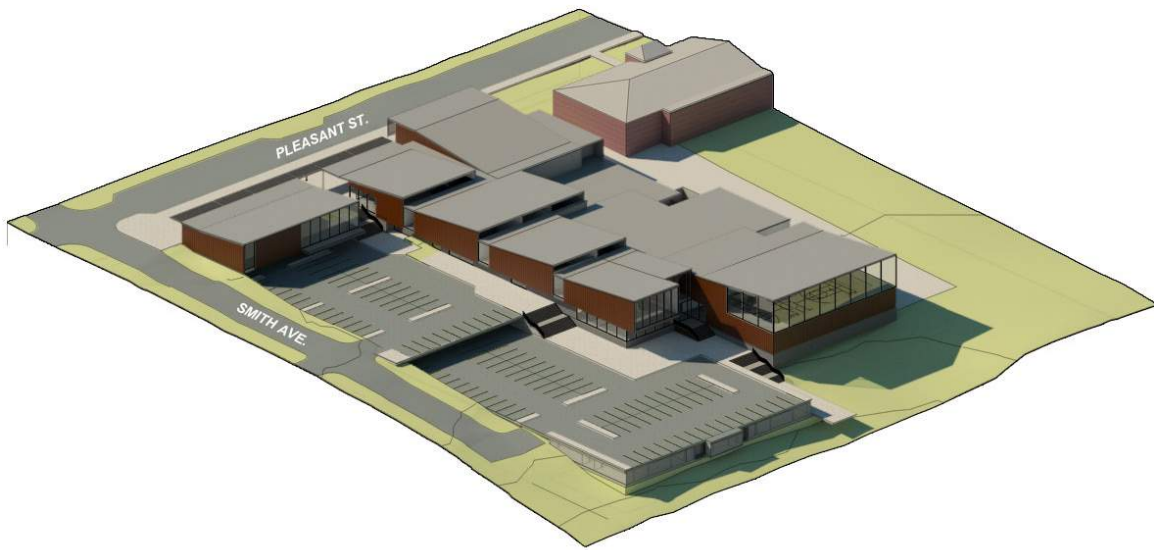




# SANDY COMMUNITY CENTER STUDY

OCTOBER 2018



**opsis**

**WALKER | MACY**





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## **Participants**

### **City of Sandy**

Kim Yamashita  
Tanya Richardson

### **Design Team**

Opsis Architecture  
Ballard\*King  
Water Technologies  
Interface  
Catena  
Walker Macy



# 1. Executive Summary





# Executive Summary

The purpose of this feasibility study was to evaluate the existing Olin Bignall Aquatics Center Building and former Cedar Ridge Middle School building. After analyzing the existing conditions the study included how the placement of community center, active use space and new aquatics would interface with the existing structures.

## Existing Conditions Analysis

Structural: The building is structurally acceptable to remain as a pool facility. Additions or structural alterations to the original building will likely trigger strengthening of the existing structure.

Mechanical, Electrical Plumbing: The mechanical systems, although functional, should be considered for major replacement and overhaul.

Aquatic: The total aggregated evaluation score was rated at 41.25 out of 100. This score is an indication of the condition of the aquatic amenities. Recommendations are represented at three levels of investment for the improvement of the facility.

Park: Existing lawn fields currently provide very limited park-like amenities. The existing skate park is due for repair, but is currently functioning. As part of developing the lower field, a geotechnical analysis is recommended in order to understand the extents of an historic landfill in the area.

## Program Analysis

A series of focus group interviews were conducted to establish the community needs for the facility. The activities and program spaces that support them became the basis for the development of the space programs for a partly renovated and majority new facility. Priority of functions included the need for classrooms, event spaces, a gymnasium and pool expansion with improvements to existing. All of the functions were strongly desired to generate revenue. To accompany the program requirements, Ballard\*King conducted a market analysis to assess the current and future market needs, services of similar facilities in the region and an operational analysis for each of the program options. The existing Olin Bignall Aquatic Center is in need of renovation and the existing Sandy Community/ Senior Center has limited space to serve the recreation needs of the community. There is no existing, comprehensive, public or non-profit recreation, sports and fitness facilities in Sandy. Both market areas the center would be focused in are expected to grow.

## Concept

Building Concept: The programmatic functions of the building are situated along a two-story circulation spine which runs down the center of the building leading north to south. This main corridor connects the street entry to the park beyond.

Main Program Functions:

- Two Court Gym and Elevated Track
- Recreation Pool
- Lap Pool
- Hot Tub
- Cardio / Weights Room
- Rock Climbing
- Multipurpose Room
- Classrooms
- Partnership Space
- Administration
- Parking Stalls

Park Concept: Programmatically, the upper tier of the park would primarily accommodate family and group activities. The lower tier of the park would allow for active sport activities while also providing flexible event space.

## Phasing

### Building Concept:

The first phase of the aquatic community center should focus on making improvements to the existing aquatic center. This will keep this key recreation amenity operational in the community.

The second phase would incorporate a new recreation pool, administration area, partnership space, and changing rooms. Renovation of existing upper parking area and locker rooms are also included.

The third phase will add a 2-court gym with running track and other active recreation purposed spaces. Demolition of the 2nd floor of the middle school structure for parking deck construction. Renovation of existing middle school building's 1st level to include a classroom, event space, IT program and general support space.

### Park Concept:

The first phase of the park would rehabilitate the upper field into a community park including programs such as a playground, basketball court, picnic area, community garden and updated skate park.

The second phase would develop a substantial portion of the lower field by first removing the existing sport track. Programs built into this phase would include a large flexible lawn space for a variety of uses, an exercise circuit pathway, and a bike pump track. New vegetation would be installed in this phase in order to tie into the adjacent forest to the north while providing areas of respite and interest for future users.

Phase three would add an amphitheater built into the existing hillside which could host various civic or private outdoor events. This phase would also establish a network of ADA accessible routes to easily traverse between pool and park and other portions of the site.

The fourth phase would develop the far north end of the park with additional active sport functions including a challenge course for all ages. Additional vegetation would help blend the site into the forest with the use of native plant species.

## Program Costs

To accompany the Concept, a program cost model was developed for the final option's demolition, building cost range and site development.

### Building Concept:

Phase 1:	\$ 10,138,141
Phase 2:	\$ 23,543,813
Phase 3:	\$ 19,781,450
Total	\$ 53,463,404

### Park Concept:

Phase 1	\$ 3,324,880
Phase 2	\$ 2,270,580
Phase 3	\$ 2,499,900
Phase 4	\$ 1,010,490
Total	\$ 9,105,850







## 2. Existing Conditions

Structural **Catena Engineers**

Mechanical, Plumbing, Electrical **Interface Engineers**

Aquatic **Water Technologies Inc**







January 17, 2018

Mr. Mark Stoller  
opsis architecture LLP  
920 NW 17<sup>th</sup> Avenue  
Portland, OR 97209

**Project: Sandy Community Center Study**  
catena project number: 2017140.00

Dear Mark:

We conducted a review of the existing Olin Bignall Aquatic Center Building and the former Cedar Ridge Middle School buildings located on Alt Avenue in Sandy, Oregon. We reviewed the general conditions of the existing building structures. It is our understanding that the City of Sandy intends to use the compiled assessment to formalize decisions for development of buildings into a comprehensive community center.

Our report is based on a site walkthrough conducted November 27, 2017, and review of the available original drawings. The following drawings were available at the time of our evaluation:

- Swimming Pool drawings 102 through 105 dated March 21, 1966, by Edmundson Kochendofer Kennedy & Travers Architects and Engineers.
- Sandy Elementary School drawings 102, 103, 105, 106, 204, and 206 by Edmundson Kochendofer Kennedy & Travers Architects and Engineers. The drawings are not dated.
- Upper School Addition drawings A-2, A-3, A-5, A-6, and S-1 through S-5 dated January 4, 1973, by Bloodworth, Hawes, Peterson & Associates Architects.

## **Building Description**

### *Sandy Pool*

The Sandy Pool facility consists of a single-story lobby and locker room facility and high-volume pool arena above a daylight basement pool equipment room and storage rooms. The building is 165 feet by 116 feet in plan.

- The majority of the pool and lobby floor is a concrete slab-on-grade. Floor areas above the basement are cast-in-place concrete construction.
- The lobby roof and mechanical mezzanine is constructed of typical light wood-framed construction.

**a connected series of related elements**

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- The roof over the pool arena is constructed of tongue and groove decking supported by glue-laminated purlins supported by glue-laminated girders. Girders are supported on concrete piers at the perimeter walls and on a pair of 11-foot trusses spanning the length of the pool arena.
- The basement level wraps the west, north, and east sides of the pool. Walls are of cast-in-place concrete construction with a concrete slab-on-grade.
- Foundations consist of traditional spread and strip footings.
- Perimeter walls provide resistance to lateral loads from wind and earthquakes. Walls consist of concrete stem and basement walls wrapping the pool arena with partially grouted CMU walls to 10 feet above the pool finish floor level. Wood stud framed walls extend from the top of the CMU walls to the roof framing.

### *Sandy Elementary School*

The Sandy Elementary School building was originally constructed in the 1950s. The building is two stories with a daylight basement measuring 30,000 square feet.

- The ground floor is a concrete slab-on-grade. The south and east elevations consist of cast-in-place concrete basement walls. The north and west elevations are primarily glazed creating the daylight condition.
- The upper floor level is constructed of 2x8 joists at 16 inches o.c. spanning to glue-laminated beams at 10 feet o.c. Floor sheathing is not indicated on the drawings.
- The gymnasium floor is a concrete slab-on-grade.
- Roof framing above the classroom wing is constructed of 2x6 joists at 16 inches o.c. spanning to glue-laminated beams at 10 feet o.c. Roof sheathing is not indicated on the drawings.
- Roof framing above the gymnasium consists of bulb-tees at 32 inches o.c. spanning to open web steel joists supported by steel beams and columns transferring loads to the foundations.
- Foundations consist of traditional spread and strip footings.
- Exterior cladding consists of brick veneer and glazing.
- Classrooms and corridors are defined and separated by wood stud framed common walls. Walls around the gymnasium are cast-in-place concrete construction. These walls provide resistance to lateral loads from wind and earthquakes.

### *Upper School Addition*

The Upper School Addition is two-stories with a daylight basement measuring 26,000 square feet.

- The ground floor is a concrete slab-on-grade.
- Reinforced concrete basement walls retain the site soils along the south, east, and west elevations.

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catena project number: 2017140.00

- The upper floor and roof levels are constructed of reinforced concrete pan joists with 3 inches topping slabs supported by reinforced concrete beams.
- Beams are supported by reinforced concrete columns.
- Roof framing above the gymnasium consists of bulb-tees at 32 inches o.c. spanning to open web steel joists supported by steel beams and columns transferring loads to the foundations.
- Foundations consist of traditional spread and strip footings.
- Perimeter walls provide resistance to lateral loads from wind and earthquakes. Infill CMU walls create the façade of the building.

### Summary

The following items were observed during our walkthrough and document review of the buildings:

#### *Sandy Pool*

1. Basis of design for the pool arena is likely the 1962 Uniform Building Code (UBC). Early building codes, such as the 1962 UBC, did not consider the seismicity of the Pacific Northwest. Nor did they consider ductile detailing requirements present codes require.
2. The perimeter wall construction does not appear to consider out-of-plane loading criteria and has limited anchorage to the building structure roof.
3. Corrosion is apparent in areas of the basement wrapping the pool.
4. Corrosion is apparent within the pool equipment room.

In our opinion, the building is structurally acceptable to remain as a pool facility. The observed deterioration is typical of a building of this vintage and construction. The items identified can be corrected through established maintenance and upkeep. Any addition or modification to the building structure will likely require strengthening of the structural elements. The building code has changed significantly since the building's original construction. Additions or structural alterations to the original building will likely trigger strengthening of the existing structure.

#### *Sandy Elementary School*

1. Basis of design for the building is unknown. It is likely an early edition of the Uniform Building Code (UBC). Early building codes did not consider the seismicity of the Pacific Northwest or ductile detailing practices present in current codes.
2. The glazing along the entire north elevation creates a weak story. Weak stories contribute to poor structural performance during earthquakes and can lead to collapse.

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3. The perimeter wall construction at the Gymnasium does not appear to consider out-of-plane loading criteria and has limited anchorage to the building structure roof.
4. Drawings do not indicate the support and attachment of the brick veneer to the structure.

In our opinion, the building is structurally acceptable to remain as a school classroom building. The observed deterioration is typical of a building of this vintage and construction. The items identified can be corrected through established maintenance and upkeep. Any addition or modification to the building structure will likely require strengthening of the structural elements. The building code has changed significantly since the building's original construction. Additions or structural alterations to the original building will likely trigger strengthening of the existing structure.

#### *Upper School Addition*

1. Basis of design for the Upper School Addition is the 1970 Uniform Building Code (UBC). Early building codes, such as the 1970 UBC, did not consider the seismicity of the Pacific Northwest or ductile detailing practices present in current codes.
2. The connection covered walkway link between the original Elementary School and the Upper School Addition appears to rely upon cantilevered columns to resist lateral loads due to wind and earthquakes. The CMU columns are lightly reinforced with little confinement.
3. The perimeter walls appear to be anchored to the floor slabs.

In our opinion, the building is structurally acceptable to remain as a school classroom building. Of the three buildings, the Upper School Addition has the most flexibility in terms of possible alterations due to its construction type and vintage. Any addition or modification to the building structure will likely require strengthening of the structural elements. The building code has changed significantly since the building's original construction. Additions or structural alterations to the original building will likely trigger strengthening of the existing structure.



**Limitations**

The opinions and recommendations presented in this report were developed with the care commonly used as the state-of-practice of the profession. No other warranties are included, either expressed or implied, as to the professional advice included in this report. This report has been prepared for Opsis Architects to be used in developing a due diligence report for the City of Sandy, Oregon. This report has not been prepared for use by other parties and may not contain sufficient information for purposes of other parties or uses.

If you have any comments or questions, please call.

Sincerely,

catena consulting engineers



Jared O. W. Lewis, SE, PE  
Principal

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Photo 1: Olin Y. Bignall Aquatic Center.

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Photo 2: Deterioration at Aquatic Center entry cover posts.

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Photo 3: Underside of pool arena roof.

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Photo 4: Corrosion along basement wall around pool perimeter.

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Photo 5: Corrosion of slab within pool equipment room.

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Photo 6: North elevation – Sandy Elementary School.

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Photo 7: Gymnasium – Sandy Elementary School.

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Photo 8: Typical classroom – Sandy Elementary School.

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Photo 9: South Elevation – Upper School Addition.

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# MEP Building Assessment Report

**Sandy Community Center  
2017-0559**

**Prepared for:  
Opsis Architecture**

**Prepared by:  
Jeffrey Glanville, EIT, LEED AP, CDT  
Rick Silenzi, Mechanical Associate**

**January 12, 2018**



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# 1.0 Project Description

## 1.1 General Project Description

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This report evaluates the mechanical, electrical and plumbing systems of three buildings located in Sandy, Oregon. The project site consists of an Aquatic Center built in 1966, a 1950's Middle School and adjoining 1974 addition, and a detached building built in 1990 as a middle school expansion. Together these buildings sit on a site to be renovated into a new Sandy Community Center.

## 1.2 Project Scope

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This report provides an overall building conditions assessment including the following:

- Evaluation of building systems for mechanical, electrical, plumbing, fire sprinklers if they exist, fire alarm, low voltage, etc.
- Determination of Building Viability for moving forward.
- Recommendations for how to move forward with MEP system remediation of deficiencies.

# 2.0 Mechanical Systems

## 2.1 Aquatic Center

---

### Description

The Aquatic Center consists of an entry lobby, office area and locker rooms that sit in front of the main pool room. The building also has a basement that occupies an area surrounding the pool. Heating for the building is provided by a steam boiler located in the basement of the building. The boiler is an old oil-fired boiler, original to the building, that has been converted to natural gas. Steam is distributed to air handlers that provide heat to the building. Steam condensate is then piped back to the boiler. The boiler flue extends out to a stack at the rear of the building which terminates above the roof.

Heating and ventilation for the lobby and locker rooms is provided by a multi zone air handling unit located in a mezzanine over the lobby. Supply and return air is ducted from ceiling grilles in this area. This mezzanine also houses two air handlers that supply air to the pool room. No mechanical cooling is provided for any of these units. Supply air for the pool room is ducted from the mezzanine down to the basement and distributed around the perimeter of the pool through linear floor grilles. The air distribution around the pool is comprised of a mix of air tunnels and ducted air. Located above the pool in a second mechanical mezzanine are two exhaust fans the remove air from the pool room. It appears that these fans function in an economizer mode in conjunction with the two supply fans to fully ventilate the pool room. Other small general exhaust fans are provided for locker and restroom areas.

The basement houses rooms for the boiler, pool equipment, electrical and chemical storage. It also contained many rooms that seemed to have been added over the years for storage and other occupancy. Ventilation for these spaces appeared make shift with a mix of supply grilles from the pool ductwork and miscellaneous exhaust fans.

### General Condition

The boiler is old and out of date. The controls appear functional and are a mix of older pneumatic components and newer electronic parts. Piping is old and missing insulation in many places.



Figure M1: Steam Boiler



Figure M2: Boiler Room and Piping

The air handlers in the mezzanine look to be in fair condition. Piping and ductwork insulation is failing or missing altogether. Some controls have been interfaced with an electronic system but are still mostly pneumatic.



Figure M3: Air Handler and Controls



Figure M4: Damaged Ductwork Insulation

Supply grilles around the pool deck were in fair condition with some corrosion. Supply air seemed to be adequate and the air quality in the pool room was good at the time of our visit. There were no signs of excess humidity and no excessive odors present.



Figure M5: Pool Room



Figure M6: Pool Deck Supply Grilles

### Code Issues

Ventilation rates in all areas except the basement appear to meet code requirements. There may be a code issue in the basement where chemicals and liquid carbon dioxide are being stored in the electrical room.

### Recommendations

The mechanical systems, although functional, should be considered for major replacement and overhaul. Depending on the scope of the remodel, work should include the following.

- The boiler system should be considered for replacement. It has been in service beyond its expected service life. It should be replaced with a modern high efficiency condensing steam boiler.
- Air handlers and fans should be cleaned and serviced. If a major renovation is anticipated, they should be replaced.
- Ductwork and piping should be completely reinsulated.
- Ductwork and air handlers should be internally cleaned and inspected.
- Controls should also be upgraded to modern digital controls.

