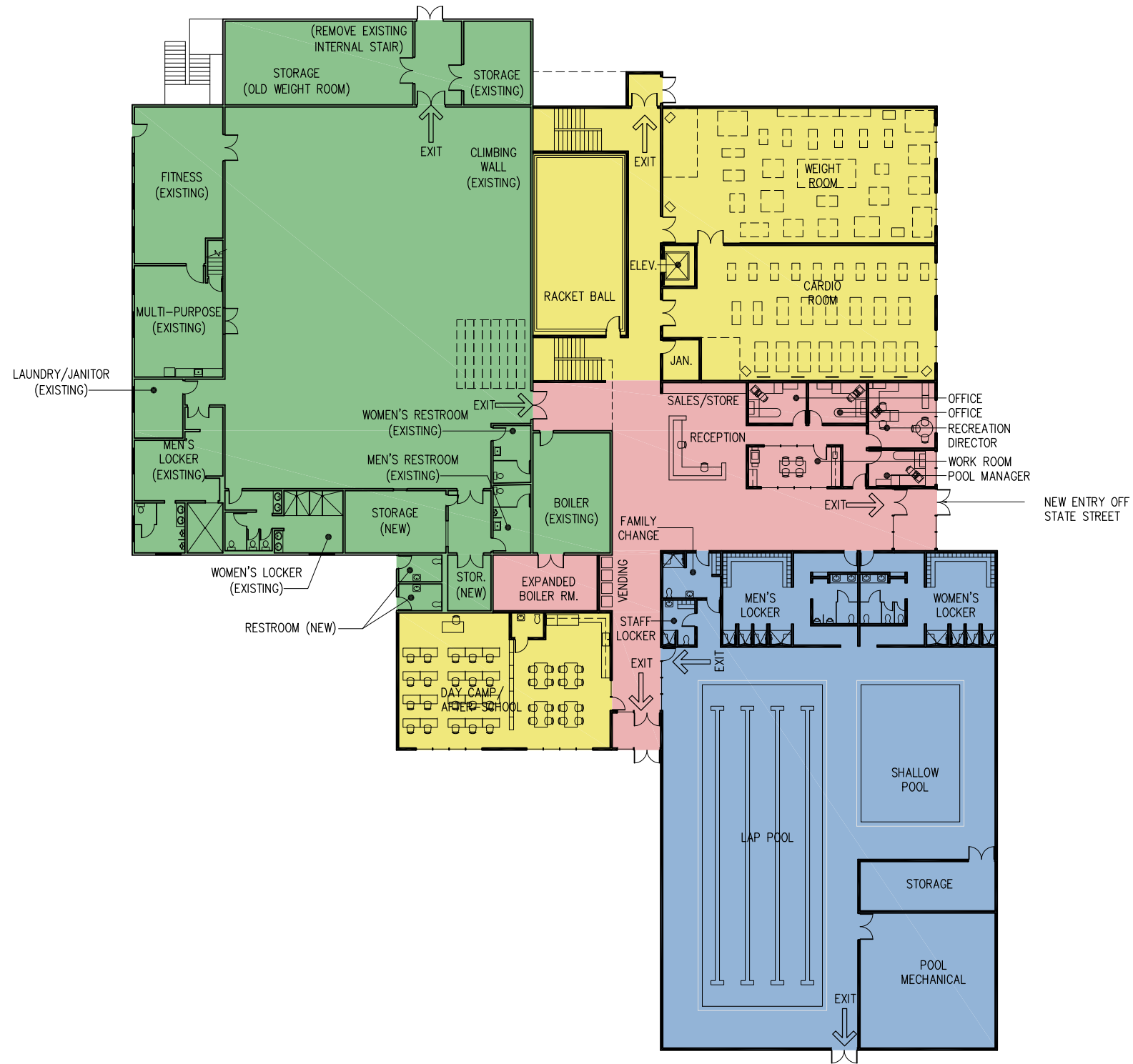
- LEGEND
- EXISTING BUILDING
 - RECREATION CENTER ADDITION
 - ADMINISTRATION/ LOBBY ADDITION
 - POOL ADDITION

SKAGWAY RECREATION CENTER - SITE PLAN
 23 AUGUST 2016

SCALE: 1/32" = 1'-0"



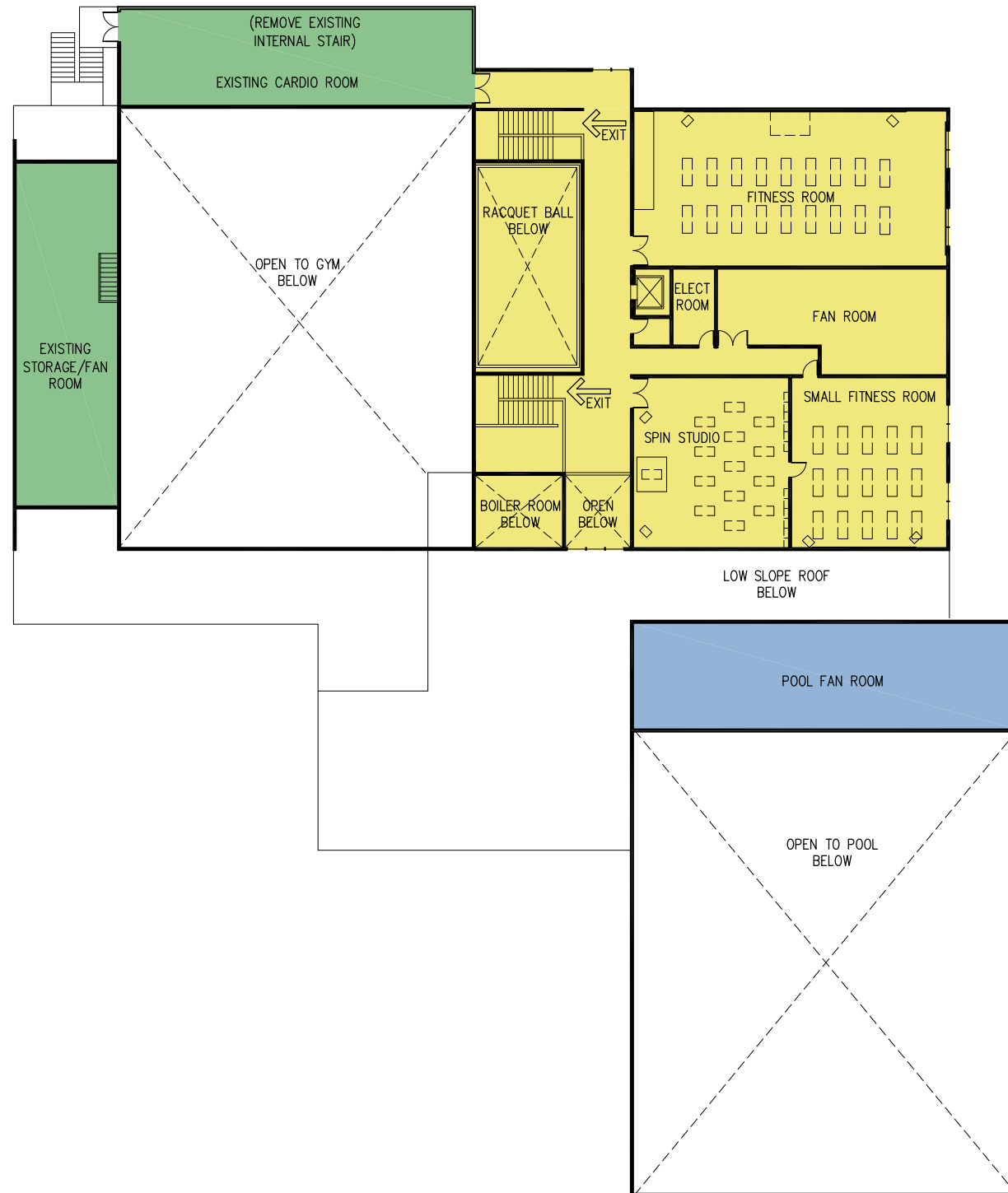
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- LEGEND
- EXISTING BUILDING
 - RECREATION CENTER ADDITION
 - ADMINISTRATION/ LOBBY ADDITION
 - POOL ADDITION

Appendix B Program & Space Data Sheets

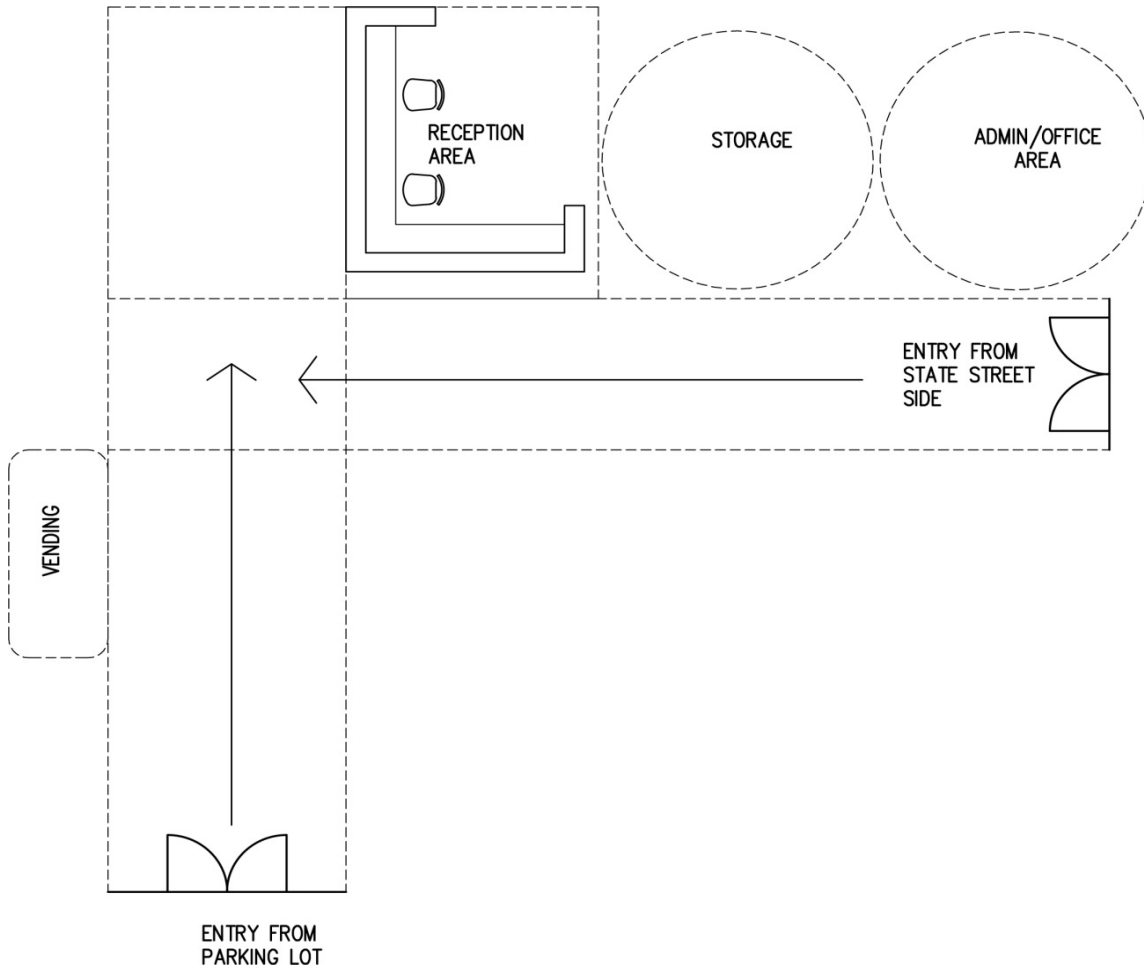
**MOS Recreation Center Addition
Skagway, Alaska**

12/07/16

Space Data	Room	No. of Rooms	Program Area	Actual Area	No. of Occupants	Total Area	Notes
PS01	Lobby	1	600	608	6	608	
PS02	Reception	1	200	140	2	140	
PS03	Offices	2	150	144	2	288	
PS04	Director Office	2	225	252	1 + visitor	504	
PS05	Work Room	1	200	192	3	192	
PS06	Cardio Room	1	1,650	1,650	32	1,650	
PS07	Day Camp/After School	1	1,550	1,650	42	1,650	
PS08	Weight Room	1	2,200	1,920	25	1,920	
PS09	Fitness Room	1	1,500	1,736	20	1,736	
PS10	Spin Studio	1	765	852	15	852	
PS11	Small Fitness	1	765	852	15	852	
PS12	Fan Room	1	800	1,200	3	1,200	
PS13	Janitor Room	1	81	30	N/A	30	
Total Program Space						11,622	
Circulation Space (15%)						1,743	
Pool Addition (from separate document by USA Swimming)						10,000	
Total Space Required						23,365	

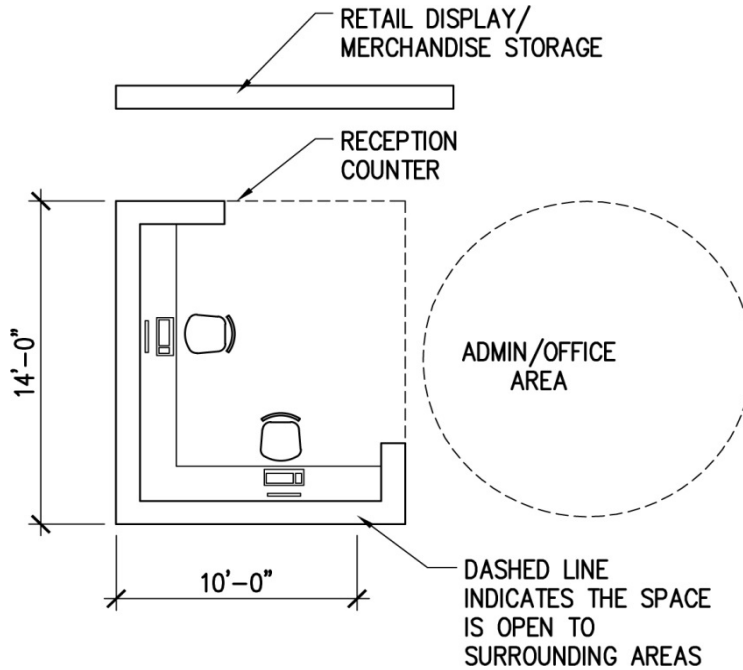
Number	Space Name	No. of Rooms	Room #:
PS01	Lobby	1	101

Space	Area	600	Comments
	Critical Dimensions	6 ft min. corridor width	High ceiling space providing orientation point for users arriving from multiple directions. There should be a vending area for snacks and beverages adjacent to the lobby space.
	Ceiling Height	10 ft min.	
	Adjacencies	reception, director and training offices, pool addition	
	Occupants	6	
	Natural Light	yes	
	Equipment or Casework	N/A	
	Acoustical Requirements	no	
	Special Mechanical Requirements	no	
	Artificial Light	LED light fixtures	
	Floor Finish	walk-off matt, carpet	
	Wall Finish	gypsum board	
	Ceiling	lay-in acoustical ceiling panels	
	Doors	insulated hollow metal doors and frames	
	Security	keyed lockset	
	Visibility to Other Areas	reception and offices, cardio, day camp	



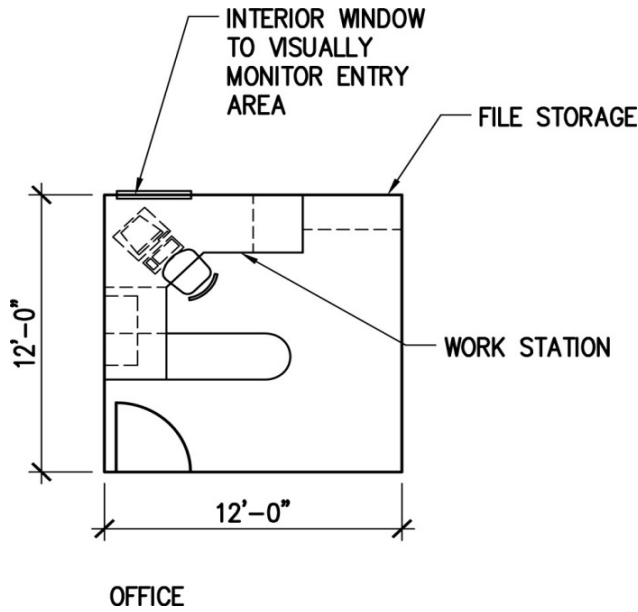
Number	Space Name	No. of Rooms	Room #:
PS02	Reception	2	102

Space	Area	200	Comments
	Critical Dimensions	7 ft min depth	The reception area will act as the central hub for the facility. Staff can monitor traffic in an out of the building and provide assistance to visitors. This space needs to be able to easily monitor both entrances to the building. Reception should also include a small retail space for display of T-shirts and other items for sale. Patrons can 'check out' equipment from the storage room near by.
	Ceiling Height	8 ft min.	
	Adjacencies	offices, lobby, storage	
	Occupants	2	
	Natural Light	N/A	
	Equipment or Casework	built-in reception desk	
	Acoustical Requirements	no	
	Special Mechanical Requirements	no	
	Artificial Light	LED fixtures	
	Floor Finish	carpet	
	Wall Finish	gypsum wall board	
	Ceiling	lay-in acoustical ceiling tile	
	Doors	N/A	
	Security	N/A	
	Visibility to Other Areas	visible to offices	



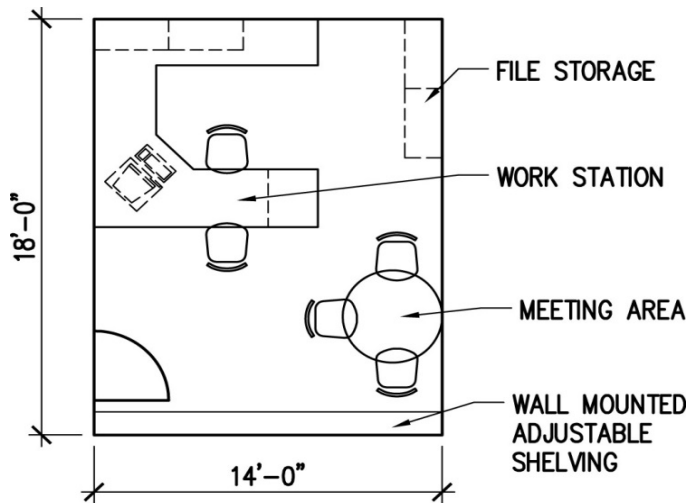
Number	Space Name	No. of Rooms	Room #:
PS03	Offices	2	103 & 104

Space	Area	150	Comments
	Critical Dimensions	8 ft min. width	General office space. Each office needs space for occupant and visitor, office system furniture. One office space will be used for Personal Training. The personal training office should be more private than general office space, with room for meetings between trainers and clients.
	Ceiling Height	9 ft	
	Adjacencies	reception, weight room, day camp	
	Occupants	1 + visitor	
	Natural Light	yes	
	Equipment or Casework	yes - phone and computer	
	Acoustical Requirements	yes - needs acoustical isolation from noisier spaces	
	Special Mechanical Requirements	normal range of human comfort	
	Artificial Light	LED light fixtures	
	Floor Finish	carpet	
	Wall Finish	gypsum board	
	Ceiling	lay-in acoustical ceiling tile	
	Doors	wood w/ hollow metal frame	
	Security	keyed lockset	
	Visibility to Other Areas	able to monitor reception, entry to cardio room and day camp	