## 2.2 1950's Middle School and Addition

---

### Description

The Middle School consists of 2-story classroom wing, Gym, and 2-story classroom wing addition. The gym also contains a stage and doubles as an auditorium. The classrooms in the original building and addition are heated by unit ventilators with steam coils at the perimeter. The Gym is heated by two heating and ventilating units located in fan rooms above the stage area. There are a number of steam radiators and steam convectors located in offices and vestibules in the non-classroom areas of the school. Central exhaust fans in the fan rooms also provide general and restroom exhaust. No mechanical cooling was observed in this school.

The ground level of the building contains a large boiler room with an original oil fired steam boiler and a newer gas fired steam boiler. The original oil fired boiler has also been converted to natural gas. The newer steam boiler appears to have been installed around 2004. Both boilers feed a common steam header where loads are tapped from. Steam from the boiler room is then piped to unit ventilators, steam coils, convectors and radiators throughout the building. Steam condensate is then piped back to the boiler. The boiler flue extends out to a stack at the rear of the building which terminates above the roof. The boiler room in the middle school also provides heating for the 1990 addition to the north.

A steam to hot water converter provides heating water to the 1990 addition. Heating water supply and return piping is buried between the two buildings

### General Condition

The boiler room at the middle school looked clean and fairly well maintained. Piping and equipment were intact and insulation was present. The larger of the two boilers however is old and out of date. The controls appear functional and are a mix of older pneumatic components and some electronic.



Figure M7: Original Steam Boiler



Figure M8: Newer Steam Boiler

The unit ventilators at the perimeter walls in the classrooms have reached the end of their useful life. The air handlers in the gym were not accessible at the time of this visit. The assumption is made that they are original to the building and are of similar age and condition to the rest of the equipment in the building.



Figure M9: Unit Ventilator



Figure M10: Steam Convectors at Vestibule

Controls for the most part appeared to be pneumatic and manual. It was not clear to what degree they still function but with the overall age of the building, replacement is recommended.



Figure M11: Boiler Room Controls



Figure M12: Manual Gym Controls

### Code Issues

None observed at the time of the visit.

### Recommendations

It is our understanding that this building may be fully demolished. If any portion of the building is going to be reused or remodeled, the boiler plant will have to remain functional. If needed, a new smaller high efficiency boiler could be installed to provide heat for any portions of the building that remain. A new boiler room would need to be provided. HVAC in any of the areas of the building to remain should be replaced. If the Gym is to remain functional when the rest of the building is being demolished, a heat source will need to be provided. Consideration should be given to providing air conditioning in any areas to remain.

## 2.3 1990 Middle School Expansion

---

### Description

The Middle School expansion is a 2-story building that houses classrooms on both levels that include science, music, home economics media center and shop space. Heating water is piped underground from the Middle School boiler room to provide heat to the building. Classrooms are heated with unit ventilators at the perimeter of the classrooms. The central core and office areas are ventilated by a central fan system located in a lower level fan room. Air from this unit is ducted to floor and ceiling grilles throughout the areas served. Heating water is distributed to the central fan unit and all unit ventilators. Chilled water is also piped to all equipment but was installed for future connection. No cooling was ever installed but the equipment is ready for it. Controls in this building are also pneumatic. Several rooftop exhaust fans provide exhaust for the various areas of the building.

### General Condition

Most of the visible equipment in the building is in fair condition. Access was not available to the fan room at the time of the visit. Also, we did not access the roof to see the exhaust fans. Given the age of the building however, most of the equipment is approaching 30 years in service which would put it at the end of its useful life.



*Figure M13: Unit Ventilator*



*Figure M14: Pneumatic T-Stat*

### **Code Issues**

None observed at the time of the visit.

### **Recommendations**

Plans for this building are being developed. Since the source for the heating in this building are the boilers in the Middle School main building, a heating source will need to be provided if the boiler room is part of the demolition. Since this building is set up for heating and cooling, both could be provided with the addition of a new boiler and air cooled chiller.

Work for this building would include but not be limited to the following:

- Installation of a new high efficiency heating water condensing boiler and connection to the existing system.
- Replacement of unit ventilators.
- Inspect, repair, and clean ductwork. Replace as necessary.
- Replace heating water coils.
- Replace supply air handling unit and exhaust fans.
- Install air cooled chiller if cooling in the building is desired.

# 3.0 Plumbing Systems

## 3.1 Aquatic Center

### Description

The building is connected to the city water system with a 3” main entering the building from the east. Waste and vent piping is cast iron. A 4” sanitary sewer main exits underground in the NE corner of the building. Domestic hot water is provided by a steam to hot water converter located in the boiler room. From limited observation, hot and cold water appears to be piped throughout the building to all fixtures in galvanized piping. This would be typical for this era building construction. Plumbing fixtures are original to the building and utilize flush valves.

### General Condition

The domestic water piping appeared to be in poor condition. Insulation on most piping was damaged. The water heater is showing signs of corrosion and is at the end of its useful life. Plumbing fixtures throughout the building are old and in disrepair. Waste piping was not examined but could be scoped to determine the interior condition of the piping.



Figure P1: Hot Water Converter



Figure P2: Cold Water Header



Figure P3: Janitor Sink



Figure P4: Floor Mounted Urinals



Figure P5: Typical Water Closet

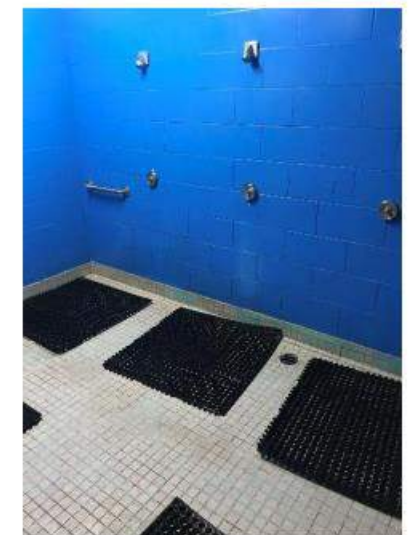


Figure P6: Typical Showers



## Recommendations

The galvanized water piping was not internally inspected, but due to its age should be replaced. The water heater would be replaced with a new gas fired high efficiency condensing unit. All new plumbing fixtures should be provided. The 3" main is adequate to serve the building renovation but available pressure at the street has not yet been verified.

New hot and cold copper piping mains should be installed throughout the building.

A new hot water system would be provided in the basement to serve all fixtures. The system would consist of two 120 gallon gas fired condensing water heaters and a storage tank located in the basement. Hot water would be piped throughout the floors in copper piping. Pex piping could be run from various centralized location at each restroom to the fixtures themselves. New code compliant low flow water fixtures would be provided in all locations.

## 3.2 1950's Middle School and Addition

### Description

The plumbing systems in the Middle School are of similar age and condition as the Aquatic Center. Hot water is provided by a new 100 gallon gas fired condensing water heater located in the boiler room. Piping though is galvanized and plumbing fixtures look original to the building. Waste and vent piping was cast iron and still intact. Insulation was in fair condition. Domestic water enters the building on the west side from a site water line that also serves the aquatic center. Meters appear to be installed inside each building and not on the site as typically done.

### General Condition

Most of the piping and fixtures were in poor condition similar to the Aquatic Center. The plumbing equipment in the boiler room was still functional and in good condition.



Figure P7: Existing Wash Basin



Figure P8: Typical Water Closet



Figure P9: New Water Heater

## Recommendations

If the building were going to be reused or remodeled, all piping and fixtures in the building should be replaced with new and modern materials. The water heater could be re-used and relocated if required.

### 3.3 1990 Middle School Expansion

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#### Description

Domestic hot and cold water for this building are piped underground from the Middle School boiler room. This building has no independent connections for water service. Waste piping leaves the building on the east side and connects to the sanitary sewer system to the east. Plumbing piping was not observable without some demolition so it's type and condition are unknown. It is also assumed to be galvanized.

#### General Condition

The condition of the plumbing piping is unknown. Fixtures were in fair condition.



Figure P10: Existing Wash Basin



Figure P11: Typical Water Closets



Figure P12: Floor Mounted Urinals

#### Recommendations

Similarly to the Middle School, if the building were going to be reused or remodeled, all piping and fixtures in the building be replaced with newer and modern materials. If cost were an issue they could however be reused. Piping should be examined for type and condition and replaced if necessary. Due to its age though it is assumed this would be necessary.

Since the building has no independent water services, if the entire or any portion of this building were to remain and the middle school be demolished, new domestic water service would be required for this building. A new water heater would need to be installed in a mechanical room to provide hot water.

## 4.0 Fire Protection Systems

### 4.1 Sprinkler Systems

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#### **Description**

None of the buildings currently have fire sprinkler systems installed.

#### **Recommendations**

Install new sprinkler systems designed to meet NFPA requirements.

The fire protection utility services for each building would include one firewater connection to the public water main. Water would enter the building from the public system connection and pass through a double check detector assembly located in the fire water service. The renovated buildings would be fully protected by an automatic wet sprinkler system. Areas and other spaces subject to temperatures of 40 degrees Fahrenheit and below will be protected by a dry pipe sprinkler system. Quick response sprinklers will be provided in Light Hazard areas. Hanging, sway bracing and branch line restraints will be installed per NFPA 13. Sprinklers will be a bidder design system, and will be installed in accordance with NFPA-13 and 14.

# 5.0 Electrical Systems

## 5.1 Aquatic Center

### Description

Utility power to the building is provided by Portland General Electric via an overhead feeder originating from a utility pole located on Strauss Avenue, across the existing schoolyard to the west. The utility meter number is 31041295 and is located on the exterior of the basement entry.



Figure E1: Utility Overhead Feed



Figure E2: Main Electrical Service

The main distribution board is located in the basement of the building and is a 208Y/120V, 600A, 3-phase, 4-wire configuration service. It has a 500-amp main breaker, and feeds panelboards A, B, C, E, and the pool pump system via fusible switches. The distribution board, manufactured by Coast Electric, is original to the building, as are the panelboards. Panelboard B, located adjacent to the distribution board, serves the pump room loads and other basement areas. Panelboard A is located in the main floor office and serves the lighting and receptacles throughout the pool and locker room spaces. Panelboard C is located in the attic and primarily serves HVAC loads such as the pool supply units and exhaust fans. Panelboard E is also in the basement electrical room and serves the exit signs and chlorine alarm.

The branch wiring could not be observed during the visit but is assumed to be outdated and nearing its useful life in many areas. Throughout the building, surface mounted raceway was observed to feed receptacles that had been added on through the years.



Figure E3: Surface mounted raceway



Figure E4: Pool Area Luminaires

Lighting within the building consists primarily of fluorescent, T8 lamp luminaires and incandescent surface mounted fixtures, with multiple fixtures noted to have broken or missing lenses. The lighting is controlled via wall switches throughout, as the original construction predated occupancy sensor control. Egress lighting is limited to the use of wall-pack / exit sign combination units, and possibly battery packs in the basement classroom troffers.

The building has a fiber cable service terminating in the main office, with a shelf-mounted router and wireless access point at that location.



Figure E5: Fiber Service

The fire alarm system in the pool building appeared to consist of a single Simplex pull station in the main office, and is believed to tie into an adjacent building's system.

### Code Issues

While panelboard E serves the exit signs, there is no existing generator serving the building, therefore all egress lighting and exit signs by code should be provided with battery backup devices.

### Recommendation

The existing service is adequately sized to serve the existing pool facility, but should the renovation of the pool building add sufficient load, the service may need to be upsized. The distribution equipment is original to the building and with the manufacturer no longer in business, replacement parts will be increasingly hard to acquire for maintenance. The distribution board and panelboards should be replaced as part of the proposed renovation/expansion. If done, the serving utility (PGE) will likely require that the main electrical service be located on the main floor of the building, with direct access from the exterior (or for a service disconnect to be added to the exterior of the building) per their current standards.

Replace all branch wiring and provide conduit and wire (possibly MC cable if ODOT allows) to new outlets located within the walls and located in accordance with the proposed usage of the spaces.

Many of the existing luminaires should be replaced with new LED fixtures – including those in the pool area that would be rated for a natatorium environment to avoid rusting issues. The advantage beyond energy savings would be less frequent maintenance – particularly in the high ceiling pool area where the existing fluorescent lamps require regular replacement. Occupancy sensor control could be added at the same time, allowing for additional energy usage savings and to meet the present requirements of the energy code. Remove all bug-eye style emergency lights and provide egress lighting with integral battery packs in new fixtures, or explore the possibility of adding an emergency generator with weatherproof enclosure for the building and provide at least one automatic transfer switch for emergency loads.

A renovated building would likely be classified as an 'A' Occupancy, which would require the addition of a standalone voice notification fire alarm system.

## 5.2 1950's Middle School and Addition

### Description

Utility power to the building is provided by Portland General Electric via a pad-mount transformer located at the NE corner of the site, added in 1990 (the building was previously served overhead). The below grade secondary feeder is fed to the main electrical service in the basement of the SE corner of the building. The utility meter is located on the exterior of the main level of the building.



Figure E6: Existing Padmount Transformer



Figure E7: Main Distribution Switchboard

The main distribution switchboard is located in the basement of the building and is a 208Y/120V, 800A, 3-phase, 4-wire configuration service. It feeds (8) panelboards distributed throughout the building, an elevator, and a UPS via fusible switches. The distribution board, manufactured by Coast Electric, is original to the building, as are the panelboards.

The branch wiring could not be observed during the visit but is assumed to be outdated and nearing its useful life in many areas. Throughout the building, surface mounted raceway was observed to feed receptacles that had been added on through the years.

Lighting within the building consists primarily of fluorescent, T8 lamp luminaires. Egress lighting consists of wall-pack / exit sign combination units and battery packs in general luminaires. Corridor lighting is manually controlled via the serving circuit breakers, while lighting in the individual classrooms is automatically controlled via local occupancy sensors.



Figure E8: Typical Classroom Luminaire

A major telecom upgrade had performed in recent years. Fiber service (provided by Clackamas County Fiber) is terminated in the main electrical, with (2) two-post distribution racks acting as the Main Distribution Frame (MDF). A secondary IDF has been added on the main floor near the SW entrance. Category 6 data cabling has been routed via surface mounted raceway to the various classrooms from these spaces.



Figure E9: MDF

Additionally, the building was also retrofitted with both a digital CCTV camera system and an access control system.



Figure E10: Typical CCTV Camera

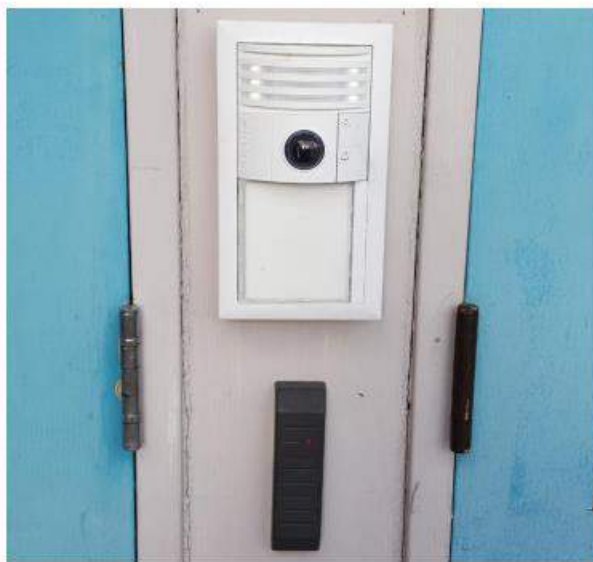


Figure E11: Access Control Devices

The building was provided with an expandable fire alarm system at some point. The headend unit is a Silent Knight SK-5208, which is now an obsolete unit and it is not addressable. Detection and notifications devices had been installed throughout.



Figure E12: Fire Alarm Control Panel



Figure E13: Typical Smoke Detector

### Code Issues

None observed at time of visit.

### Recommendation

The existing distribution equipment is original to the building and with the manufacturer no longer in business, replacement parts will be increasingly hard to acquire for maintenance. Should the building be reused, the distribution switchboard and all panelboards will need to be replaced in the near future.

Replace all branch wiring and provide conduit and wire (possibly MC cable is ODOT allows) to new outlets located within the walls and located in accordance with the proposed usage of the spaces.

Similarly, the lighting in the building should be upgraded as part of any renovation. The existing fluorescent wraparound fixtures, while functional, are not energy efficient and their lenses have begun to yellow due to their age. Remove all bug-eye style emergency lights and feed emergency lighting from new emergency distribution system and provide egress lighting with integral battery packs in new fixtures.

The fire alarm control panel is obsolete and should be replaced with an addressable system.

## 5.3 1990 Middle School Expansion

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### Description

The two-level standalone structure was added adjacent to the 1950's Middle School. Utility power to the building is provided via the same Portland General Electric pad-mount transformer that also serves the middle school. The below grade secondary feeder is fed to the main electrical service in the basement of the SE corner of the building.

The main distribution switchboard is located in the basement of the building and is a 208Y/120V, 1200A, 3-phase, 4-wire configuration service. It feeds (7) panelboards distributed throughout the building via circuit breakers. The distribution board, manufactured by I-T-E, is original to the building, as are the panelboards.





Figure E14: Typical Panelboard



Figure E15: Typical Troffer Luminaires

Lighting within the building consists primarily of recessed 2'x4' troffer luminaires with fluorescent, T8 lamps. Egress lighting is provided via battery powered wall-packs and wall-pack / exit sign combination units. Lighting control is provided via local occupancy sensors.



Figure E16: Emergency Wall-Pack



Figure E17: Sensor Switch

As with the middle school, the addition has been provided with a telecom upgrade. Fiber service is existing in the building, with Category 5E data cabling used for distribution. As this was added after original construction, raceway and devices for the telecom distribution are surface mounted throughout. CATV camera coverage was observed in all of the corridors and at entrances to the building, with digital devices. The building had also been retrofitted with an access control system.



Figure E18: Typical Surface-mounted Telecom



Figure E19: CCTV Camera

Fire alarm detection and notification devices were observed throughout the building.

### **Code Issues**

None observed at time of visit.

### **Recommendation**

Systems throughout the building appeared to be in good, working condition. If the building were to be reused or remodeled, all light fixtures should be considered for replacement with new LED fixtures. If cost were an issue this would not have to be done immediately, but with the fixtures already nearing 30-years of life, they would need to be replaced for extended life of the building. Remove all bug-eye style emergency lights and feed emergency lighting from new emergency distribution system and provide egress lighting with integral battery packs in new fixtures.

Telecom systems have been updated and between cabled devices and wireless access points, data coverage appears sufficient for any future use. Interconnections with systems in the 1950's middle school would need to be identified and remediated if that building were to be demolished.

It is believed that the building's fire alarm devices are connected to the fire alarm control panel in the 1950's middle school. Should that building be demolished, a new headend unit would need to be provided in this building for its continued operation.

*END OF REPORT*

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# Aquatic Evaluation Report

## Cedar Ridge Community and Aquatic Center Sandy, Oregon

November 27, 2017

**Prepared For:**

City of Sandy  
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Sandy, OR 97055

**Prepared By:**

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## Executive Summary

WTI has been commissioned by the City of Sandy to report on the current condition of the existing indoor pool located on Pleasant Street adjacent to the Sandy Grade School. WTI visited the facility on November 27, 2017, toured the pool and related amenities, and met with staff to discuss operations. The enclosed report documents the observations from the site visit and outlines recommended capital and operational changes. Major components of the aquatic amenities have been given a score based on their observed condition, and these scores are weighted and aggregated to provide a total score. Below is a summary outline of the condition scores, recommendations, and estimated capital costs.

The Total Aggregated Evaluation Score is shown below, and out of a possible high score of 100, is an indication of the condition of the aquatic amenities.

Total Aggregated Evaluation Score: **41.25**

The condition of a facility is a major determination of the effort and cost of maintaining the utility and value of the amenities. A deteriorated facility will demand higher annual operating expenses over time as parts break, systems fail, finishes deteriorate, and structures weaken. There are also efficiencies lost when operating aging systems or equipment which are unable to take advantage of current methods and financially sustainable practices. The recommended repairs, replacements and renovations detailed in this report seek to modernize aquatic components and renew the efficient lifespan of the facility.

Below are the recommended repairs or replacements based on the observed condition of the aquatic components and the associated range of probable capital cost. A detailed description for each repair or replacement is included further in the report. Recommendations are categorized in three levels representing three levels of investment for the improvement of the facility.

### **Recommendations – Level One – Basic Repairs**

- Repair Pool Deck
- Replace Gutter and Water Line Tile
- Replace Pool Paint Finish with Aggregate Plaster Finish
- Replace Pool Deck Equipment and Hardware
- Remove Diving Board and Slide
- Replace Pool Returns/Inlets
- Replace Cast Iron Piping with PVC Piping
- Replace Vacuum DE Filter with Regenerative Media Filtration
- Close Wading Pool

**Total: \$851,000 to \$1,238,000**

### **Recommendations – Level Two – Updates and Modernization**

- Replace Pool Deck and Deck Drains
- Replace Gutter and Water Line Tile
- Replace Pool Paint Finish with Aggregate Plaster Finish
- Replace Pool Deck Equipment and Hardware
- Replace Diving Board
- Remove Slide
- Replace Pool Returns/Inlets
- Replace Cast Iron Piping with PVC Piping
- Replace Vacuum DE Filter with Regenerative Media Filtration
- Construct Surge Tank
- Install UV Sanitation System



Separate Wading Pool System  
**Total: \$1,496,000 to \$2,198,000**

**Recommendations – Level Three – Complete Pool Replacement**

Competition Pool – 8 Lane, 25 Yard – 5,000 ft<sup>2</sup>  
Therapy/Wellness Pool – 1,000 ft<sup>2</sup>

**Total: \$2,250,000 to \$2,750,000**

Cost estimates for complete replacement involves the pool vessel, pool piping, and pool mechanical equipment, and does not account for site, building, or building mechanical components.

## Introduction

The purpose of this evaluation is to review the present condition of the aquatic amenities and aquatic mechanical systems at the existing indoor aquatics. The evaluation consists of visual examination of the pools and associated mechanical equipment. The report outlines the present condition of the systems, equipment, and components and provides recommendations for repairs or replacements. Each recommendation is given an estimated range for the probable cost to construct, install, or perform the renovation or repair.

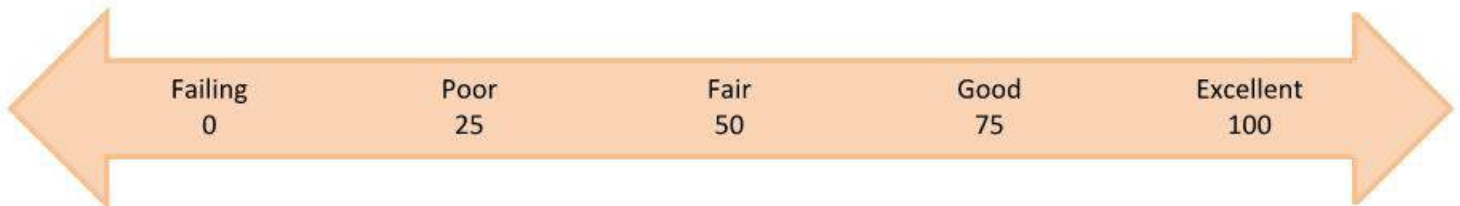
The current aquatic center is a stand-alone aquatic facility formerly serving the school district. The facility holds an L-shaped lap pool with diving well, and a small wading pool. There are six lap lanes in both directions of the L-shaped pool. The shallow end of the lap pool holds 25-yard lap lanes and the deep end, with the diving well, holds 25 meter lap lanes.

The pool vessel and gutters are constructed with concrete and the interior finish is painted. The pools are filtered using a vacuum D.E. filter. The pool is disinfected with a calcium hypochlorite. Pool water heat is provided with a heat exchanger on the building boiler system.

## Methodology

WTI observed the condition of the aquatic elements at the facility. Aquatic elements include pool vessels, water features, pool filtration systems, pool circulation pumps, piping, valves and controls, and water treatment systems. Observations were conducted in a non-destructive manner and did not involve the removal of any structures or disassembly of any equipment.

Major components of the aquatic systems and structures are categorized in the report and scored based on their observed condition. The condition scores are weighted and aggregated to produce an overall evaluation score. Potential scores range from zero to one hundred, representing the condition descriptions below:



Total evaluation scores for the pool and aquatic amenities are compiled and weighted to create a total aggregated evaluation score. The total aggregated evaluation score provides an indication of the overall condition of the aquatic amenities of the facility.

Included in the report are observations and indications of the condition of the accessible means of pool entry and exit. WTI has endeavored to identify problems with the means of access and potential non-compliance with the Americans with Disabilities Act (ADA). Observations and evaluations included in this report do not constitute certification or verification of compliance with ADA requirements. ADA compliance is a legal opinion, and WTI is not able to anticipate or guarantee judicial interpretation with respect to a facility's legal compliance. WTI recommendations are based on a current understanding of the technical requirements of ADA regulations on aquatic amenities.

Compliance with Virginia Graeme Baker Pool and Spa Safety Act (VGBA) regulations has not been verified or investigated as a part of this evaluation and report. Any statements regarding drains, suction fittings, or any other component pertaining to VGBA are preliminary observations only, and further inspection to substantiate compliance is necessary.



The cost amounts associated with the provided recommendations are the opinion of WTI based on a professional understanding of market conditions. Cost amounts have not been trade or contractor verified, and are intended only provide guidance for a preliminary aquatic budget.

# Observations

Below are descriptions of the observations from the site visit for major components of the aquatic amenities. A ranking of the condition of each component is indicated with an associated score.

		Condition Rank	Condition Score	Weight Value	Total Score
<b>Pool Vessel</b>		Good	75	0.100	7.50
Type/Style:	Concrete				
Comments:	Structural integrity not verified. Some efflorescence visible in sub-grade mechanical area				
Issues/Problems:	<input type="radio"/> Cracking <input type="radio"/> Spalling <input type="radio"/> Shifting/Movement <input type="radio"/> Groundwater Infiltration <input type="radio"/> Exposed Reinforcement <input type="radio"/> Leaking/Water Loss				
<b>Pool Finish</b>		Poor	25	0.050	1.25
Type/Style:	Paint, Tile on Gutters				
Comments:	Significant wear and deterioration, widespread metal staining				
Issues/Problems:	<input type="radio"/> Cracking <input type="radio"/> Spalling <input checked="" type="radio"/> Delamination <input checked="" type="radio"/> Coarse/Rough Surface <input type="radio"/> Softening/Dissolving <input checked="" type="radio"/> Staining				
<b>Pool Gutter</b>		Fair	50	0.100	5.00
Type/Style:	Concrete				
Issues/Problems:	<input type="radio"/> Broken Grating <input type="radio"/> Insufficient Channeling/Flow <input type="radio"/> Insufficient Rimflow <input checked="" type="radio"/> Flooding/Insufficient Capacity <input type="radio"/> Ineffective Dropouts/Removal <input type="radio"/> Cracking <input type="radio"/> Spalling <input type="radio"/> Staining <input type="radio"/> Excessive Noise				
<b>Pool Accessibility</b>		Good	75	0.050	3.75
Type/Style:	Chairlift				
Comments:	Water Powered				
Issues/Problems:	<input type="radio"/> Not Operable Without Assistance <input type="radio"/> Insufficient Capacity/Lifting Power <input type="radio"/> Not Present at Time of Observation <input type="radio"/> Hardware Corrosion				
<b>Pool Handrails</b>		Poor	25	0.025	0.63
Type/Style:	Stainless Steel				
Issues/Problems:	Excessive corrosion on and around anchors				
	<input type="radio"/> Staining <input checked="" type="radio"/> Corrosion <input checked="" type="radio"/> Scale Formation <input type="radio"/> Loose/Insecure				
<b>Underwater Lighting</b>		Fair	50	0.025	1.25
Type/Style:	Wet Niche				

Comments: Not in operation at time of observation

Issues/Problems:

- Not Operating
- Broken Frame or Lense
- Not Removable

<b>Main Drains</b>	Fair	50	0.075	3.75
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Type/Style: Dual

Comments: Compliance with VGBA not verified.

Issues/Problems:

- Missing/Broken Cover
- Unsafe Fitting Condition

<b>Return Inlets</b>	Failing	0	0.050	0.00
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Type/Style: Floor Inlets

Comments: All inlets very corroded and stained.

Issues/Problems:

- Broken Fixture
- Blocked/Non-Functioning
- Missing Cover/Face

<b>Piping</b>	Poor	25	0.050	1.25
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Type/Style: Mostly Cast Iron, some PVC

Issues/Problems:

- Leaking
- Corrosion
- Metal Components
- Unnecessary Connections
- Inefficient Routing
- Blockages/Plugged

<b>Filtration</b>	Failing	0	0.100	0.00
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Type/Style: Vacuum DE

Comments: Filter was operating without any form of media. Concrete tank badly deteriorating

Issues/Problems:

- High Operating Pressure
- Low Operating Pressure
- Clogs/Debris
- Biological Growth
- Insufficient Capacity
- Insufficient Flow
- Inoperable Valves
- Leaking Tank

<b>Circulation Pump</b>	Fair	50	0.050	2.50
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Type/Style: Centrifugal Impeller

Issues/Problems:

- Excessive Motor Heat
- Excessive Motor Noise
- Leaking
- Corrosion
- Insufficient Flow

<b>Circulation Valves</b>	Fair	50	0.050	2.50
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Type/Style: Butterfly

Issues/Problems:

- Inoperable - Closed
- Inoperable - Open
- Broken Handle
- Corrosion



- Limited Flow Adjustment
- Leaking

<b>Chemical Control</b>	Good	75	0.050	3.75
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Type/Style: Automatic Chemical Controller

Issues/Problems:

- Inaccurate Disinfectant Readings
- Inaccurate pH Readings
- Control Flowswitch
- Alerts

<b>Chemical Storage and Safety</b>	Failing	0	0.050	0.00
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Type/Style: None

Comments: Chemical containers co-mingled in general mechanical area

Issues/Problems:

- Insufficient Fire Protection
- Insufficient Spill Protection
- Lack of Chemical Separation
- Inoperable Air Evacuation
- MSDS Not Present
- Missing/Inoperable Eyewash Station
- Leaking Containers (Liquids)
- Missing Personal Protective Equipment
- Spilled Containers (Powders/Solids)
- Open Containers / Exposure to Fumes

<b>Primary Disinfection</b>	Good	75	0.050	3.75
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Type/Style: Calcium Hypochlorite

Comments:

Issues/Problems:

- Hazardous Injection Location
- Leaking
- Hazardous Conveyance Methods
- Lack of Automation

<b>Supplemental Disinfection</b>	Failing	0	0.050	0.00
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Type/Style: None

Issues/Problems:

- Broken Bulb
- Broken Wiping Mechanism
- Insufficient Voltage
- Lack of Downstream Strainer

<b>Chemical Balance</b>	Good	75	0.050	3.75
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Type/Style: Carbon Dioxide

Issues/Problems:

- Hazardous Injection Location
- Leaking
- Hazardous Conveyance Methods
- Lack of Automation

<b>Pool Water Heating</b>	Good	75	0.025	1.88
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Type/Style: Heat Exchanger

Issues/Problems:

- Corrosion
- Insufficient Heat
- Leaking

<b>Total Pool Score</b>		Weight	Score
Observations		1.00	42.50

## Recommendations – Level One

The following repairs or replacements are encouraged for immediate improvement of the aquatic center. These recommendations are needed, at a minimum, to allow the facility to operate more efficiently and effectively and provide a safe, healthy, and beneficial experience to facility users.

Aquatic amenities and components have been observed and considered for recommendations for improvement. Elements of the facility beyond the aquatic components, such as site, building, and building mechanical components, are excluded from the analysis of this report.

### **Repair Pool Deck**

The pool deck has several areas of rough and splitting surfaces. This spalling of the concrete will continue to worsen over time. These areas of the deck should be ground smooth, refinished, or replaced. Repairing these spots will create visible patchwork of concrete sections on the pool deck and will not be the most aesthetically pleasing solution. However, the pool deck will be safe and functional.

### **Replace Gutter and Water Line Tile**

There are numerous missing and broken tiles on and around the pool gutter. These broken tiles are not only an eyesore, but create rough and sharp edges potentially dangerous for patrons and compromise the waterproofing of the pool finish. In addition, the tiles and grout show significant wear and tear, as well as staining. The tiles on the pool gutter and around the water surface line should be replaced with new tile and grout.

### **Replace Pool Paint Finish with Aggregate Plaster Finish**

The interior pool surface is currently painted. A painted pool requires frequent repainting. The painted surface of the existing pool is faded, chipped, and worn away. The lap lane lines, also painted, are significantly worn, and there are many areas of stains all around the pool, most likely from metal concentrations in the water.

The pool finish needs to be replaced, and an aggregate plaster finish should be applied. The painted finish will continue to be a maintenance item and require repainting as frequently as every year to several years. An aggregate plaster finish, while having greater capital cost to apply, will provide not only a better appearance, but a more durable finish to last many years.

### **Replace Pool Deck Equipment and Hardware**

The stainless-steel equipment and hardware in and around the pool is all significantly corroded, stained, and scaling. This equipment includes the starting platforms, handrails, chairlift, and lifeguarding stands. This corrosion and deterioration is beyond being able to be cleaned and presents not only an unsightly appearance but a potential for the equipment to fail. All starting platforms, handrails, lifeguard stands, poles and stanchions should be removed and replaced. The anchors holding these items in the pool deck are also likely severely compromised and corroded and should be replaced as well.

The primary ADA compliant means of entry and exit is a hydraulic chairlift. ADA compliant. A hydraulic chairlift requires a hose be run to the unit from the nearest hose bibb. This presents a tripping hazard for patrons on the deck. An ADA compliant battery powered chairlift should be installed along with the rest of the new deck equipment.

### **Remove Diving Board and Slide**

The existing concrete diving board stand is badly cracking, spalling, and breaking apart. This structure is no longer safe to use and should be closed immediately. The diving board and stand should be demolished and removed from the facility. Level Two recommendations involve replacing the diving board and stand.

The deep end of the lap pool also holds a slide. This slide is constructed similar to a dry-land play slide and is not appropriate for use in an aquatic center. The slide has minimal barriers to prevent a fall and no fall protection in the event of a fall. Use of the slide should be discontinued immediately and the slide should be removed from the facility. If there is a desire to have a waterslide in this pool, a purpose-built, engineered waterslide can be installed from one of several reputable waterslide manufacturers.

#### **Replace Pool Returns/Inlets**

The existing returns, or inlets, to the pool are an old style involving a fan-like metal plate. This style return provides no ability to direct the inflowing stream of water (such as directing it downward to maintain a calm water surface). The metal on these returns also has become corroded. It is common for this corrosion to prevent the rotation of the metal plate, locking the return in one state of open, closed or partially open, without the ability to adjust.

#### **Replace Cast Iron Piping with PVC Piping**

Significant portions of the pool piping in the mechanical room are cast iron. Cast iron, copper, or other metal piping components exposed to chlorinated pool water corrode and deteriorate and are not appropriate for use in the pool piping system. Exposing the pool water to this amount of untreated metal also increases the metal ions present in the water and creates greater potential for metal stains in the pool. With the exception of piping related to the pool heat exchanger, all metal piping components should be removed and replaced with Schedule 80 PVC piping. Minimizing the amount of metal piping components will improve the pool water chemistry and ensure the integrity of the pool piping system.

#### **Replace Vacuum DE Filter with Regenerative Media Filtration**

The current lap pool filtration system operates under the principle of pulling the pool water through vertical column grids. Small particles and debris are intended to be trapped and lodged in the diatomaceous earth (DE) that coats these grids. At the time of observation, the filter was operating without any DE media present to coat the filter grids. This leaves only the fabric sleeves on the grids to filter the pool water. These sleeves are not sufficient to entrap particles and handle the demands of a public pool. It is unclear if the lack of DE media was intentional or an oversight.

In addition, the concrete tank holding the filter grids is badly deteriorated. The concrete is cracking and spalling, and rust from the internal steel reinforcing is visible and indicative of compromised structural integrity. This tank should be demolished, and a regenerative media filtration system installed to filter the pool.

Regenerative media filters are located on the pressure side of the circulation pump and push water through perlite media. Perlite media is an excellent filtration material and can be commonly found in the beverage industry. The automated "bump" cycle of the system regenerates the used media to extend the lifespan of a media cycle. This process reduces the amount of water consumed to flush the system, and provides an automated method of achieving the micron removal levels of a DE filter.