Number	Space Name	No. of Rooms	Room #:
PS04	Director Office	2	105 & 106

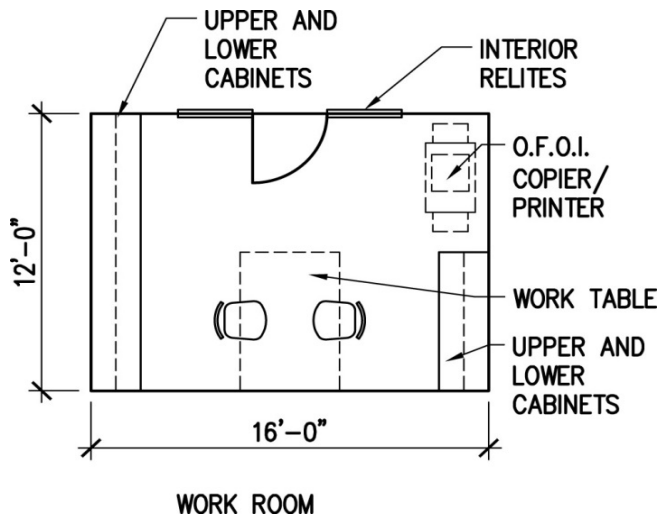
Space	Area	225	Comments
	Critical Dimensions	8 ft min. width	Offices for rec center director and pool manager. Each office needs space for occupant and visitor, office system furniture.
	Ceiling Height	9 ft	
	Adjacencies	reception, general admin area	
	Occupants	1 + visitor	
	Natural Light	yes	
	Equipment or Casework	yes - phone and computer	
	Acoustical Requirements	yes - needs acoustical isolation from noisier spaces	
	Special Mechanical Requirements	normal range of human comfort	
	Artificial Light	LED light fixtures	
	Floor Finish	carpet	
	Wall Finish	gypsum board	
	Ceiling	lay-in acoustical ceiling tile	
	Doors	wood w/ hollow metal frame	
	Security	keyed lockset	
	Visibility to Other Areas	no	



REC CENTER
DIRECTOR OFFICE

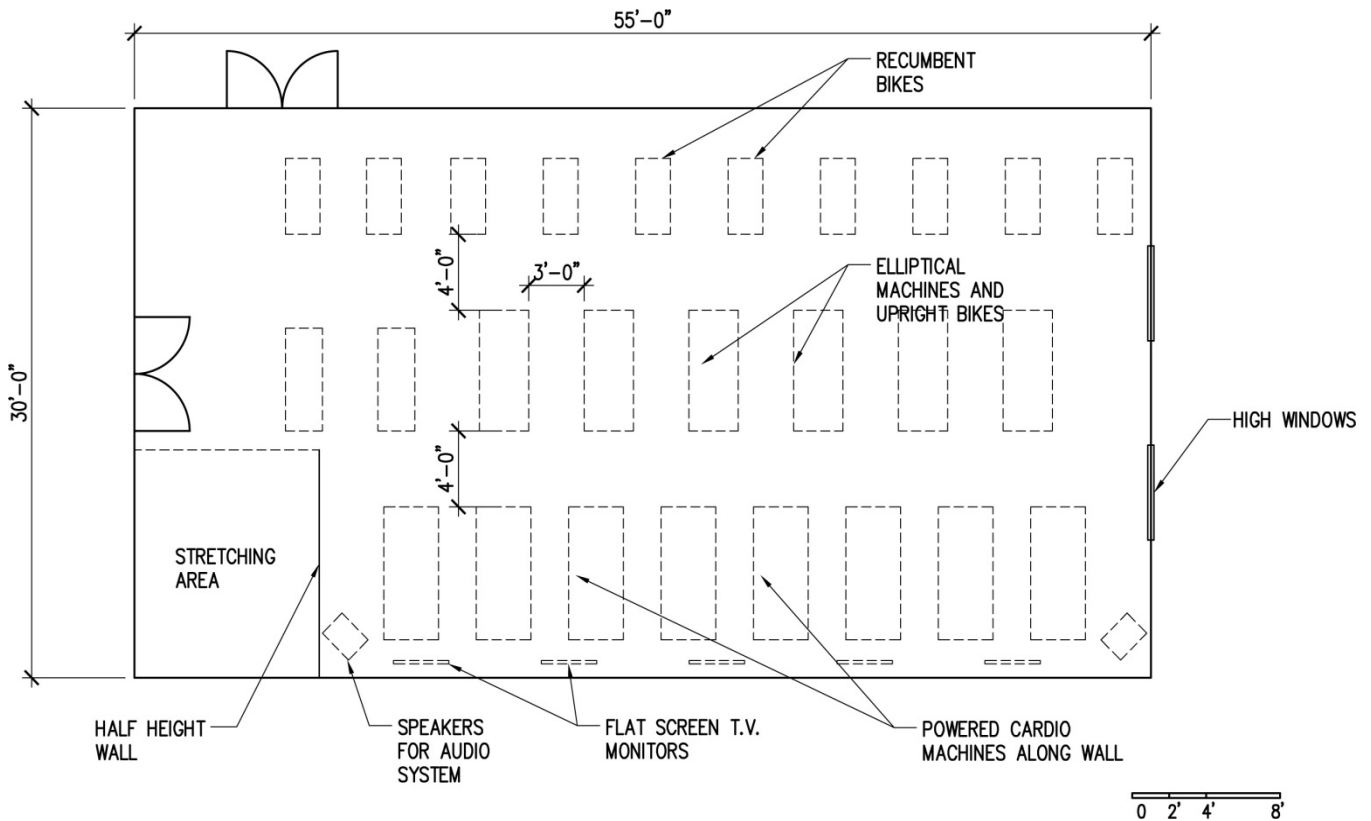
Number	Space Name	No. of Rooms	Room #:
PS05	Work Room	1	107

Space	Area	200	Comments
	Critical Dimensions	8 ft min. width	Work room serving admin area. Space should include lower and upper cabinets for storage, and space for copier/printer as well as work table
	Ceiling Height	9 ft	
	Adjacencies	reception, admin area	
	Occupants	3	
	Natural Light	yes	
	Equipment or Casework	yes - phone and computer	
	Acoustical Requirements	yes - needs acoustical isolation from noisier spaces	
	Special Mechanical Requirements	normal range of human comfort	
	Artificial Light	LED light fixtures	
	Floor Finish	carpet	
	Wall Finish	gypsum board	
	Ceiling	lay-in acoustical ceiling tile	
	Doors	wood w/ hollow metal frame	
	Security	keyed lockset	
	Visibility to Other Areas	visible to rest of admin area	



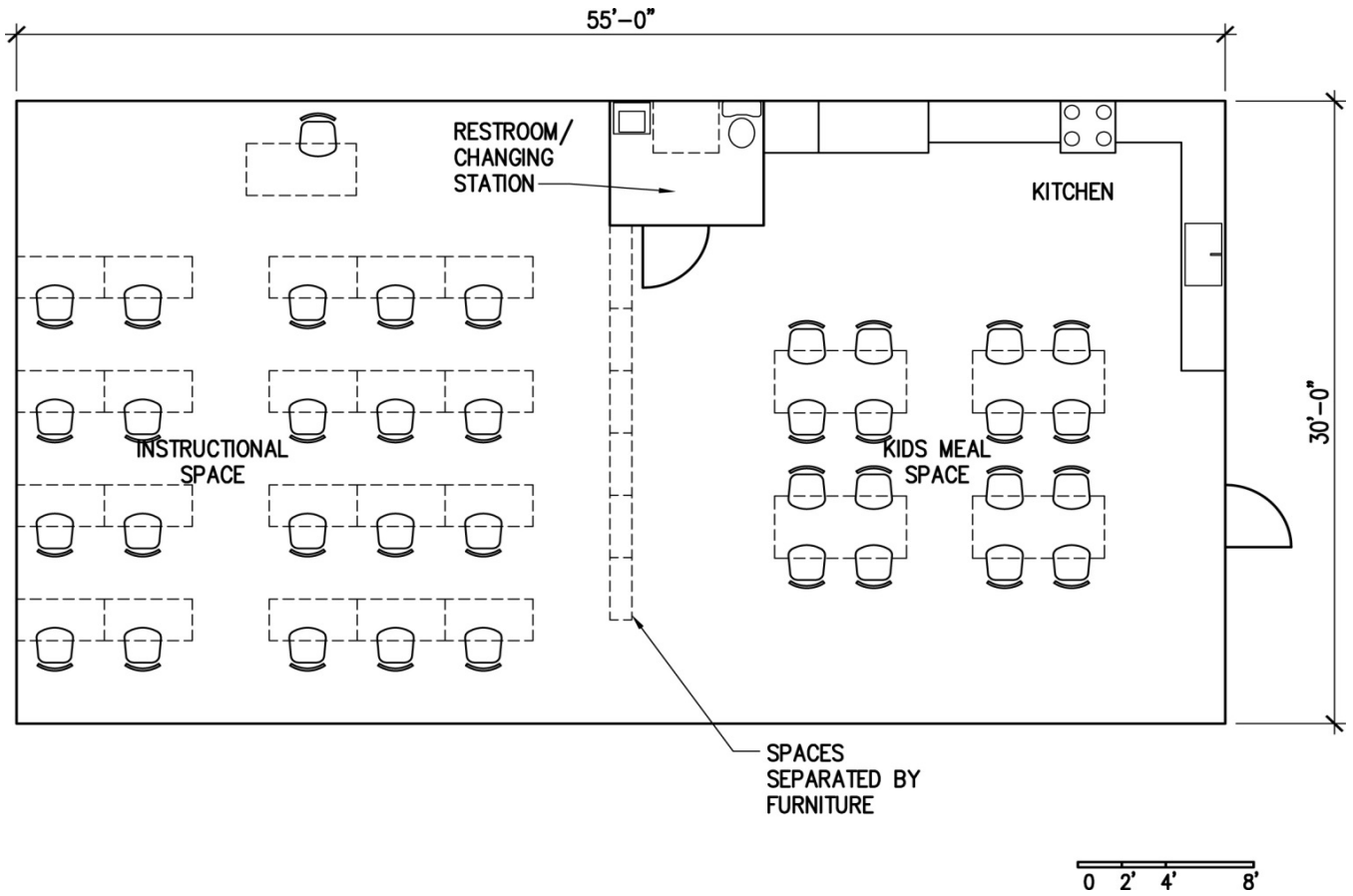
Number	Space Name	No. of Rooms	Room #:
PS06	Cardio Room	1	105