#### **Close Wading Pool**

The existing wading pool utilizes the same filtration and water treatment system as the lap pool. Both pools are effectively a single body of water. This prevents the pools from operating at separate water temperatures, as well as poses a risk of contamination in one pool in the event of a fecal accident, or other hazard, in the other. The wading pool should have its own, independent circulation, filtration, and water treatment system. In lieu of constructing these separate systems, the wading pool should be shutdown.

## Recommendations – Level Two

The following repairs or replacements are encouraged to properly update and modernize the aquatic center. While Level One recommendations are the basic and necessary repairs to keep the facility open, Level Two recommendations are the needed improvements to bring the facility back to the standards of today's aquatic centers and continue to operate well into the future.

### **Replace Pool Deck and Deck Drains**

The pool deck has several areas of rough and splitting surfaces. This spalling of the concrete will continue to worsen over time. The existing concrete deck should be completely removed and a new, brush finished concrete deck installed. The new deck should be drained using imbedded trench drains, which provide for thorough draining and a more even deck slope profile.

### **Replace Gutter and Water Line Tile**

As described in Level One Recommendations

### **Replace Pool Paint Finish with Aggregate Plaster Finish**

As described in Level One Recommendations

### **Replace Pool Deck Equipment and Hardware**

As described in Level One Recommendations

### **Replace Diving Board**

The existing concrete diving board stand is badly cracking, spalling, and breaking apart. This structure is no longer safe to use and should be closed immediately. The diving board and stand should be demolished and removed from the facility. A new one-meter springboard and stand should be installed to replace the existing diving board.

### **Remove Slide**

The deep end of the lap pool also holds a slide. This slide constructed similar to a dry-land play slide and is not appropriate for use in an aquatic center. The slide has minimal barriers to prevent a fall and no fall protection in the event of a fall. Use of the slide should be discontinued immediately and the slide should be removed from the facility. If there is a desire to have a waterslide in this pool, a purpose-built, engineered waterslide can be installed from one of several reputable waterslide manufacturers.

### **Replace Pool Returns/Inlets**

As described in Level One Recommendations

### **Replace Cast Iron Piping with PVC Piping**

As described in Level One Recommendations

### **Replace Vacuum DE Filter with Regenerative Media Filtration**

As described in Level One Recommendations

### **Construct Surge Tank**

The function of pool perimeter gutters is one of the most important aspects of pool design. Gutters are intended to skim only the very top of the pool water from the rest of the pool. The majority of the contamination and unwanted material in a pool, such as body oils, greases and bacteria, reside at the surface of the water. Continuously removing this part of the water and sending it to the filtration and water treatment systems is crucial to maintaining a clean and healthy pool.

The current pool perimeter gutters are surge gutters. This means the gutters are intended to hold the excess water displaced when swimmers enter the water and activity creates waves over the gutter edge. When numerous swimmers enter the pool or there is a highly dynamic activity in the pool, the water level in the pool rises and fills the gutters. The current gutters do not have enough capacity to handle a large number of swimmers entering the pool and/or a highly dynamic activity. As a result, the gutters may flood, and a flooded gutter no longer functions as a skimming mechanism.

To provide this capacity, and enable the pool to maintain efficient circulation even during times of high use, a surge tank should be constructed in the mechanical room. This tank will hold water displaced from the pool and allow the gutter to always remain less than full. Water from the gutters will flow by gravity to the surge tank, and the circulation pump will draw water from the surge tank. Automatic valves will modulate the level of water in the surge tank and ensure proper function.

### **Install UV Sanitation System**

A primary disinfection chemical is necessary to disinfect and oxidize contaminants and maintain a residual throughout all areas of the pool water. However, it is almost impossible for even a strong oxidizer to completely remove all bacteria and pathogens from a busy, crowded pool. Further, chloramines and disinfection byproducts, a result of the oxidation process, are also present in pool water and increase as pool occupancy increases. Supplementary sanitation, a secondary method of disinfecting the pool water beyond maintaining a residual of chlorine in the water, is crucial to mitigating these remaining contaminations.

Currently the pool has no method of providing supplementary sanitation. An ultraviolet sanitation system should be installed to provide effective supplementary sanitation. Pool water will pass through a medium pressure ultraviolet light chamber. In this chamber, ultraviolet bulbs will flood the passing pool water with ultraviolet radiation to kill bacteria and breakdown contaminants. Exposure to ultraviolet light inactivates biological contaminants and reduces noxious chloramines, thus providing a means of secondary treatment of pool water.

### **Separate The Wading Pool System**

The existing wading pool utilizes the same filtration and water treatment system as the lap pool. Both pools are effectively a single body of water. This prevents the pools from operating at separate water temperatures, as well as poses a risk of contamination in one pool in the event of a fecal accident, or other hazard, in the other. The wading pool should have its own, independent circulation, filtration, and water treatment system. New circulation piping, filtration, heating, water treatment and chemical automation systems should be installed on the wading pool to create a truly separate pool.

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## Recommendations – Level Three

The previously discussed recommendations are necessary to maintain the aquatic components of the facility in proper working order. When a significant capital investment is considered for components of an asset, the replacement of a complete asset is often a valuable comparative consideration. Therefore, newly constructed pool vessels should be considered and would involve the replacement of the pools and associated pool systems with newly constructed vessels, pool piping and pool mechanical systems. The new pool vessels will be designed and engineered to meet the highest standards of quality and compliance and be supported by today's advanced mechanical, filtration and water treatment systems.

---

### **Construct New Pool Vessels**

Construction of completely new pools provides an opportunity to refine the facility's ability to accommodate users. New aquatic amenities, as defined below, allow two separate bodies of water in approximately the same footprint as the current pool. A new competition pool and a new therapy/wellness pool, as separate bodies of water, allow two different water temperatures and greatly enhance the ability to hold concurrent program events.

#### ***New Competition Pool (approximately 5,000 ft<sup>2</sup>)***

The competition pool has 8 lap lanes with a length of 25 yards, and two 1-meter diving boards. The pool has a deck level gutter and an aggregate plaster finish with tile borders.

#### ***New Therapy/Wellness Pool (approximately 1,000 ft<sup>2</sup>)***

The therapy/wellness pool incorporates a large zone for water fitness and aerobic activities, as well as underwater seating with hydrotherapy jets for relaxation and socialization. The pool has a deck level gutter and an aggregate plaster finish with tile borders.

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With complete pool replacement a near limitless collection of aquatic programs and features are available for incorporation into the new facility. The above represents only one possible program outcome, and complete pool replacement allows for the reconsideration of the aquatic amenities and how to best serve the needs of facility users.



Appendix:

**Site Observation Images**

collected on 11/27/2017



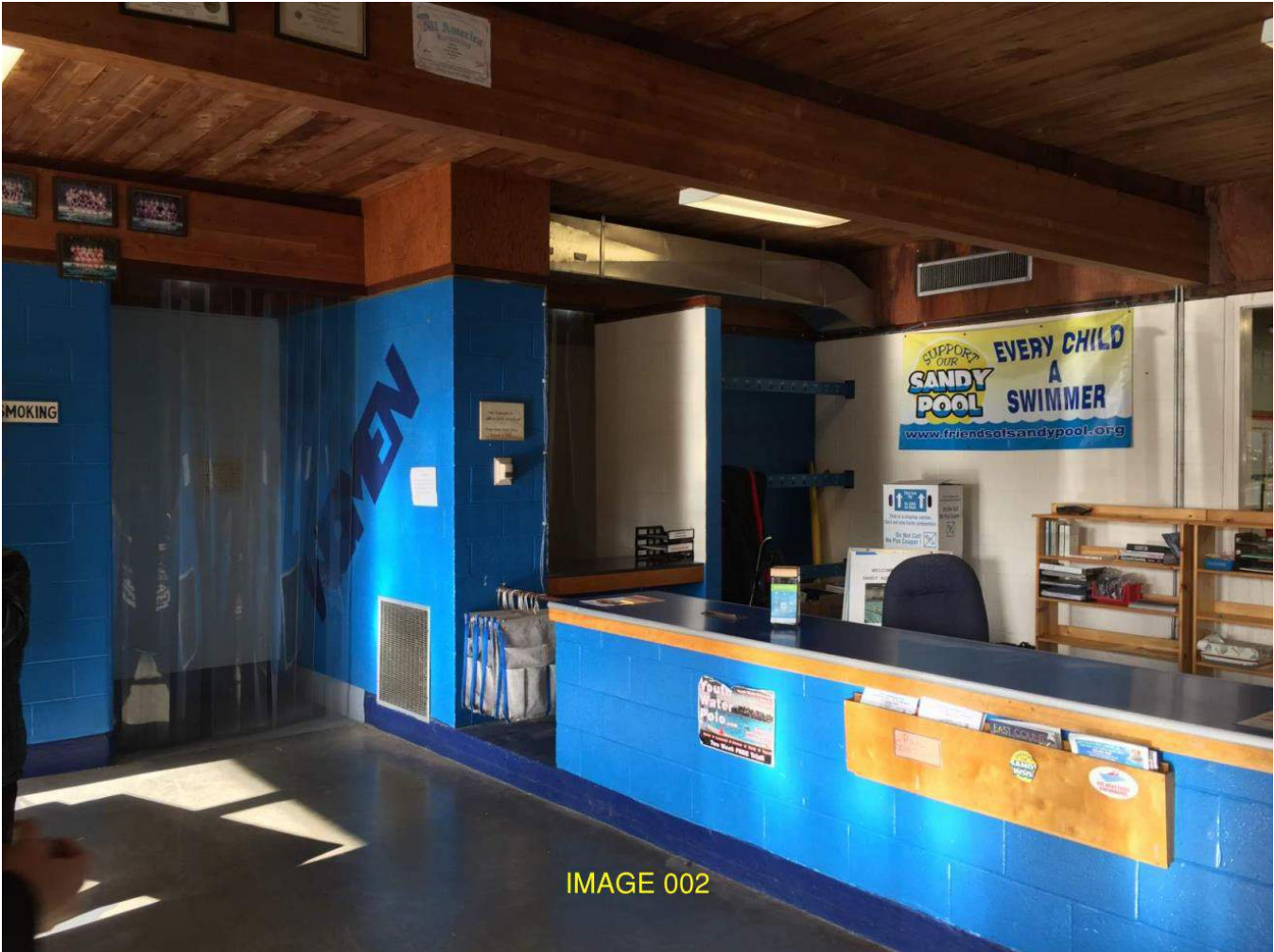


IMAGE 002





IMAGE 004







IMAGE 006



IMAGE 007

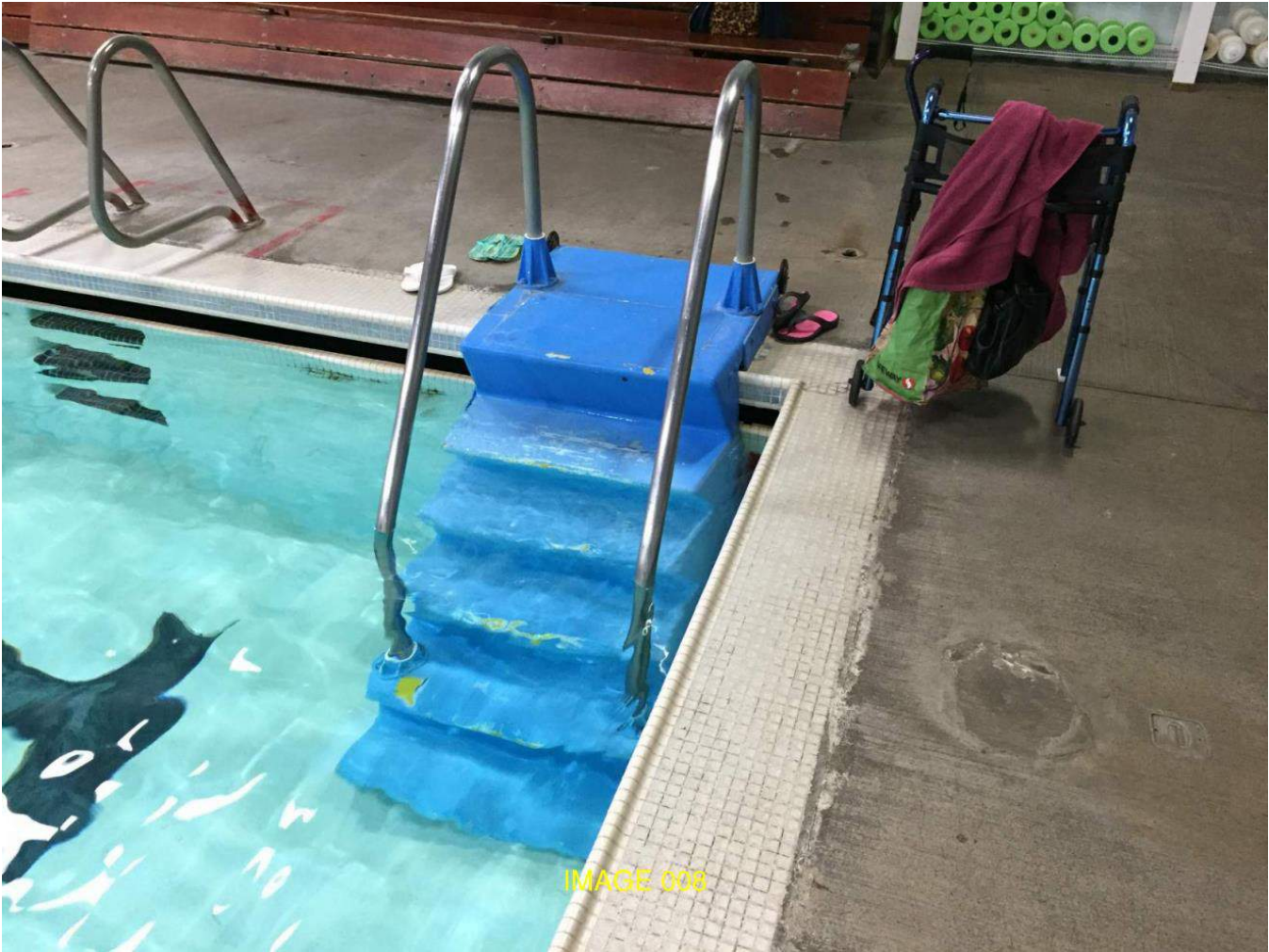




IMAGE 009

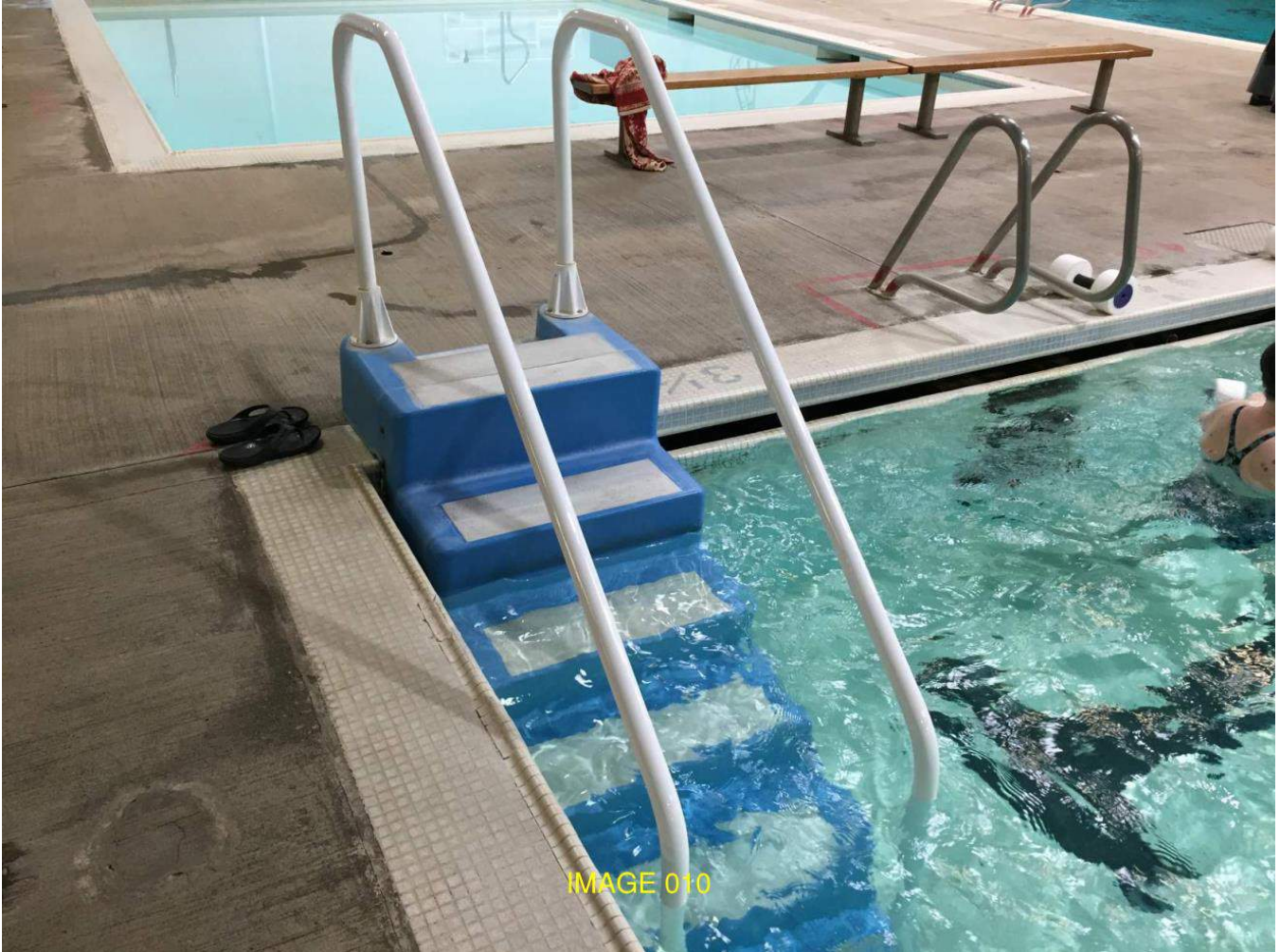
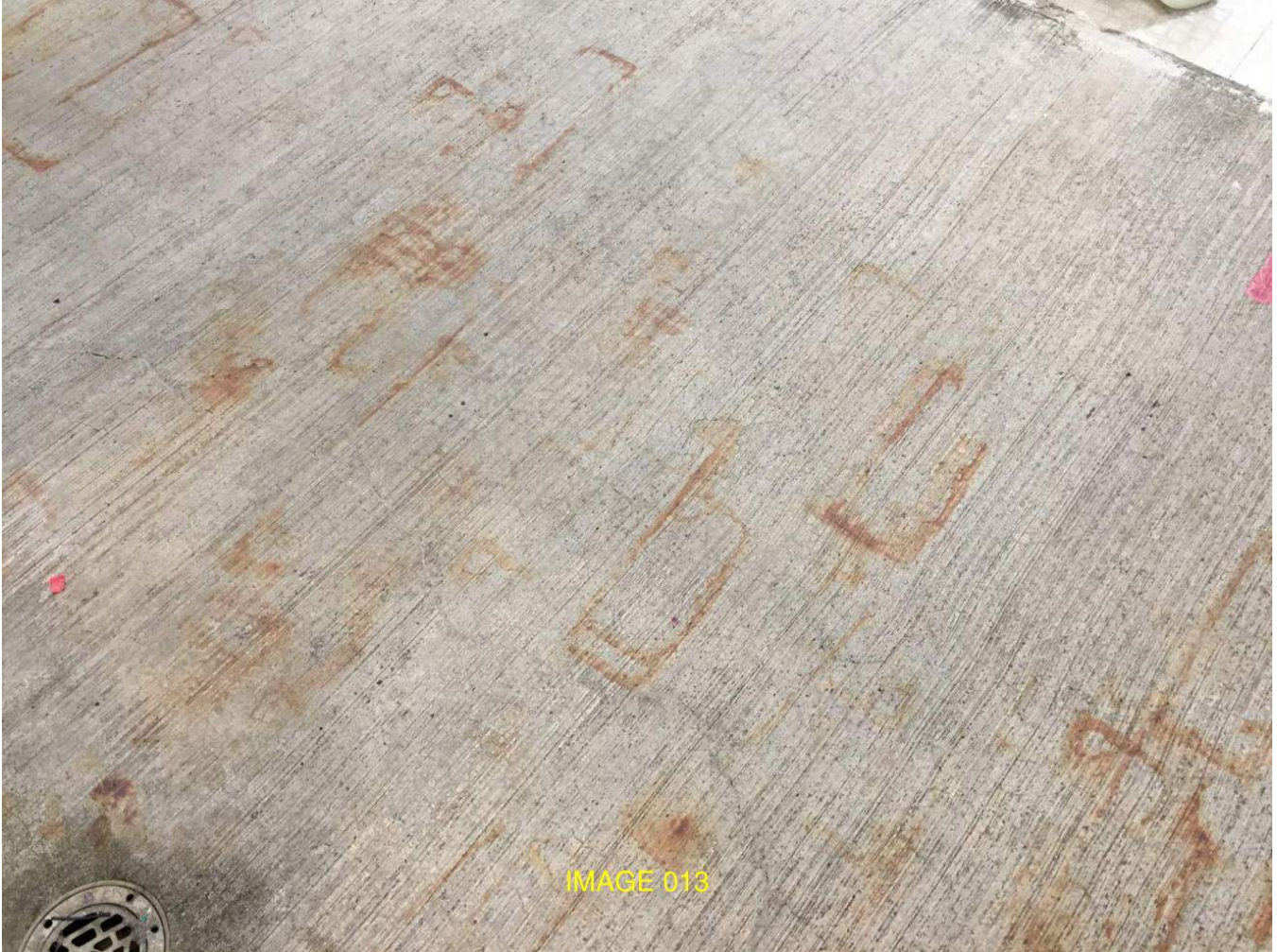