Space	Area	1650	Comments
Critical Dimensions	N/A		keep windows up high to allow natural light while maintaining privacy; needs to include stretching area separated by half height wall
Ceiling Height	10 ft		
Adjacencies	close to weight room, day camp, reception		
Occupants	32		
Natural Light	yes		
Equipment or Casework	t.v. screens, no mirrors		
Acoustical Requirements	yes - reverberation control		
Special Mechanical Requirements	good ventilation		
Electrical requirements	power for one row of cardio machines		
Special Electrical	audio/video system for use with t.v. monitors and earphones		
Artificial Light	LED light fixtures		
Floor Finish	rubber sheet flooring		
Wall Finish	gypsum wall board		
Ceiling	gypsum board hard lid		
Doors	solid core wood door with hollow metal frame		
Security	passage lockset		
Visibility to Other Areas	entry visible to reception, offices		



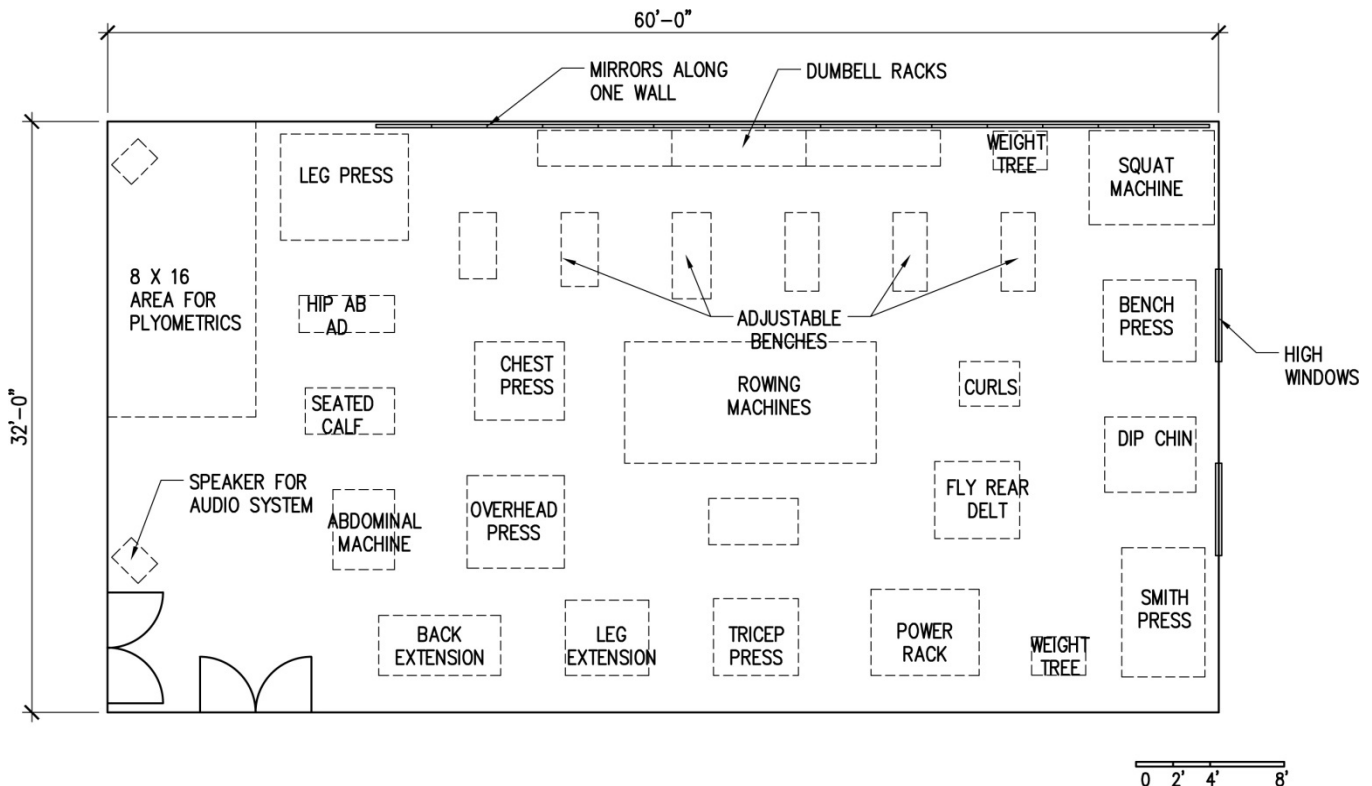
Number	Space Name	No. of Rooms	Room #:
PS07	Day Camp/After School	1	106

Space	Area	1550	Comments
	Critical Dimensions	N/A	This room will provide a space for student after school activities.
	Ceiling Height	9 ft	
	Adjacencies	close to weight room/playground	
	Occupants	42	
	Natural Light	yes	
	Equipment or Casework	fixed counter and base cabinets; large and small sinks, oven and fridge	
	Acoustical Requirements	N/A	
	Special Mechanical Requirements	ventilation hood for stove top	
	Artificial Light	LED light fixtures	
	Floor Finish	vinyl tile	
	Wall Finish	gypsum wall board	
	Ceiling	lay-in acoustical ceiling tile	
	Doors	solid core wood door w/ hollow metal frame	
	Security	passage lock set	
	Visibility to Other Areas	entry visible to reception, offices	



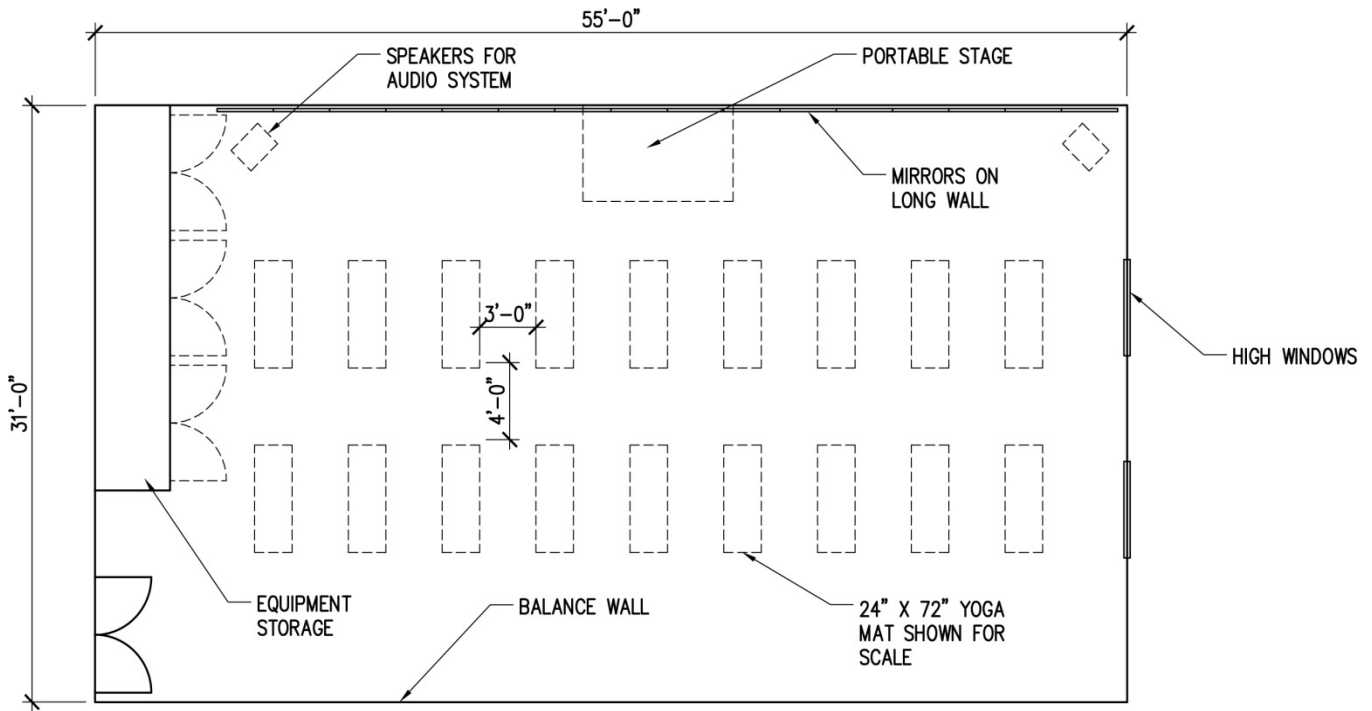
Number	Space Name	No. of Rooms	Room #:
PS08	Weight Room	1	107

Space	Area	2200	Comments
	Critical Dimensions	N/A	Keep windows up high to allow natural light while maintaining privacy
	Ceiling Height	10 ft	
	Adjacencies	close to cardio room	
	Occupants	25	
	Natural Light	yes	
	Equipment or Casework	mirrors	
	Acoustical Requirements	yes - control sound echoes	
	Special Mechanical Requirements	ventilation	
	Electrical Requirements	N/A	
	Special Electrical	audio system	
	Artificial Light	LED light fixtures	
	Floor Finish	rubber sheet flooring	
	Wall Finish	gypsum wall board	
	Ceiling	gypsum board hard lid	
	Doors	solid core wood doors w/ hollow metal frame	
	Security	passage lockset	
	Visibility to Other Areas	desirable but not required	