IMAGE 012









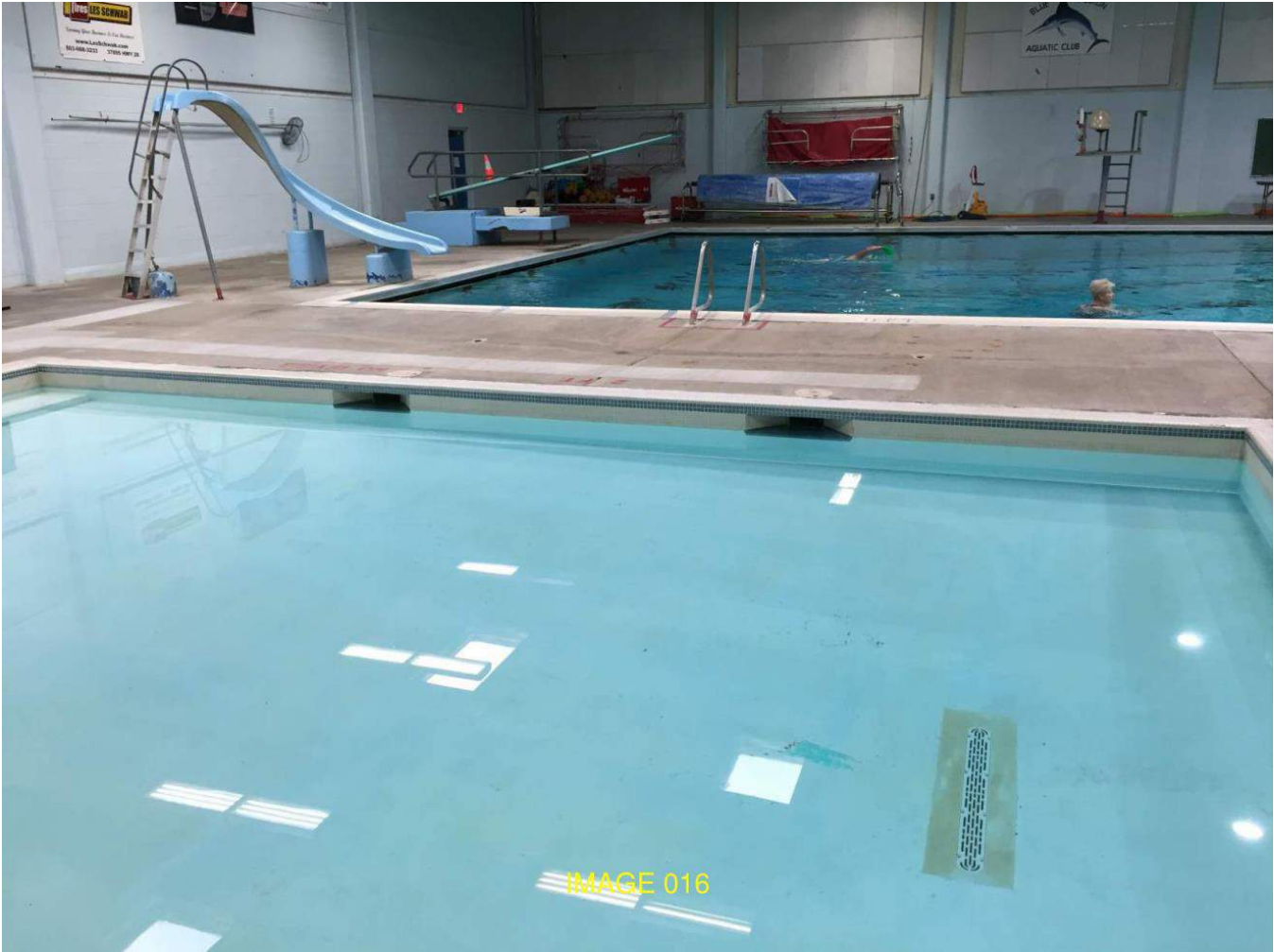




IMAGE 017







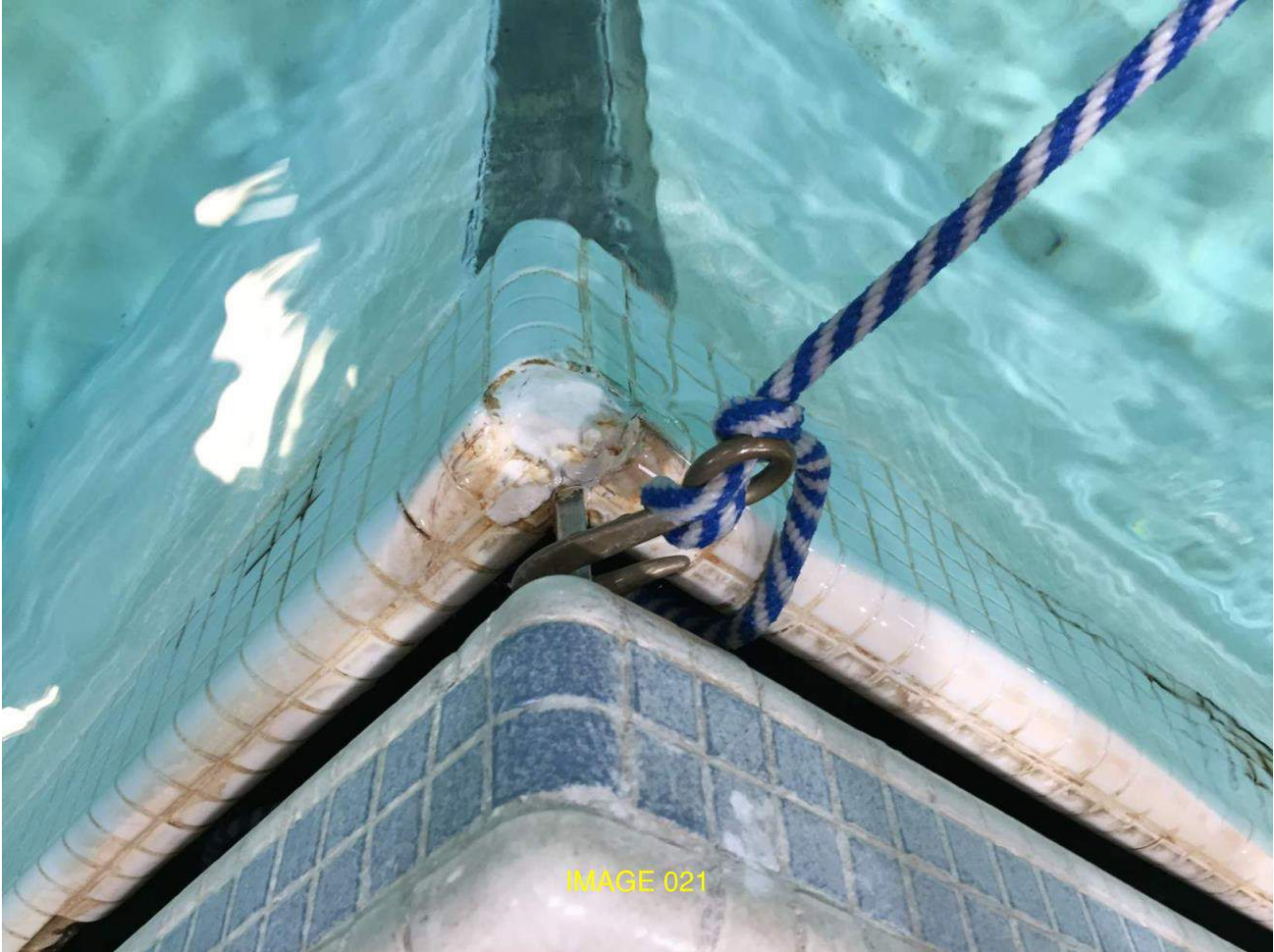








IMAGE 023





IMAGE 025













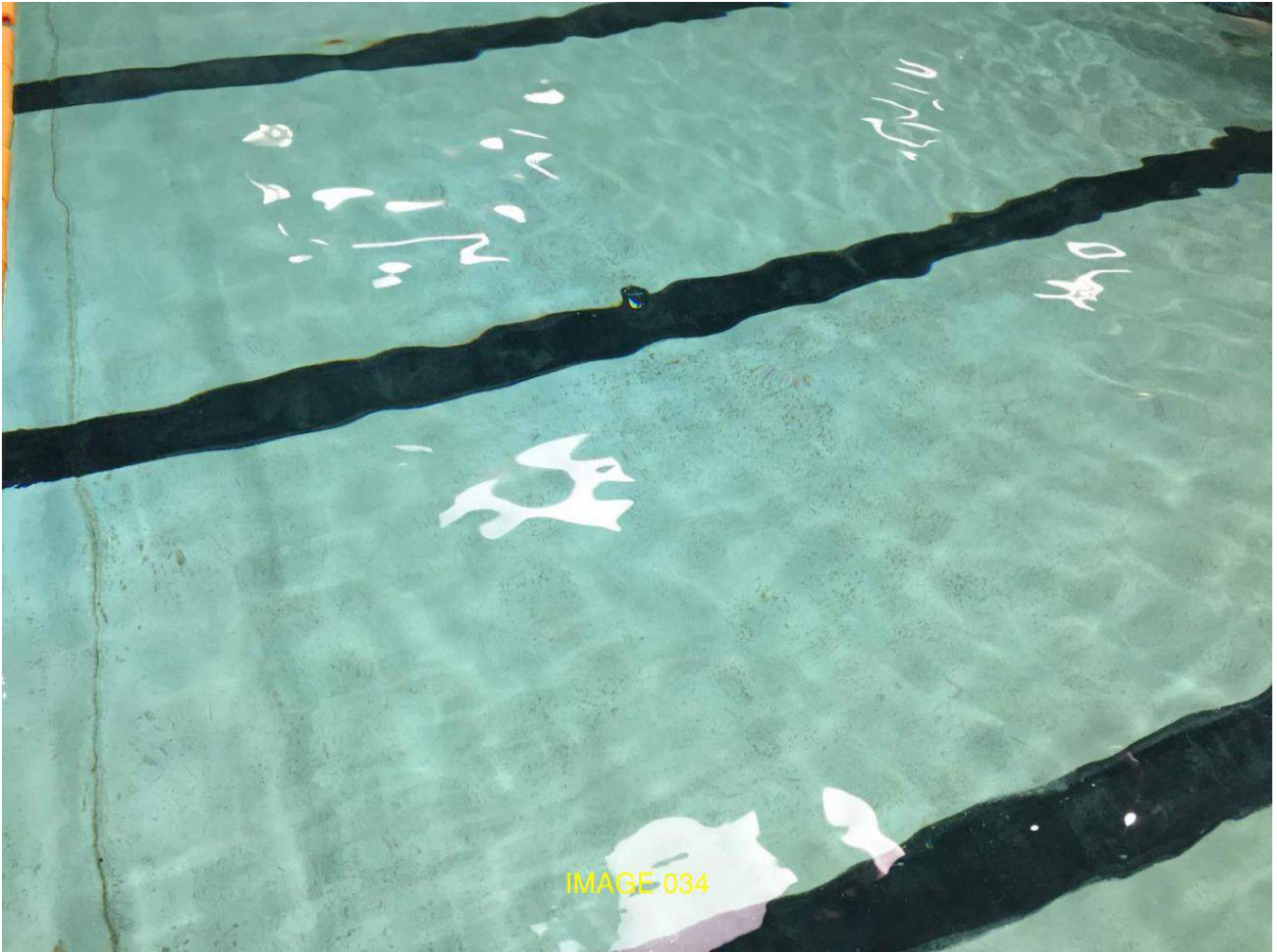
IMAGE 030



IMAGE 031







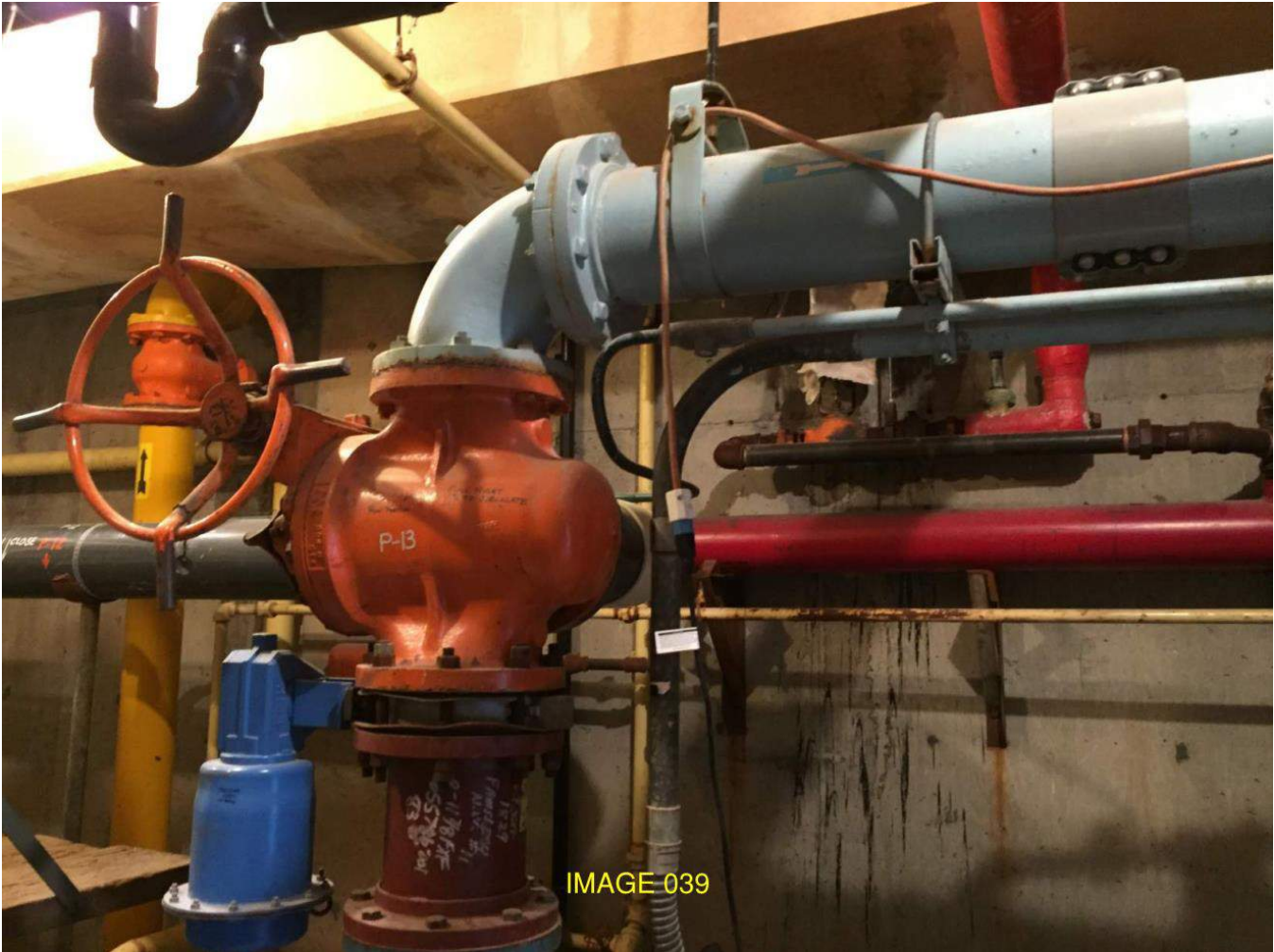












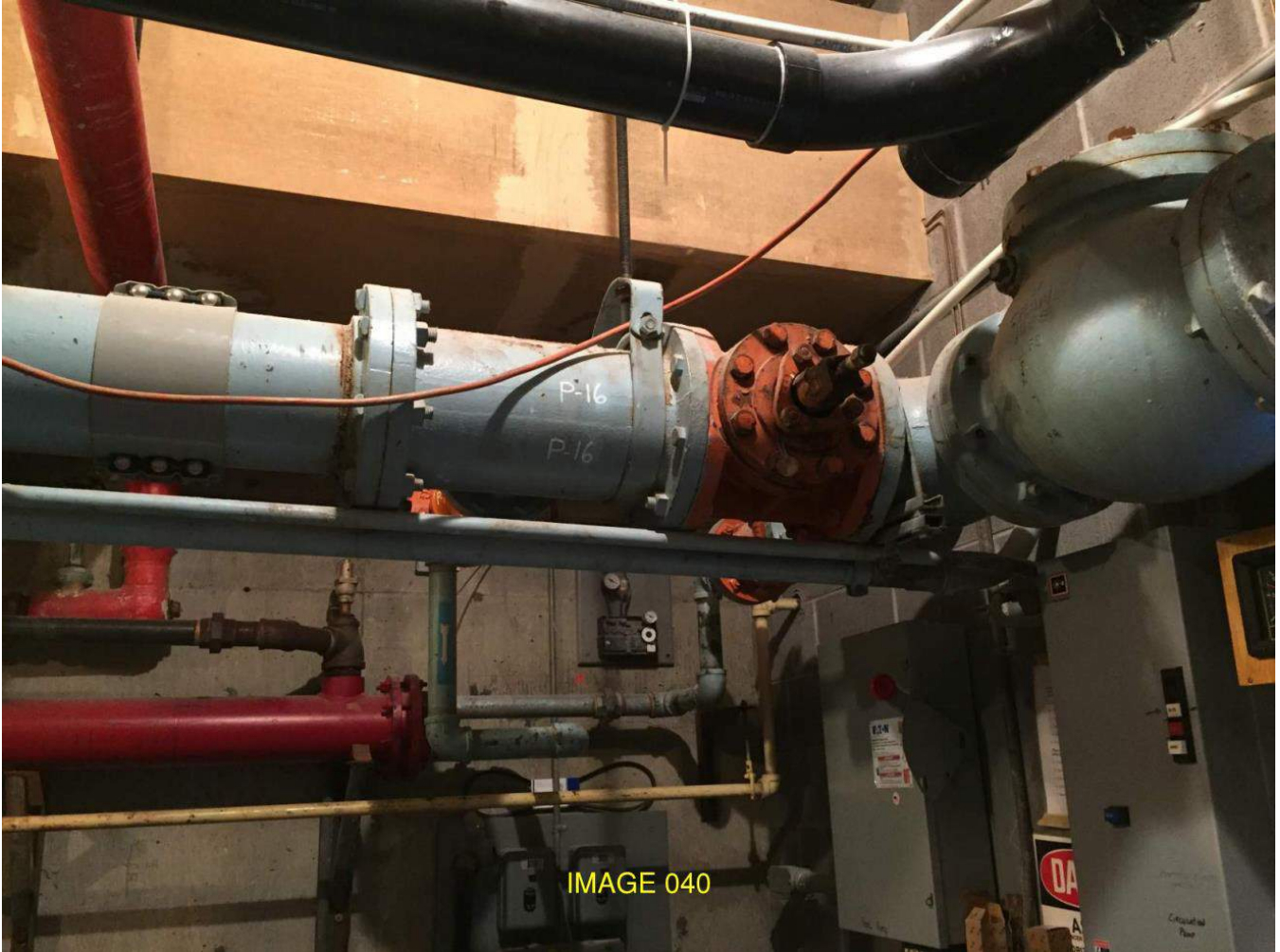






IMAGE 042



IMAGE 043



IMAGE 044







IMAGE 046





IMAGE 048



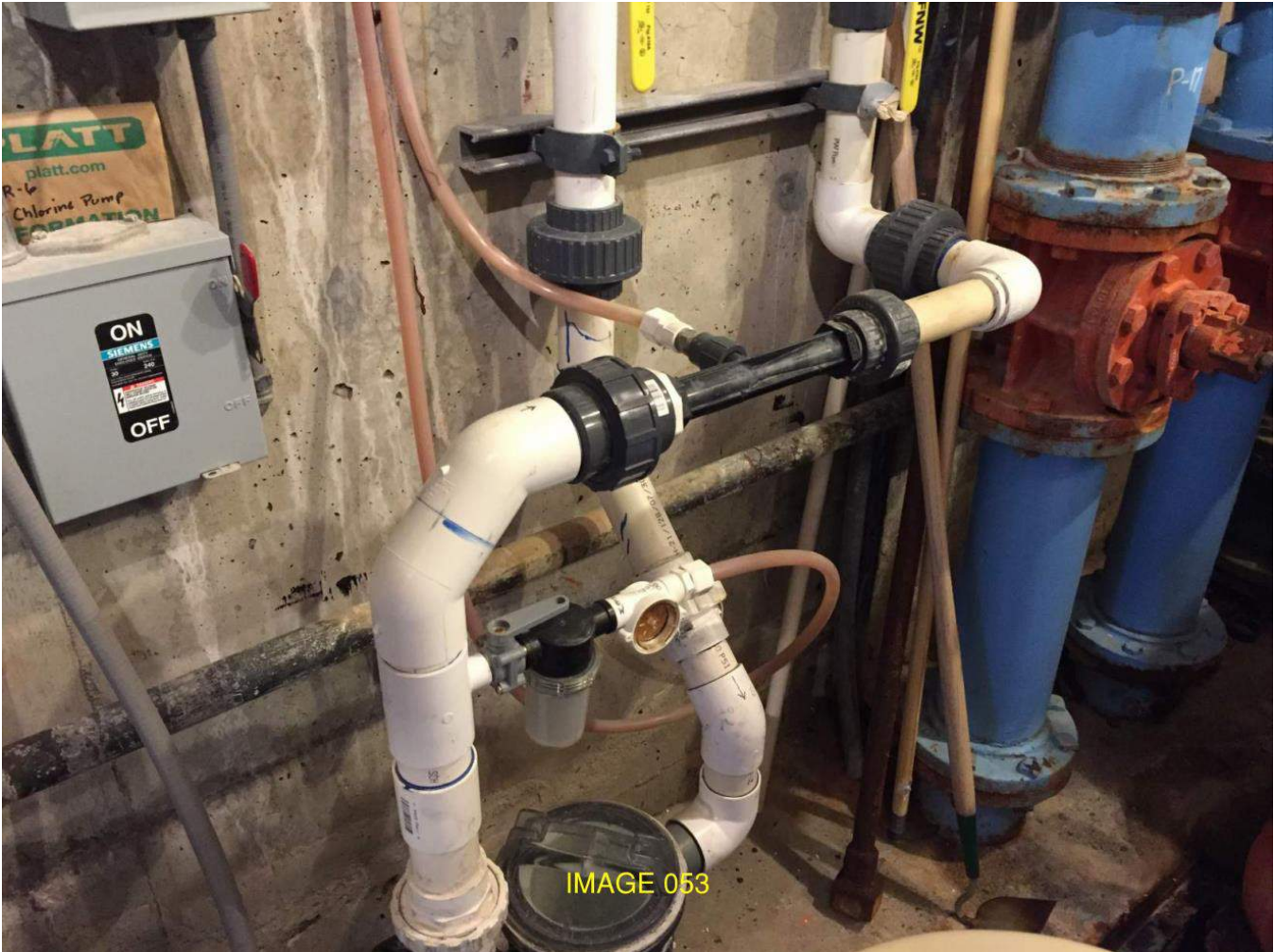


IMAGE 050



IMAGE 051









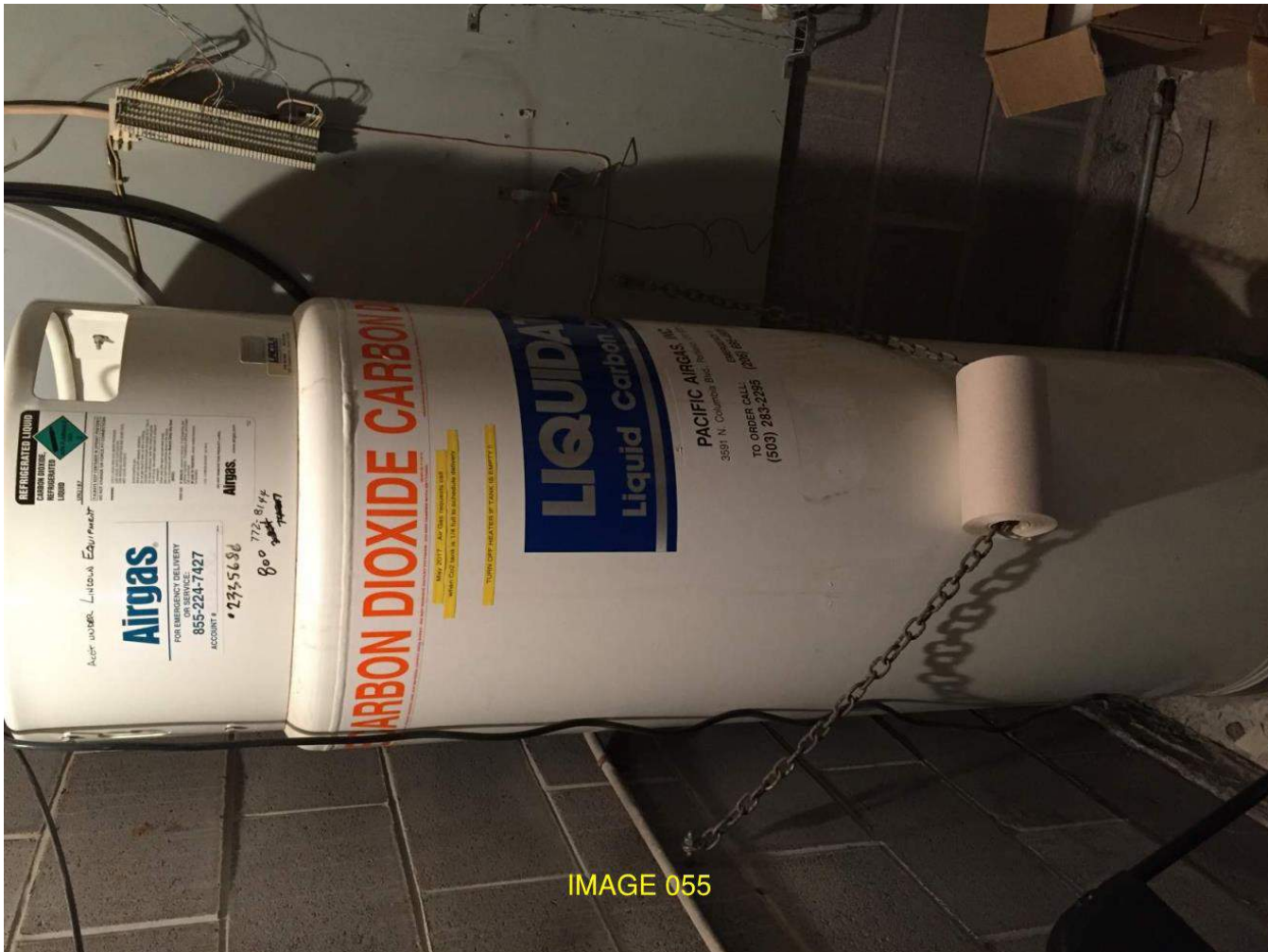


IMAGE 055







IMAGE 058





IMAGE 059





## **3. Program Analysis** Ballard\*King

Market Analysis

Focus Groups

Preliminary Center Program

Operations Analysis



## **Market Assessment**

Ballard\*King & Associates (B\*K) has been tasked with performing a market assessment for Sandy, Oregon for the possible renovation of the existing Olin Bignall Aquatic Center, the existing school building and large attached athletic field/park area.

### **Demographics**

The following is a summary of the demographic characteristics within Sandy, Oregon and an identified Secondary Service Area. The Secondary Service Area extends to the Columbia River on the North, Gresham to the West, Estacada to the Southwest and Mt. Hood to the East.

Data for Sandy is compared with data from the Secondary Service Area as well as the State of Oregon and the United States.

Secondary Service Areas are defined as the distance people will travel on a regular basis (a minimum of once a week) to utilize recreation facilities. Use by individuals outside of this area will be much more limited and will focus more on special activities or events.

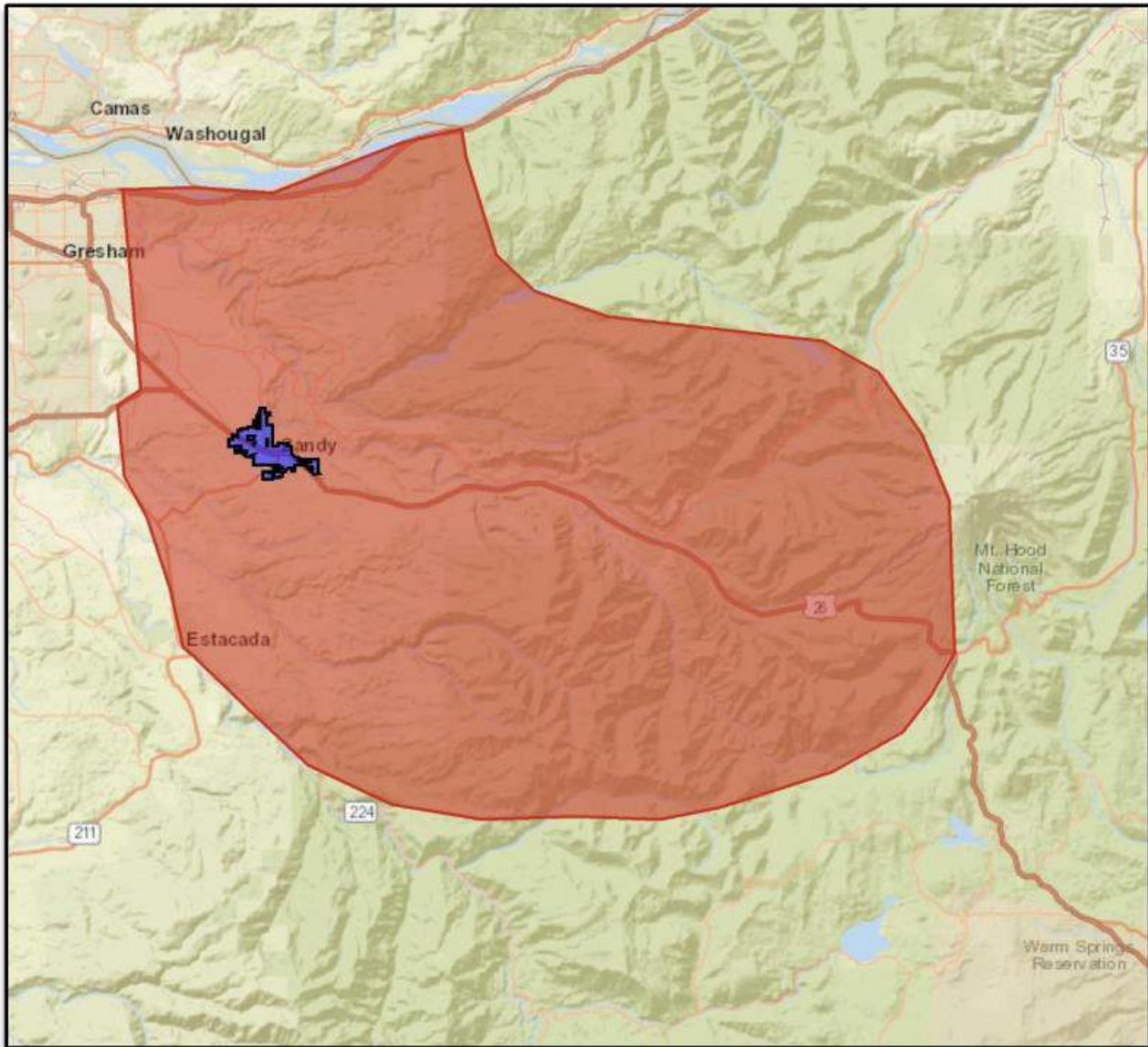