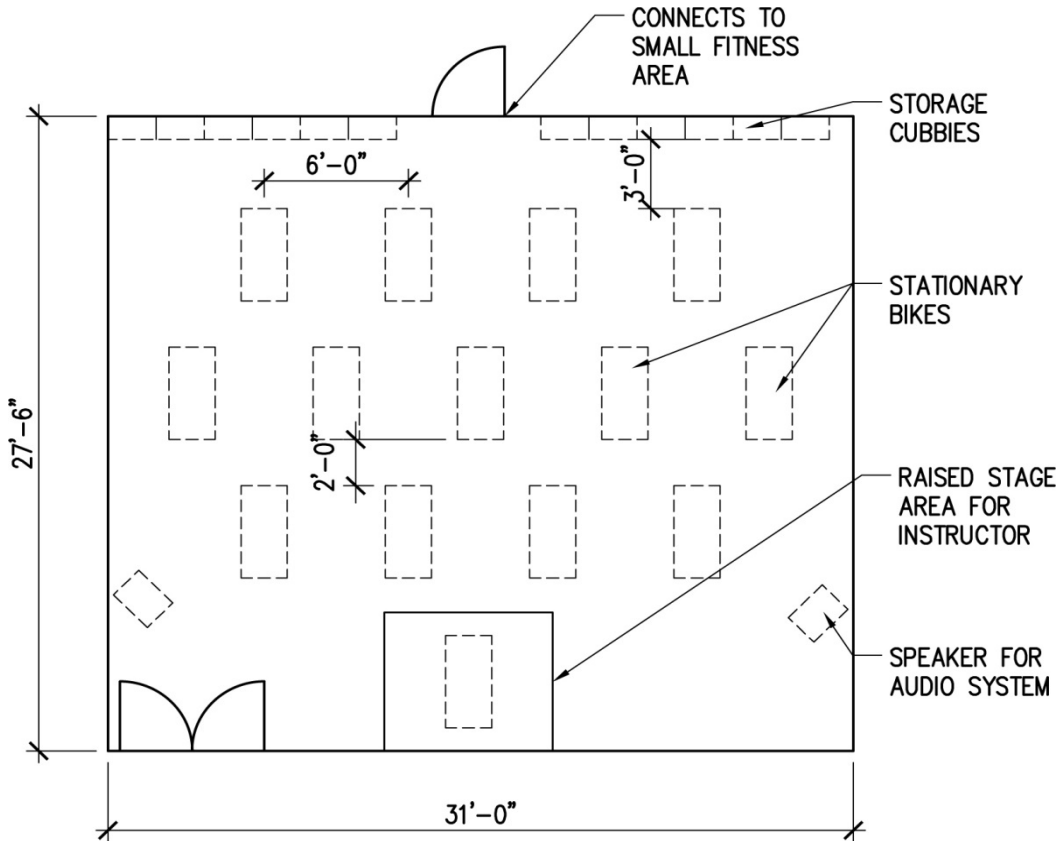
Number	Space Name	No. of Rooms	Room #:
PS09	Fitness Room	1	108

Space	Area	1500	Comments
Critical Dimensions	N/A		Keep windows up high to allow natural light while maintaining privacy. Provide support points at ceiling for hanging yoga hammocks and TRX straps.
Ceiling Height	10 ft		
Adjacencies	remote from noisy spaces		
Occupants	20		
Natural Light	yes		
Equipment or Casework	yes - mirrors on two walls		
Acoustical Requirements	yes - isolated from noisy spaces		
Special Mechanical Requirements	good ventilation; heaters for hot yoga		
Artificial Light	LED light fixtures - lighting control switch for indirect light		
Special Electrical Systems	audio system		
Floor Finish	wood flooring		
Wall Finish	gypsum board		
Ceiling	exposed to structure above		
Doors	solid core wood doors w/ hollow metal frame		
Security	passage lockset		
Visibility to Other Areas	No - provide relites in doors		



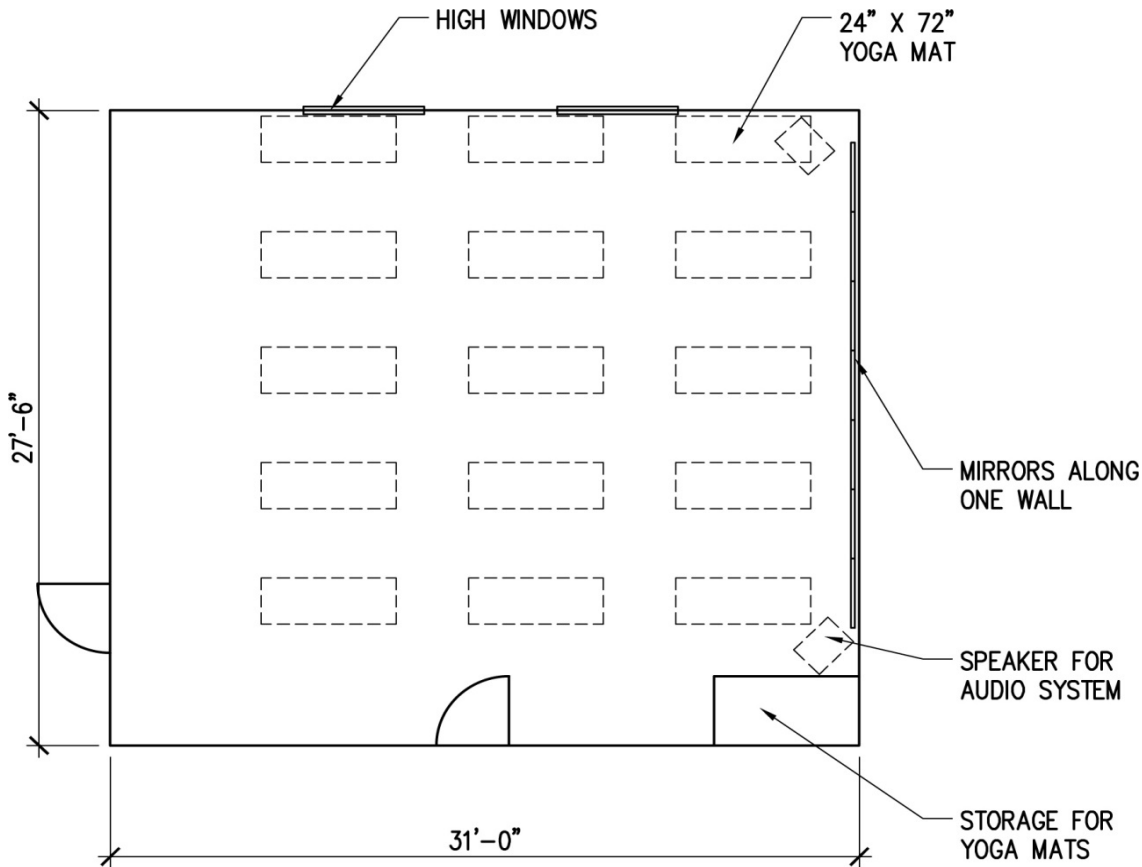
Number	Space Name	No. of Rooms	Room #:
PS10	Spin Studio	1	109

Space	Area	765	Comments
	Critical Dimensions	N/A	Storage cubbies not required to be lockable. Provide support points at ceiling for speakers.
	Ceiling Height	10 ft	
	Adjacencies	small fitness room	
	Occupants	15	
	Natural Light	No	
	Equipment or Casework	cubbies	
	Acoustical Requirements	yes - sound separation from noisier spaces	
	Special Mechanical Requirements	ventilation - fans	
	Special Electrical Systems	Existing audio system	
	Artificial Light	LED light fixtures - need lighting control - indirect LED	
	Floor Finish	rubber mats	
	Wall Finish	gypsum board	
	Ceiling	exposed to structure above	
	Doors	solid core wood door w/ hollow metal frame	
	Security	passage lockset	
	Visibility to Other Areas	No - provide relites in doors	



Number	Space Name	No. of Rooms	Room #:
PS11	Small Fitness	1	110

Space	Area	765	Comments
	Critical Dimensions		Keep windows up high to allow natural light while maintaining privacy. Provide support points at ceiling for hanging yoga hammocks and TRX straps.
	Ceiling Height	10 ft	
	Adjacencies	close to spinning room	
	Occupants	15	
	Natural Light	yes	
	Equipment or Casework	mirrors, storage for yoga mats	
	Acoustical Requirements	acoustical separation	
	Special Mechanical Requirements	ventilation - fans	
	Artificial Light	LED light fixtures	
	Special Electrical Systems	audio system	
	Floor Finish	hardwood flooring	
	Wall Finish	gypsum board	
	Ceiling	exposed to structure above	
	Doors	solid core wood door w/ hollow metal frame	
	Security	passage lockset	
	Visibility to Other Areas	No - provide relites in doors	

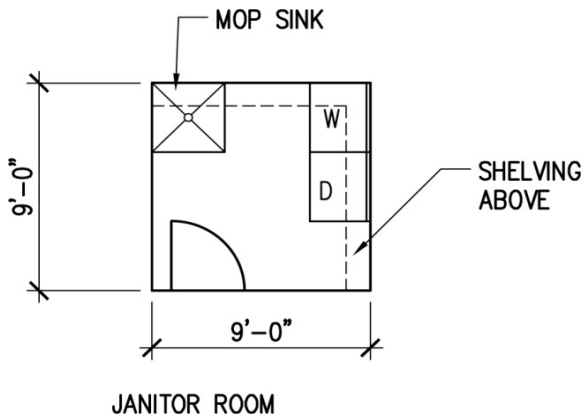


Number	Space Name	No. of Rooms	Room #:
PS12	Fan Room	1	111

Space	Area	800	Comments
	Critical Dimensions	N/A	This fan room will serve both the rec center expansion and the entry/admin area. The pool addition will have its own fan room space.
	Ceiling Height	10 ft	
	Adjacencies	can be remote from other spaces	
	Occupants	3	
	Natural Light	no - not required	
	Equipment or Casework	air handling unit	
	Acoustical Requirements	provide acoustical isolation from surrounding spaces	
	Special Mechanical Requirements	outside air intake, venting	
	Artificial Light	LED light fixtures	
	Floor Finish	concrete floor slab	
	Wall Finish	gypsum wall board	
	Ceiling	exposed structure	
	Doors	solid core wood door w/ hollow metal frame	
	Security	keyed lockset	
	Visibility to Other Areas	not required	

Number	Space Name	No. of Rooms	Room #:
PS13	Janitor Room	1	112

Space	Area	81	Comments
	Critical Dimensions	N/A	Janitor closet should include storage space for cleaning products and a washer and dryer
	Ceiling Height	8	
	Adjacencies	close to cardio room	
	Occupants	N/A	
	Natural Light	no - not required	
	Equipment or Casework	mop sink, washer and dryer	
	Acoustical Requirements	N/A	
	Special Mechanical Requirements	N/A	
	Artificial Light	LED light fixtures	
	Floor Finish	vinyl sheet flooring	
	Wall Finish	gypsum wall board	
	Ceiling	exposed structure	
	Doors	solid core wood door w/ hollow metal frame	
	Security	keyed lockset	
	Visibility to Other Areas	not required	



Appendix C Project Cost Scenarios and Construction Cost Estimate

SKAGWAY RECREATION CENTER ADDITION
Project Cost Scenarios

OPTION A - Separate Projects		
This options assumes that the Recreation Center Addition, Existing Facility Upgrades, Site Improvements, and Aquatic Center would each be constructed as separate projects, and includes price escalation to 2018		
Construction Cost		
Recreation Center Addition	\$ 3,533,426	From HMS Estimate
Upgrades in Existing Facility	\$ 873,557	Includes HVAC upgrades
Sitework Improvements	\$ 401,048	From HMS Estimate
Administrative Core Addition	\$ 481,641	From HMS Estimate
Aquatic Center *	\$ 8,839,608	* Updated by HMS
Total Construction Cost (construction contract)	\$ 14,129,280	
Other Project Costs		
Legal/Administrative Costs (5%)	\$ 706,464	
Architectural/Engineering Fees (10%)	\$ 1,412,928	
Furniture, Fixtures, Equipment (5%)	\$ 706,464	
Contingency (5%)	\$ 706,464	
Total Other Project Costs	\$ 3,532,320	
Option A total Project Cost	\$ 17,661,600	

OPTION B - Single Complete Project		
Under this option, all portions of the project would be constructed under a single construction contract. This includes the recreation center addition, administrative core, sitework, and aquatic center addition. Includes price escalation to 2018		
Construction Cost		
Build All Work as Single Contract	<u>\$ 13,444,446</u>	From HMS Estimate
Total Construction Cost (construction contract)	\$ 13,444,446	
Other Project Costs		
Legal/Administrative Costs (5%)	\$ 672,222	
Architectural/Engineering Fees (10%)	\$ 1,344,445	
Furniture, Fixtures, Equipment (5%)	\$ 672,222	
Contingency (5%)	\$ 672,222	
Total Other Project Costs	\$ 3,361,112	
Option B total Project Cost	\$ 16,805,558	

POTENTIAL SAVINGS **\$ 856,043**

(Not including additional escalation if portions of the project are delayed beyond 2018)

Cost Escalation Beyond 2018				
<p>Construction costs identified above are based on a construction start in the spring of 2018. Delaying construction beyond that date could result in cost escalation due to inflation and other factors. Escalation Factor used is 3.5% per year. Actual inflation rate may vary.</p>				
	Option A	Option B		Potential Savings
Base Year 2018	\$ 17,661,600	\$ 16,805,558	\$	856,043
2019 Cost with Escalation	\$ 18,279,756	\$ 17,393,752	\$	886,004
2020 Cost with Escalation	\$ 18,919,547	\$ 18,002,533	\$	917,014
2021 Cost with Escalation	\$ 19,581,732	\$ 18,632,622	\$	949,110
2022 Cost with Escalation	\$ 20,267,092	\$ 19,284,764	\$	982,328

CONCEPTUAL DESIGN SUBMITTAL
CONSTRUCTION COST ESTIMATE
SKAGWAY RECREATION CENTER ADDITIONS
SKAGWAY, ALASKA

PREPARED FOR:

Architects Alaska
900 West 5th Avenue, Suite 403
Anchorage, Alaska 99501

December 1, 2016



HMS Project No.: 16097

NOTES REGARDING THE PREPARATION OF THIS ESTIMATE

DRAWINGS AND DOCUMENTS

Level of Documents: (3) conceptual design drawings, and mechanical and electrical narratives
Date: August 23, 2016
Provided By: Architects Alaska and their subconsultants of Anchorage, Alaska

RATES

Pricing is based on current material, equipment and freight costs.

Labor Rates: A.S. Title 36 working 60 hours per week
Premium Time: 16.70%

BIDDING ASSUMPTIONS

Contract: Standard construction contract without restrictive bidding clauses
Bidding Situation: Competitive bid assumed
Bid Date: Spring 2018
Start of Construction: Summer 2018
Months to Complete: Changes with each option

EXCLUDED COSTS

1. A/E design fees
2. Administrative and management costs
3. Furniture, furnishings and equipment (except those specifically included)
4. Remediation of contaminated soils or abatement of any hazardous materials

GENERAL

When included in HMS Inc.'s scope of services, opinions or estimates of probable construction costs are prepared on the basis of HMS Inc.'s experience and qualifications and represent HMS Inc.'s judgment as a professional generally familiar with the industry. However, since HMS Inc. has no control over the cost of labor, materials, equipment or services furnished by others, over contractor's methods of determining prices, or over competitive bidding or market conditions, HMS Inc. cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from HMS Inc.'s opinions or estimates of probable construction cost.

This estimate assumes normal escalation based on the current economic climate. While the global economic downturn appears to be moderating, it remains unclear how its effects and subsequent economic recovery will affect construction costs. HMS Inc. will continue to monitor this, as well as other international, domestic and local events, and the resulting construction climate, and will adjust costs and contingencies as deemed appropriate.

GROSS FLOOR AREA

With general cost summary.

HMS Project No.: 16097

CONCEPTUAL DESIGN COST SUMMARY

	<i>Total</i>	<i>Cost/SF</i>	<i>Area</i>
1. EXISTING REC CENTER UPGRADES	\$ 873,557	\$ 62.90	13,888 SF
2. NEW REC CENTER ADDITION	3,533,426	245.24	14,408 SF
3. ADMINISTRATION/LOBBY ADDITION	481,641	322.82	1,492 SF
4. NEW POOL ADDITION	8,839,608	775.40	11,400 SF
5. SITE WORK	401,048	21.65	18,526 SF *
TOTAL ESTIMATED CONSTRUCTION COST (BID 2018):	\$ 14,129,280	\$ 343.04	41,188 SF *

OPTION - BUILD ALL WORK AS A SINGLE CONTRACT \$ 13,444,446 \$ 326.42 41,188 SF

SAVINGS \$ 684,834 \$ 16.63 41,188 SF

* Note: Gross floor area excludes site improvements area.

HMS Project No.: 16097

1. EXISTING REC CENTER UPGRADES	QUANTITY	UNIT	UNIT RATE \$	TOTAL \$
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STRUCTURAL/ARCHITECTURAL

Boiler Room Addition

Demolish existing exterior wall	392	SF	5.50	2,156
Expand boiler room shell in future admin area	280	SF	315.00	88,200

New Exterior Restrooms (2)

Restrooms shell construction to match existing building	308	SF	300.00	92,400
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Miscellaneous Upgrades to Existing Rec Center

Demolish cardio room stairs	128	SF	7.00	896
Move new stair to different location	128	SF	78.00	9,984
Remove insulated metal siding from east wall	1,920	SF	1.30	2,496
Upgrade wall for fire rated construction	1,920	SF	5.20	9,984
Cut double door and stair openings in existing wall (2)	122	SF	8.00	976
Minor cosmetic upgrades to existing rec center	13,888	SF	15.50	215,264
Remove and replace delaminated single doors and hardware	6	EA	775.00	4,650
Remove and replace delaminated double doors and hardware	5	PRS	1550.00	7,750

MECHANICAL WORK

Plumbing fixtures and rough-ins for new restrooms	4	EA	1575.00	6,300
Extend water and sewer to restrooms	2	LOTS	750.00	1,500
4'0" fin tube baseboards in restrooms and stair	4	EA	225.00	900
Extend and connect hydronic piping from main building	4	LOTS	380.00	1,520
New 80 CFM ceiling exhaust fans, ducts and wall grilles at new restroom	2	EA	385.00	770

HMS Project No.: 16097

1. EXISTING REC CENTER UPGRADES	<i>QUANTITY</i>	<i>UNIT</i>	<i>UNIT RATE</i> \$	<i>TOTAL</i> \$
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MECHANICAL WORK (Continued)

AHU-4: Reset supply air discharge at 60° F	1	EA	75.00	75
Add new thermostats	3	EA	135.00	405
Modify ducts for gym diffusers	6	LOTS	185.00	1,110
AHU-6: Replace return air grille with new for yoga/fitness room	1	EA	165.00	165
Install duct in attic space back to air handling unit (1)	20	LF	45.00	900
Extend fire sprinkler system to additions and connect to existing	588	SF	7.00	4,116

ELECTRICAL WORK

Lighting and Power

Replace existing fixtures with LED lighting (assume 25% area)	45	EA	395.00	17,775
Additional light fixtures in boiler addition	2	EA	230.00	460
Vandal resistant LED fixtures in new restrooms	2	EA	390.00	780
Exterior LED fixtures	2	EA	445.00	890
New fixtures at stair	2	EA	280.00	560
Occupancy sensors	2	EA	220.00	440
Conduit and wiring connected to existing circuits	750	LF	8.75	6,563

Specialty Systems

Smoke detectors in new restrooms	2	EA	225.00	450
Conduit and wiring connected to existing circuits	2	LOTS	150.00	300
Upgrade fire alarm and telecom systems as necessary	13,888	SF	5.25	72,912

SUBTOTAL:

\$ 553,647

HMS Project No.: 16097

1. EXISTING REC CENTER UPGRADES	QUANTITY	UNIT	UNIT RATE \$	TOTAL \$
General Requirements, Overhead and Profit	30.00%			166,094
Design Unknowns	15.00%			107,961
Escalation to 2018 Construction at 3.50% per Annum (19 Months)	5.54%			45,855

TOTAL ESTIMATED COST: **\$ 873,557**

HMS Project No.: 16097

2. NEW REC CENTER ADDITION	<i>QUANTITY</i>	<i>UNIT</i>	<i>UNIT RATE</i> \$	<i>TOTAL</i> \$
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SUBSTRUCTURE

Foundations

Excavate and backfill, average 24" deep	684	CY	44.00	30,096
5'0"x5'0"x1'2" reinforced concrete bases (16 CY)	14	EA	750.00	10,500
24"x12" reinforced concrete footings (28 CY)	356	LF	46.00	16,376
8" reinforced concrete stem walls (33 CY)	1,246	SF	19.20	23,923
2" rigid insulation and dampproofing	1,246	SF	4.40	5,482
5/8"x6" anchor bolts, 32" o/c	134	EA	5.75	771
3/4"x6" base plate bolts	56	EA	21.00	1,176