Service areas can flex or contract based upon a facility's proximity to major thoroughfares. Other factors impacting the use as it relates to driving distance are the presence of alternative service providers in the service area. Alternative service providers can influence membership, daily admissions and the associated penetration rates for programs and services.

Service areas can vary in size with the types of components in the facility.

B\*K accesses demographic information from Environmental Systems Research Institute (ESRI) who utilizes 2010 Census data and their demographers for 2017-2022 projections. In addition to demographics, ESRI also provides data on housings, recreation, and entertainment spending and adult participation in activities. B\*K also uses information produced by the National Sporting Goods Association (NSGA) to overlay onto the demographic profile to determine potential participation in various activities.



**Map A – Service Area Maps**



**Table A - Demographic Summary**

	Sandy, OR	Secondary Service Area
<b>Population:</b>		
2010 Census	9,570 <sup>1</sup>	51,622 <sup>2</sup>
2017 Estimate	11,188	56,640
2022 Estimate	12,208	60,311
<b>Households:</b>		
2010 Census	3,567	19,291
2017 Estimate	4,136	20,993
2022 Estimate	4,506	22,290
<b>Families:</b>		
2010 Census	2,486	14,139
2017 Estimate	2,856	15,208
2022 Estimate	3,094	16,064
<b>Average Household Size:</b>		
2010 Census	2.68	2.66
2017 Estimate	2.70	2.69
2022 Estimate	2.71	2.69
<b>Ethnicity (2017 Estimate):</b>		
Hispanic	8.1%	7.7%
White	90.1%	89.7%
Black	0.5%	0.5%
American Indian	1.3%	1.0%
Asian	1.4%	1.8%
Pacific Islander	0.2%	0.2%
Other	2.4%	3.3%
Multiple	4.1%	3.5%
<b>Median Age:</b>		
2010 Census	32.8	41.2
2017 Estimate	35.8	42.8
2022 Estimate	35.9	43.7
<b>Median Income:</b>		
2017 Estimate	\$61,258	\$70,062
2022 Estimate	\$70,971	\$79,569

<sup>1</sup> From the 2000-2010 Census, Sandy, OR experienced a 51.5% increase in population.