Slab on Grade

6" subbase, compacted	172	CY	45.00	7,740
4" bar reinforced concrete slab on grade (100 CY)	7,692	SF	6.30	48,460
8'0"x10'0"x4'0" elevator pit and ladder	1	EA	3250.00	3,250

SUPERSTRUCTURE

Floor Construction

Steel framing	97,325	LBS	2.35	228,714
1 1/2" metal deck with 4" concrete topping	6,712	SF	5.80	38,930
New two flights stair construction	180	SF	57.00	10,260

Roof Structure

Base plates over grout	14	EA	48.00	672
Steel framing, girts, etc.	76,920	LBS	2.50	192,300
HSS seismic bracing	12,000	LBS	2.70	32,400

HMS Project No.: 16097

2. NEW REC CENTER ADDITION	QUANTITY	UNIT	UNIT RATE \$	TOTAL \$
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SUPERSTRUCTURE (Continued)

Roof Structure (Continued)

3/4" pressure treated plywood diaphragm and blockings	7,692	SF	2.40	18,461
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Exterior Closure

4" wall Z girts, 36" o/c	1,702	LF	5.15	8,765
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4" insulated metal siding panels fixed to girts	5,030	SF	26.00	130,780
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3'0"x7'0" insulated hollow metal double doors	2	PRS	2475.00	4,950
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Insulated double glazed fiberglass windows	602	SF	68.50	41,237
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Extra for ADA operator	1	EA	850.00	850
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ROOFING

4" Z purlins, 36" o/c	2,550	LF	5.30	13,515
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5" insulated metal roofing panels	7,692	SF	16.50	126,918
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Match existing roofing	104	LF	8.25	858
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Mechanical equipment flashings	1	LOT	350.00	350
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INTERIOR CONSTRUCTION

Partitions

Elevator shaft wall system	960	SF	7.75	7,440
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6" metal stud, 5/8" impact resistant gypboard each side, and sound batt insulation	6,832	SF	7.80	53,290
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Doors

Single door assemblies	3	EA	985.00	2,955
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Double door assemblies	9	PRS	2150.00	19,350
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Glazed double door assembly	1	PR	2775.00	2,775
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HMS Project No.: 16097

2. NEW REC CENTER ADDITION	<i>QUANTITY</i>	<i>UNIT</i>	<i>UNIT RATE</i> \$	<i>TOTAL</i> \$
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INTERIOR CONSTRUCTION (Continued)

Floor Finishes

Concrete sealer and hardener	864	SF	1.25	1,080
Rubber flooring at stair	180	SF	7.50	1,350
Walk-off carpet tiles at vestibule	224	EA	5.40	1,210
Carpet tiles at hallways, etc.	3,424	SF	5.15	17,634
Sheet vinyl flooring at janitor and elevator equipment room	200	SF	4.80	960
Cushioned athletic flooring at exercise, fitness, etc. rooms	9,516	SF	11.50	109,434
4" rubber bases	1,696	LF	2.80	4,749

Wall Finishes

Paint walls	16,960	SF	1.75	29,680
Allowance for special wall coverings	3,500	SF	5.50	19,250

Ceiling Finishes

Painted gypboard ceilings in fan room, janitor, etc.	1,064	SF	5.80	6,171
Acoustic ceilings in hallways, stair, etc.	3,828	SF	5.15	19,714
Sound absorbing panel ceiling in weight rooms, etc.	9,516	SF	6.20	58,999

Specialties

Fitness and weight room mirrors (5)	300	SF	24.75	7,425
8'0"x4'0" marker board at day camp	1	EA	930.00	930
4'0"x4'0" tack boards at day camp	6	EA	180.00	1,080
24" deep base cabinets at day camp	36	LF	185.00	6,660
24"x36"x74" wardrobes	2	EA	870.00	1,740

HMS Project No.: 16097

2. NEW REC CENTER ADDITION	<i>QUANTITY</i>	<i>UNIT</i>	<i>UNIT RATE</i> \$	<i>TOTAL</i> \$
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INTERIOR CONSTRUCTION (Continued)

Specialties (Continued)

18"x18"x18" day camp cubbies	16	EA	55.00	880
Janitor mop strip	1	EA	115.00	115
Door signage, corner guards and miscellaneous specialties allowance	1	LOT	1500.00	1,500

CONVEYING

8'0"x6'0"x8'0" cat two-stop hydraulic elevator	1	EA	75000.00	75,000
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MECHANICAL

Plumbing

Elevator sump pump and rough-in	1	EA	780.00	780
Day camp toilet fixtures and piping	2	EA	1150.00	2,300
Counter mounted sink and piping	1	EA	720.00	720
Janitor sink and piping	1	EA	850.00	850
Drinking fountains and rough-ins	2	EA	1635.00	3,270
Exterior hose bibbs and piping	2	EA	350.00	700
Fan room floor drain and piping	1	EA	330.00	330
Extend and connect DWV piping from existing building to addition	1	LOT	1250.00	1,250

HVAC

1,600 MBH oil fired boiler in extended mechanical room to serve additions	1	EA	21500.00	21,500
Boiler flue and cap	1	LOT	2500.00	2,500
Remove existing pumps	2	EA	175.00	350

HMS Project No.: 16097

2. NEW REC CENTER ADDITION	QUANTITY	UNIT	UNIT RATE \$	TOTAL \$
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MECHANICAL (Continued)

HVAC (Continued)

Hydronic pumps with VSD and DPS	2	EA	2475.00	4,950
Cabinet unit heaters in vestibule	2	EA	1150.00	2,300
Unit heater in fan room	1	EA	770.00	770
Fin tube baseboard units and valves (22)	180	LF	52.00	9,360
Duct reheat coils	12	EA	435.00	5,220
15,000 CFM, constant volume air handling unit with mixing box, filters, heating coil, and VSD, soft starting	1	EA	67500.00	67,500
160 CFM range hood and fan over stove	1	EA	545.00	545
50 CFM janitor room exhaust fan	1	EA	215.00	215
Ductwork, grilles and hangers	14,408	SF	5.75	82,846
DDC system tied into existing building	14,408	SF	4.75	68,438
Test and balance HVAC	80	HRS	150.00	12,000

Fire Protection

Wet pipe sprinkler system	14,408	SF	4.45	64,116
New fire riser connected to existing building	1	LOT	3500.00	3,500
Testing and design fee	1	LOT	3500.00	3,500

Fuel Oil System

Drain and remove existing fuel tank and piping	1	EA	850.00	850
New 3,000 gallon fuel tank and piping to serve existing building and new additions	1	LOT	24500.00	24,500
Fuel for testing	500	GALS	5.15	2,575

HMS Project No.: 16097

2. NEW REC CENTER ADDITION	QUANTITY	UNIT	UNIT RATE \$	TOTAL \$
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ELECTRICAL

Service and Distribution

Demolish existing service and distribution	1	LOT	8500.00	8,500
New 1,200 amp meter base and socket	1	EA	3800.00	3,800
Main disconnect switch	1	EA	1750.00	1,750
1,200 amp, 208Y/120 volt, 3 phase, 4 wire main distribution panel with (9) sub-feed circuit breakers and (2) 200 amp spare breakers	1	EA	18500.00	18,500
400 amp subpanel	1	EA	5200.00	5,200
200 amp subpanel	1	EA	3250.00	3,250
Elevator motor starter/disconnect switch	1	EA	990.00	990
Equipment grounding	1	LOT	1200.00	1,200
New feeders and conductors	450	LF	32.00	14,400

Lighting and Power

Exterior LED fixtures	6	EA	445.00	2,670
Fan room T8 lamp fixtures	8	EA	250.00	2,000
Hallways/vestibules LED fixtures	44	EA	275.00	12,100
Janitor and elevator room fixtures	2	EA	180.00	360
Fitness/exercise room LED fixtures	140	EA	315.00	44,100
Occupancy sensors	12	EA	280.00	3,360
LED exit signs	8	EA	320.00	2,560
Emergency light packs	10	EA	395.00	3,950
Switches, devices, motor connections, conduit and wiring	14,404	SF	4.20	60,497

HMS Project No.: 16097

2. NEW REC CENTER ADDITION	<i>QUANTITY</i>	<i>UNIT</i>	<i>UNIT RATE</i> \$	<i>TOTAL</i> \$
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ELECTRICAL (Continued)

Special Systems

New rack, horizontal cablings, Cat 6 cable, data/communications outlets, conduit and wiring	14,404	SF	3.50	50,414
New fire alarm system	14,404	SF	4.15	59,777
New CCTV security system cameras, card readers, etc.	14,404	SF	3.00	43,212
Cable TV in fitness/exercise rooms	6	RMS	1250.00	7,500
Small sound system in fitness/exercise rooms	6	RMS	1500.00	9,000

EQUIPMENT

Day camp two-plate electric stove	1	EA	885.00	885
Refrigerator	1	EA	950.00	950
Microwave oven	1	EA	300.00	300

FURNISHINGS

Entry mats (2)	144	SF	9.00	1,296
Window blinds	602	SF	10.20	6,140
Loose furniture and furnishings in exercise/fitness rooms	6	RMS		With FFE Budget

SUBTOTAL:				\$ 2,205,501
General Requirements, Overhead and Profit	32.00%			705,760
Design Unknowns	15.00%			436,689
Escalation to 2018 Construction at 3.50% per Annum (19 Months)	5.54%			185,476

TOTAL ESTIMATED COST:	\$ 3,533,426
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HMS Project No.: 16097

3. ADMINISTRATION/LOBBY ADDITION	QUANTITY	UNIT	UNIT RATE \$	TOTAL \$
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SUBSTRUCTURE

Foundations

Excavate and backfill, average 24" deep	133	CY	44.00	5,852
4'0"x4'0"x1'0" reinforced concrete bases (4 CY)	6	EA	535.00	3,210
16"x10" reinforced concrete footings (4 CY)	102	LF	32.00	3,264
8" reinforced concrete stem walls	354	SF	19.20	6,797
2" rigid insulation and dampproofing	354	SF	4.40	1,558
5/8"x6" anchor bolts, 32" o/c	38	EA	5.75	219
3/4"x10" base plate bolts	24	EA	32.00	768
6" subbase, compacted	33	CY	45.00	1,485
4" bar reinforced concrete slab on grade (20 CY)	1,492	SF	6.30	9,400

SUPERSTRUCTURE

Roof Structure

Base plates over grout	6	EA	39.00	234
Steel framing, girts, etc.	14,920	LBS	2.50	37,300
HSS bracings	4,476	LBS	2.70	12,085
3/4" pressure treated plywood diaphragm	1,492	SF	2.40	3,581

Exterior Closure

4" wall Z girts, 36" o/c	808	LF	5.15	4,161
4" insulated metal panels fixed to girts	665	SF	26.00	17,290
3'0"x7'0" insulated hollow metal single door	1	EA	1150.00	1,150

HMS Project No.: 16097

3. ADMINISTRATION/LOBBY ADDITION	<i>QUANTITY</i>	<i>UNIT</i>	<i>UNIT RATE</i> \$	<i>TOTAL</i> \$
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SUPERSTRUCTURE (Continued)

Exterior Closure (Continued)

3'0"x7'0" insulated hollow metal glazed double door	1	PR	2875.00	2,875
Insulated double glazed fiberglass windows	80	SF	68.00	5,440
Extra for ADA operator	1	EA	850.00	850
Facility name letters mounted at main entry	1	LOT	1250.00	1,250

Roofing

5/8" substrate	1,492	SF	1.30	1,940
(2) layers 3" rigid insulation	1,492	SF	2.75	4,103
5/8" cover board	1,492	SF	1.50	2,238
Roofing felt	1,492	SF	1.10	1,641
Metal roofing panels and flashings	1,492	SF	10.30	15,368
Match existing roofing	172	LF	8.25	1,419
Mechanical equipment flashings	1	LOT	300.00	300

INTERIOR CONSTRUCTION

Partitions

6" metal studs, 5/8" impact resistant gypboard, each side, and sound batts	1,450	SF	7.80	11,310
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Doors

Single door assemblies	6	EA	985.00	5,910
Double door assembly at mechanical	1	PR	1950.00	1,950
Glazed double door assembly	1	PR	2775.00	2,775
Temper glazed relites (4)	64	SF	43.00	2,752

HMS Project No.: 16097

3. ADMINISTRATION/LOBBY ADDITION	QUANTITY	UNIT	UNIT RATE \$	TOTAL \$
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INTERIOR CONSTRUCTION (Continued)

Floor Finishes

Sheet vinyl flooring at storage	96	SF	4.80	461
Walk-off carpet tiles at vestibules	420	SF	5.40	2,268
Carpet tiles elsewhere	976	SF	5.15	5,026
4" rubber base	414	LF	2.80	1,159

Wall Finishes

Paint walls	3,726	SF	1.75	6,521
Allowance for special wall coverings	750	SF	5.50	4,125

Ceiling Finishes

Acoustic ceilings	1,492	SF	5.15	7,684
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Specialties

4'0"x4'0" tack boards	6	EA	180.00	1,080
24" deep raised counter receptionist casework	26	LF	335.00	8,710
Miscellaneous specialties	1	LOT	850.00	850

MECHANICAL

Plumbing

Roof drains and leaders	2	EA	1350.00	2,700
Drinking fountain and rough-in	1	EA	1635.00	1,635

HVAC

Extend hydronic piping from mechanical room	40	LF	47.00	1,880
Cabinet unit heaters	2	EA	1150.00	2,300

HMS Project No.: 16097

3. ADMINISTRATION/LOBBY ADDITION	QUANTITY	UNIT	UNIT RATE \$	TOTAL \$
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MECHANICAL (Continued)

HVAC (Continued)

Fin tube baseboards and valves	42	LF	52.00	2,184
Duct reheat coils	2	EA	435.00	870
Ductwork, grilles and hangers connected to rec center addition system	1,492	SF	5.75	8,579
Test and balance	16	HRS	150.00	2,400
DDC system test and balance	1,492	SF	4.75	7,087

Special Systems

Wet pipe sprinkler system connected to rec center addition	1,492	SF	4.45	6,639
Testing and fee	1	LOT	1200.00	1,200

ELECTRICAL

Service and Distribution

200 amp subpanel	1	EA	3250.00	3,250
Feeder and conductors connected to rec center addition	80	LF	28.00	2,240

Lighting and Power

Exterior LED fixtures	2	EA	445.00	890
Storage fixture	1	EA	180.00	180
LED fixtures in remaining area	18	EA	270.00	4,860
4" diameter LED track lighting at receptionist	4	EA	75.00	300
Occupancy sensors	6	EA	280.00	1,680
LED exit signs	3	EA	320.00	960

HMS Project No.: 16097

3. ADMINISTRATION/LOBBY ADDITION	<i>QUANTITY</i>	<i>UNIT</i>	<i>UNIT RATE</i> \$	<i>TOTAL</i> \$
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ELECTRICAL (Continued)

Lighting and Power (Continued)

Emergency light packs	3	EA	390.00	1,170
Switches, devices, conduit and wiring	1,492	SF	5.70	8,504

Special Systems

Extend telecommunications from rec center addition	1,492	SF	4.25	6,341
Extend fire alarm system from rec center addition	1,492	SF	5.20	7,758
Extend CCTV/security system from rec center addition	1,492	SF	4.00	5,968
Extend PA system from rec center addition	1	LOT	2500.00	2,500

FURNISHINGS

Entry mats (2)	96	SF	9.00	864
Window blinds	64	SF	10.20	653
Loose furniture and furnishings in offices and receptionist	1	LOT		With FFE Budget

SUBTOTAL: \$ 293,951

General Requirements, Overhead and Profit	35.00%			102,883
Design Unknowns	15.00%			59,525
Escalation to 2018 Construction at 3.50% per Annum (19 Months)	5.54%			25,282

TOTAL ESTIMATED COST: \$ 481,641

HMS Project No.: 16097

4. NEW POOL ADDITION	QUANTITY	UNIT	UNIT RATE \$	TOTAL \$
Pool building construction cost per U.S. Pool quote based on 10,000 SF building, including mark-ups	1	LOT	6175000.00	6,175,000
Small stainless steel pool cost	1	LOT	290000.00	290,000
Large stainless steel pool cost	1	LOT	990000.00	990,000
Heat recovery system cost	1	LOT	710000.00	710,000
Additional cost for fan room construction, including mark-ups (not included in pool bid)	1,560	SF	135.00	210,600
SUBTOTAL:				\$ 8,375,600
Escalation to 2018 Construction at 3.50% per Annum (19 Months)	5.54%			464,008
TOTAL ESTIMATED COST:				\$ 8,839,608

HMS Project No.: 16097

5. SITE WORK	<i>QUANTITY</i>	<i>UNIT</i>	<i>UNIT RATE</i> \$	<i>TOTAL</i> \$
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CLEARING AND GRUBBING

Clear site for improvements	0.43	AC	6500.00	2,795
Excavate and dispose, average 24" deep	1,373	CY	8.75	12,014
18" deep NFS fill, compacted	1,235	CY	32.75	40,446

EXPAND GRAVEL PARKING

6" D1, compacted	146	CY	48.00	7,008
Finish grade	6,320	SF	0.20	1,264

CONCRETE WALKS

6" subbase, compacted	96	CY	32.75	3,144
4" mesh reinforced, broom finished walk	4,352	SF	5.70	24,806

PICNIC AREA

12" imported topsoil	142	CY	78.00	11,076
Grass seeding	3,456	SF	0.50	1,728
Picnic tables	4	EA	875.00	3,500
Trash cans	2	EA	650.00	1,300

PLAYGROUND

Safety surfacing over fill at play structure	1,056	SF	18.75	19,800
Grass seeding over topsoil	3,344	SF	0.75	2,508
Relocate play structure	1	EA	1250.00	1,250
New multi-function play structure	1	EA	47500.00	47,500
New smaller play structure	1	EA	15700.00	15,700
4'0" fencing	284	LF	33.00	9,372

HMS Project No.: 16097

5. SITE WORK	<i>QUANTITY</i>	<i>UNIT</i>	<i>UNIT RATE</i> \$	<i>TOTAL</i> \$
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PLAYGROUND (Continued)

4'0"x4'0" gate	1	EA	570.00	570
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LANDSCAPING

4'0" topsoil at disturbed area	223	CY	78.00	17,394
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Grass seeding	0.38	AC	430.00	163
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Trees	5	EA	550.00	2,750
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Shrubs	4	EA	75.00	300
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AREA LIGHTING

20'0" poles, bases and LED fixtures at parking	4	EA	2975.00	11,900
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12'0" poles, bases and LED fixtures at picnic	6	EA	1845.00	11,070
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Photocell and contactor	1	EA	550.00	550
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1" diameter PVC buried conduits and trenching	600	LF	8.75	5,250
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#12 wiring (3)	2,370	LF	0.65	1,541
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Power connections to building panel breakers	1	LOT	950.00	950
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Test and tag lighting	1	LOT	500.00	500
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<i>SUBTOTAL:</i>				\$ 258,149
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General Requirements, Overhead and Profit	28.00%			72,282
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Design Unknowns	15.00%			49,565
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Escalation to 2018 Construction at 3.50% per Annum (19 Months)	5.54%			21,052
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TOTAL ESTIMATED COST:				\$ 401,048
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HMS Project No.: 16097

OPTION - BID ENTIRE PROJECT AS A SINGLE CONTRACT INSTEAD OF STAND ALONE PROJECTS	QUANTITY	UNIT	UNIT RATE \$	TOTAL \$
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Note: Direct work costs for the following from individual estimates.

1. Existing rec center upgrades	1	LOT	571422.00	571,422
2. New rec center addition	1	LOT	2205501.00	2,205,501
3. Administration/lobby addition	1	LOT	293951.00	293,951
4. New pool addition	1	LOT	5325000.00	5,325,000
5. Site improvements	1	LOT	258149.00	258,149
SUBTOTAL:				\$ 8,654,023
General Requirements, Overhead and Profit	28.00%			2,423,126
Design Unknowns	15.00%			1,661,572
Escalation to 2018 Bids	5.54%			705,725

TOTAL ESTIMATED COST:	\$ 13,444,446
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