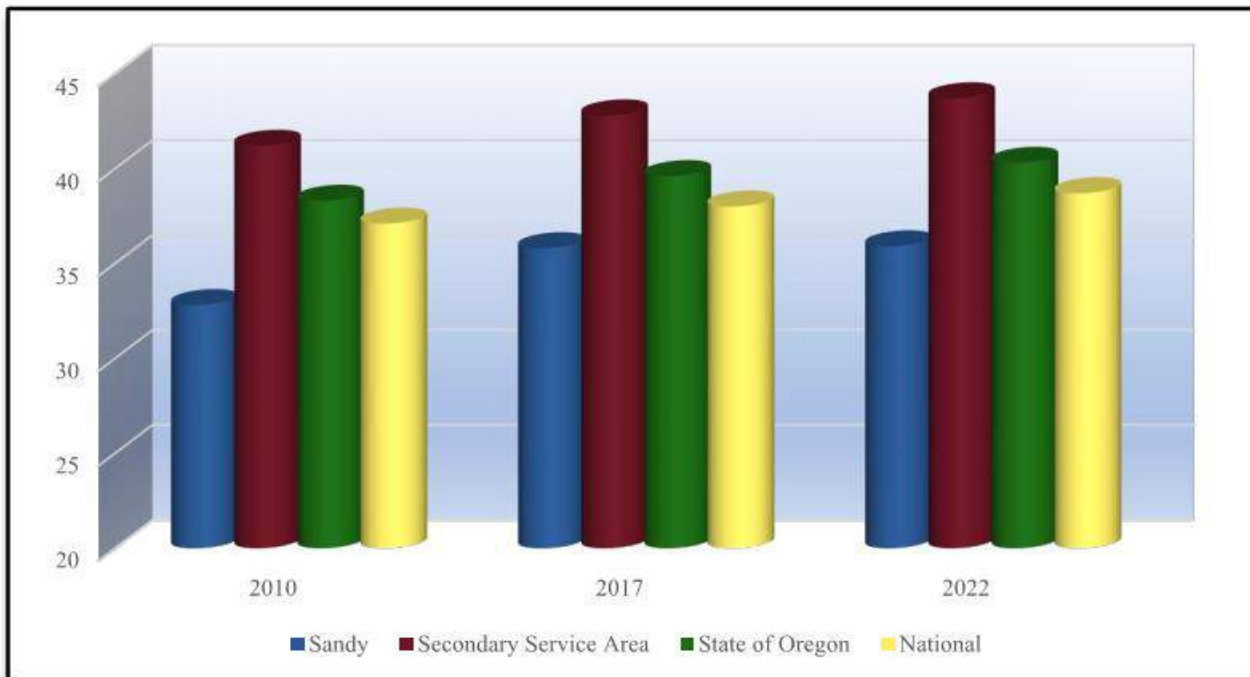
<sup>2</sup> From the 2000-2010 Census, the Secondary Service Area experienced a 13.3% increase in population.

**Age and Income:** The median age and household income levels are compared with the national number as both of these factors are primary determiners of participation in recreation activities. The lower the median age, the higher the participation rates are for most activities. The level of participation also increases as the median income level goes up.

**Table B – Median Age:**

	2010 Census	2017 Projection	2022 Projection
Sandy	32.8	35.8	35.9
Secondary Service Area	41.2	42.8	43.7
State of Oregon	38.3	39.6	40.3
Nationally	37.1	38.0	38.7

**Chart A – Median Age:**



The median age in the Sandy is significantly lower than the Secondary Service Area, the State of Oregon and the National number. The Secondary Service Area has a higher median age than Oregon and the United States. A lower median age typically points to the presence of families with children.

**Households with Children:** The following chart provides the number of households and percentage of households in Sandy and the Secondary Service Area with children.

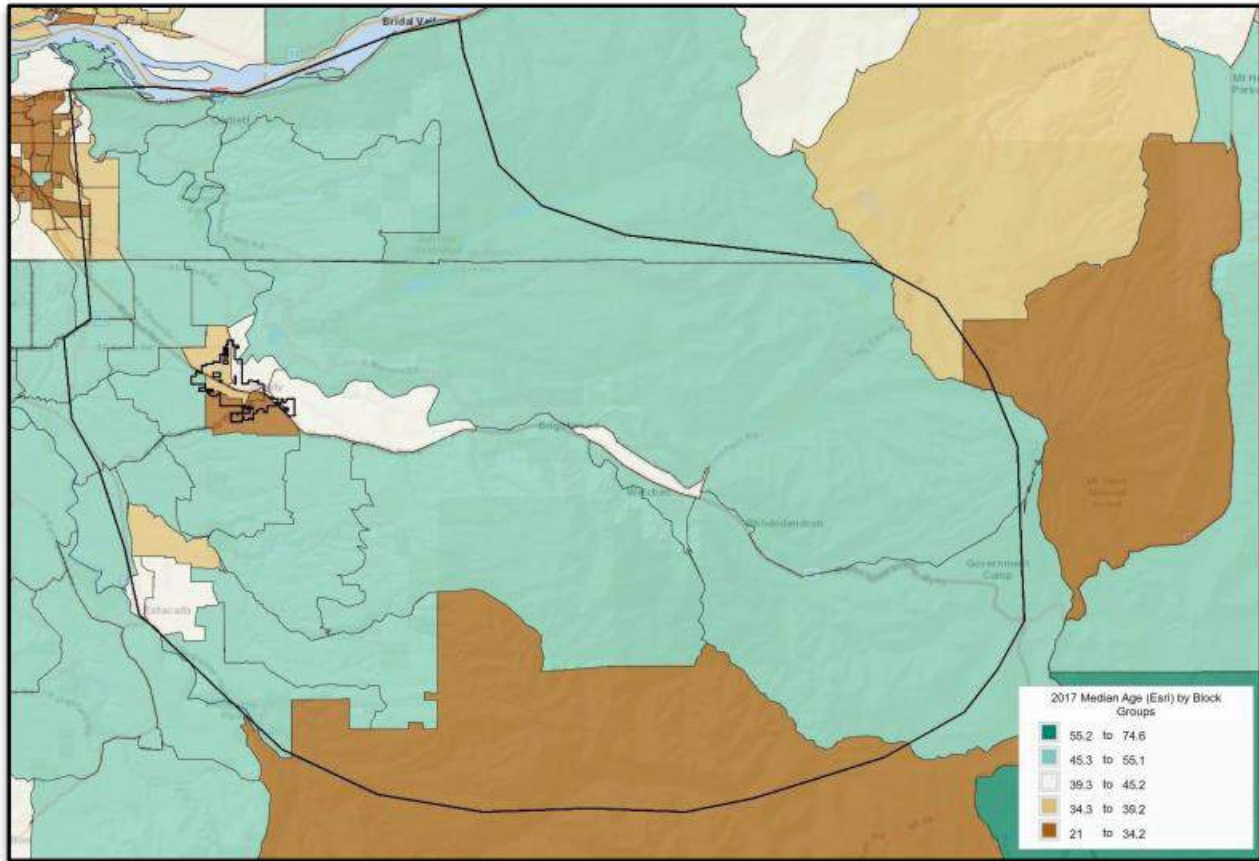
**Table C – Households w/ Children**

	<b>Number of Households w/ Children</b>	<b>Percentage of Households w/ Children</b>
Sandy	1,488	40.6%
Secondary Service Area	6,329	32.8%
State of Oregon	456,775	30.1%

The information contained in Table-C helps further outline the presence of families with children. As a point of comparison in the 2010 Census, 33.4% of households nationally had children present.



**Map B – Median Age by Census Block Group**

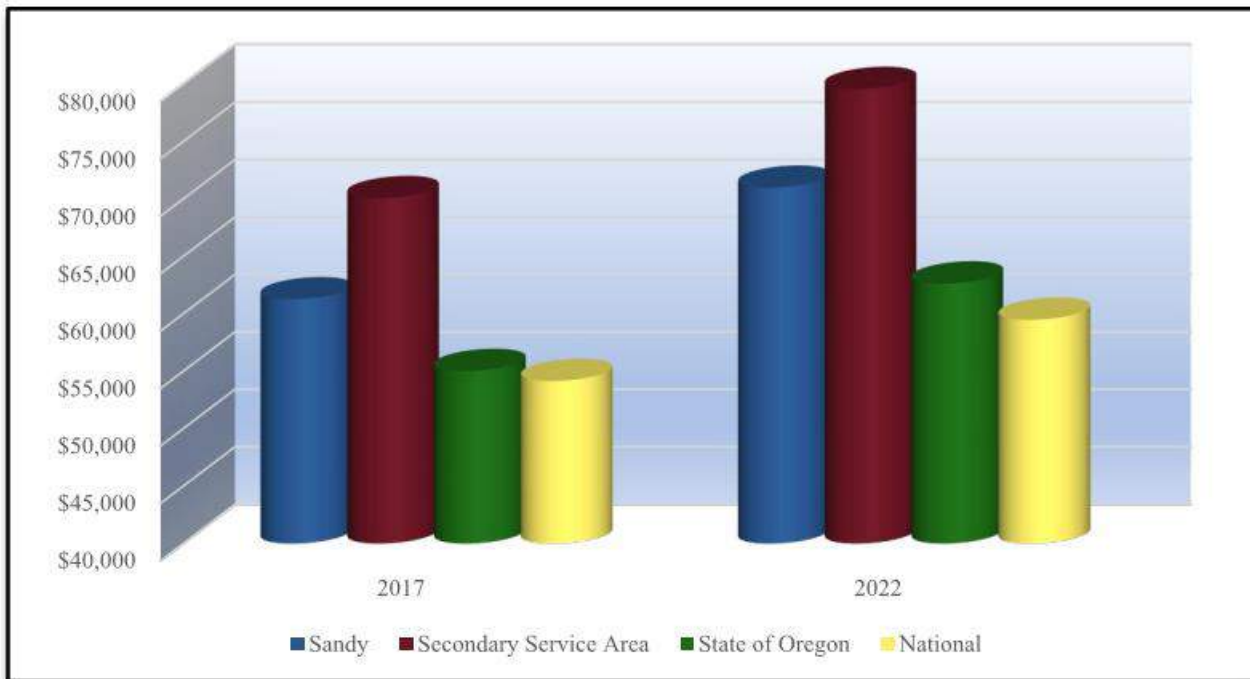




**Table D – Median Household Income:**

	2017 Projection	2022 Projection
Sandy	\$61,258	\$70,971
Secondary Service Area	\$70,062	\$79,569
State of Oregon	\$55,012	\$62,633
Nationally	\$54,149	\$59,476

**Chart B – Median Household Income:**



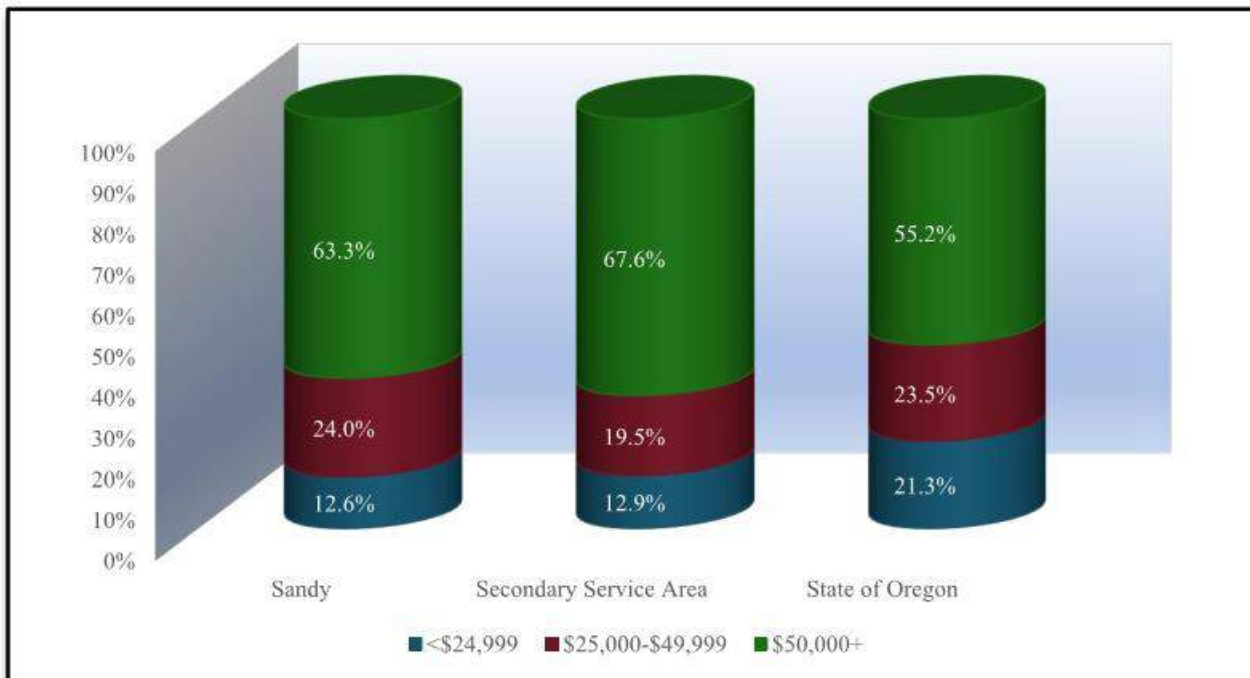
Based on 2017 projections for median household income the following narrative describes the service areas:

In Sandy, the percentage of households with median income over \$50,000 per year is 63.6% compared to 55.9% on a national level. Furthermore, the percentage of the households in the service area with median income less than \$25,000 per year is 12.6% compared to a level of 21.5% nationally.

In the Secondary Service Area, the percentage of households with median income over \$50,000 per year is 67.6% compared to 55.9% on a national level. Furthermore, the percentage of the households in the service area with median income less than \$25,000 per year is 12.9% compared to a level of 21.5% nationally.

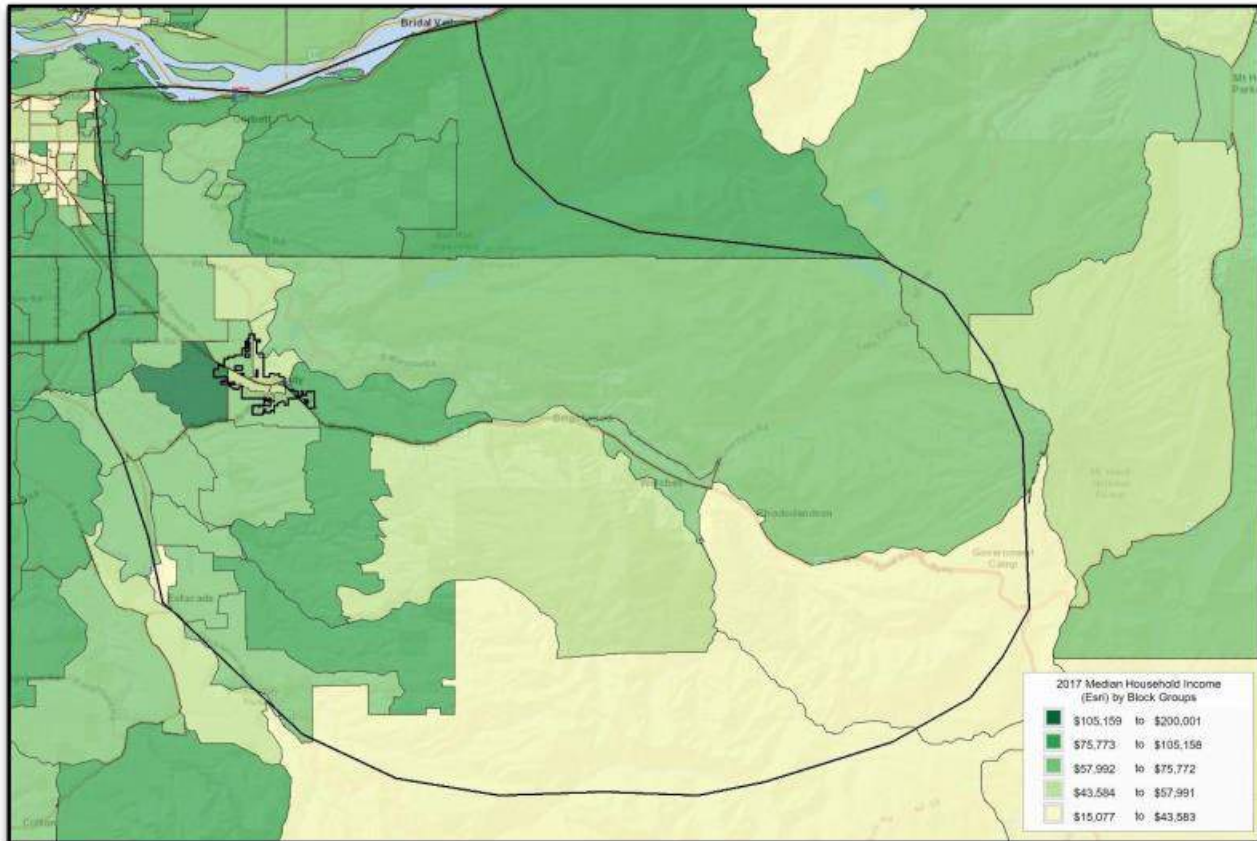
While there is no perfect indicator of use of an indoor recreation facility, the percentage of households with more than \$50,000 median income is a key indicator. Therefore, those numbers are significant and balanced with the overall cost of living.

**Chart C – Median Household Income Distribution**





**Map C – Household Income by Census Block Group**



**Household Budget Expenditures:** In addition to looking at Median Age and Median Income, it is important to examine Household Budget Expenditures. In particular, reviewing housing information; shelter, utilities, fuel and public services along with entertainment & recreation can provide a snapshot into the cost of living and spending patterns in the services areas. The table below looks at that information and compares the service areas.

**Table E – Household Budget Expenditures<sup>3</sup>:**

<b>Sandy</b>	<b>SPI</b>	<b>Average Amount Spent</b>	<b>Percent</b>
Housing	87	\$18,413.75	30.3%
<i>Shelter</i>	86	\$13,970.55	23.0%
<i>Utilities, Fuel, Public Service</i>	88	\$4,443.20	7.3%
Entertainment & Recreation	88	\$2,733.90	4.5%

<b>Secondary Service Area</b>	<b>SPI</b>	<b>Average Amount Spent</b>	<b>Percent</b>
Housing	105	\$22,244.42	30.0%
<i>Shelter</i>	103	\$16,759.97	22.6%
<i>Utilities, Fuel, Public Service</i>	109	\$5,484.45	7.4%
Entertainment & Recreation	109	\$3,407.47	4.6%

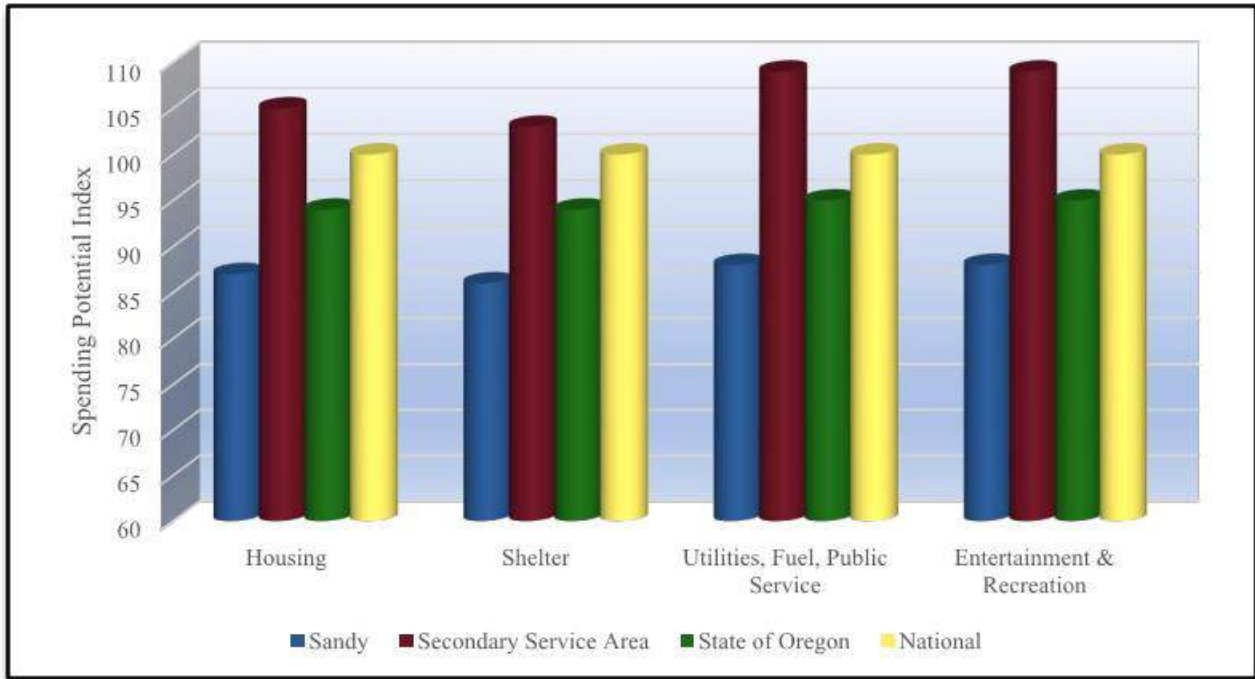
<b>State of Oregon</b>	<b>SPI</b>	<b>Average Amount Spent</b>	<b>Percent</b>
Housing	94	\$20,089.78	30.7%
<i>Shelter</i>	94	\$15,324.61	23.4%
<i>Utilities, Fuel, Public Service</i>	95	\$4,765.17	7.3%
Entertainment & Recreation	95	\$2,950.06	4.5%

**SPI:** Spending Potential Index as compared to the National number of 100.  
**Average Amount Spent:** The average amount spent per household.  
**Percent:** Percent of the total 100% of household expenditures.

*Note: Shelter along with Utilities, Fuel, Public Service are a portion of the Housing percentage.*

<sup>3</sup> Consumer Spending data are derived from the 2004 and 2005 Consumer Expenditure Surveys, Bureau of Labor Statistics. ESRI forecasts for 2017 and 2022.

**Chart D – Household Budget Expenditures Spending Potential Index:**



The total number of housing units in Sandy is 3,768 and 94.7% are occupied, or 3,567 housing units. The total vacancy rate for the service area is 5.3%. Of the available units:

- For Rent 1.7%
- Rented, not Occupied 0.1%
- For Sale 1.9%
- Sold, not Occupied 0.4%
- For Seasonal Use 0.2%
- Other Vacant 1.2%

**Recreation Expenditures Spending Potential Index:** Finally, through the demographic provider that B\*K utilizes for the market analysis portion of the report, we can examine the overall propensity for households to spend dollars on recreation activities. The following comparisons are possible.

**Table F – Recreation Expenditures Spending Potential Index<sup>4</sup>:**

<b>Sandy</b>	<b>SPI</b>	<b>Average Spent</b>
Fees for Participant Sports	92	\$91.28
Fees for Recreational Lessons	87	\$115.91
Social, Recreation, Club Membership	89	\$186.51
Exercise Equipment/Game Tables	89	\$52.82
Other Sports Equipment	87	\$9.25

<b>Secondary Service Area</b>	<b>SPI</b>	<b>Average Spent</b>
Fees for Participant Sports	110	\$108.83
Fees for Recreational Lessons	106	\$140.71
Social, Recreation, Club Membership	106	\$223.76
Exercise Equipment/Game Tables	112	\$67.01
Other Sports Equipment	113	\$11.95

<b>State of Oregon</b>	<b>SPI</b>	<b>Average Spent</b>
Fees for Participant Sports	94	\$92.83
Fees for Recreational Lessons	90	\$120.04
Social, Recreation, Club Membership	92	\$193.76
Exercise Equipment/Game Tables	92	\$54.93
Other Sports Equipment	95	\$10.04

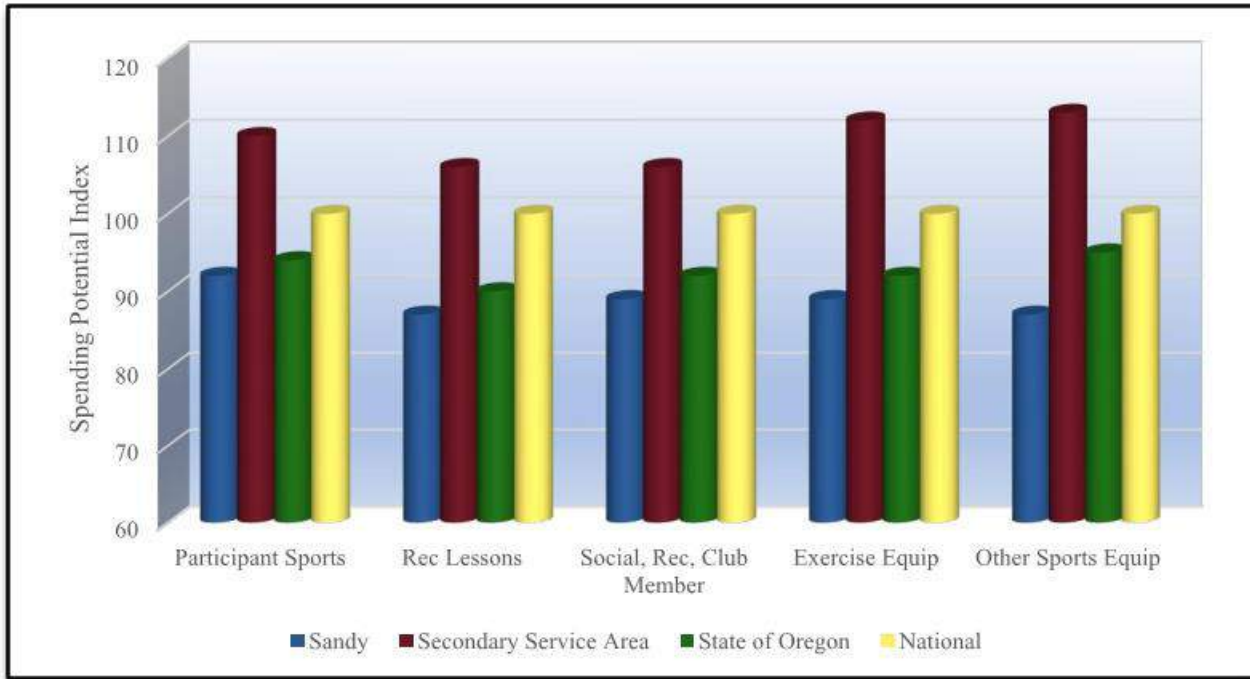
**Average Amount Spent:** The average amount spent for the service or item in a year.

**SPI:** Spending potential index as compared to the national number of 100.

<sup>4</sup> Consumer Spending data are derived from the 2006 and 2007 Consumer Expenditure Surveys, Bureau of Labor Statistics.

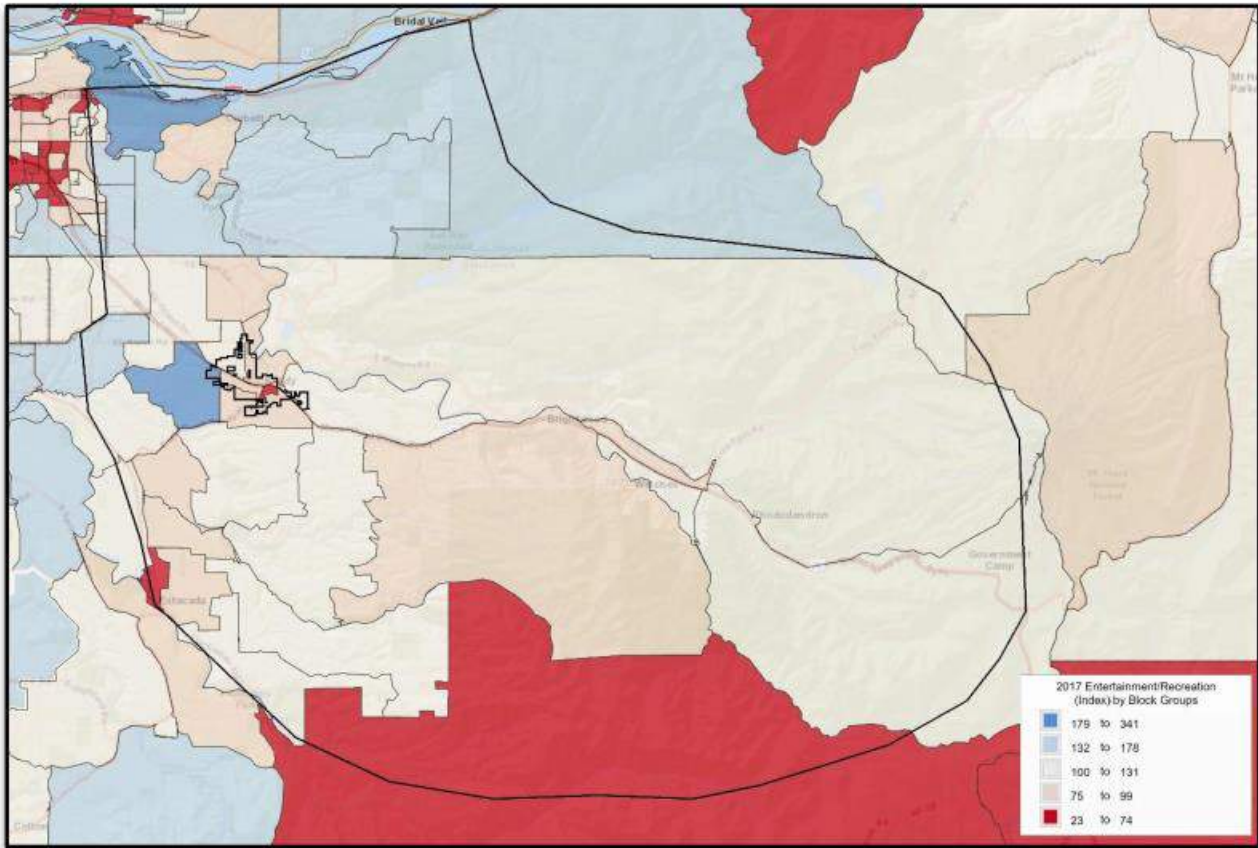


**Chart E – Recreation Spending Potential Index:**





**Map D – Recreation Spending Potential Index by Census Block Group**





**Population Distribution by Age:** Utilizing census information for Sandy and the Secondary Service Area, the following comparisons are possible.

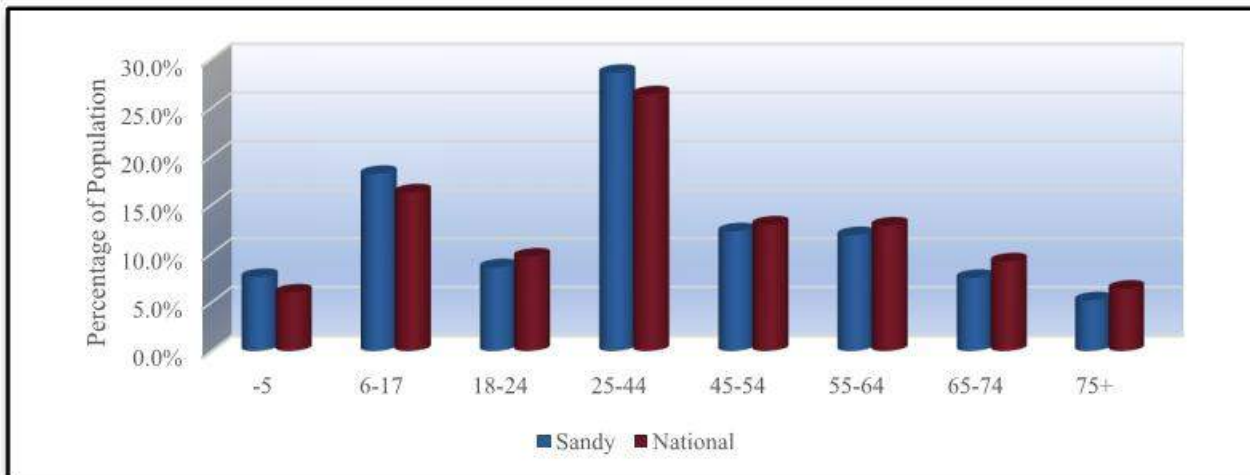
**Table G – 2017 Sandy Age Distribution**

(ESRI estimates)

Ages	Population	% of Total	Nat. Population	Difference
0-5	853	7.6%	6.0%	+1.6%
5-17	2,043	18.2%	16.3%	+1.9%
18-24	949	8.6%	9.7%	-1.1%
25-44	3,211	28.6%	26.4%	+2.2%
45-54	1,367	12.3%	13.0%	-0.7%
55-64	1,340	11.9%	12.9%	-1.0%
65-74	846	7.5%	9.2%	-1.7%
75+	576	5.2%	6.4%	-1.2%

- Population:** 2017 census estimates in the different age groups in Sandy.
- % of Total:** Percentage of the Sandy population in the age group.
- National Population:** Percentage of the national population in the age group.
- Difference:** Percentage difference between Sandy population and the national population.

**Chart F – 2017 Sandy Age Group Distribution**



The demographic makeup of Sandy, when compared to the characteristics of the national population, indicates that there are some differences with a larger population in the younger age groups, 0-5, 6-17 and 25-44. There is a smaller population in the older age groups. The greatest positive variance is in the 25-44 age group with +2.2%, while the greatest negative variance is in the 65-74 age group with -1.7%.

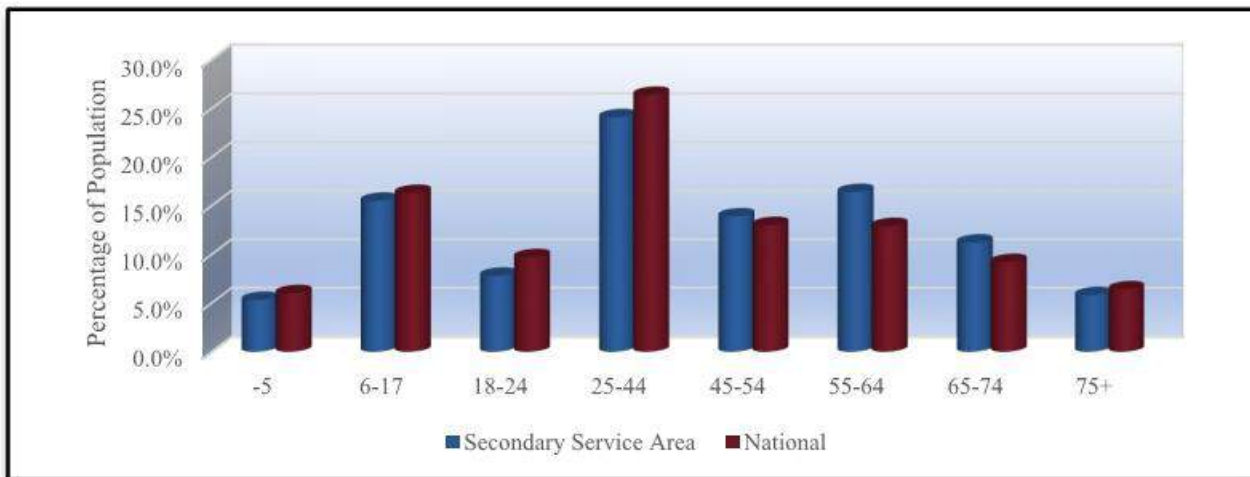
**Table H – 2017 Secondary Service Area Age Distribution**

(ESRI estimates)

Ages	Population	% of Total	Nat. Population	Difference
0-5	2,995	5.3%	6.0%	-0.7%
5-17	8,825	15.5%	16.3%	-0.8%
18-24	4,395	7.8%	9.7%	-1.9%
25-44	13,643	24.1%	26.4%	-2.3%
45-54	7,849	13.9%	13.0%	+0.9%
55-64	9,308	16.4%	12.9%	+3.5%
65-74	6,359	11.2%	9.2%	+2.0%
75+	3,266	5.8%	6.4%	-0.6%

- Population:** 2017 census estimates in the different age groups in the Secondary Service Area.
- % of Total:** Percentage of the Secondary Service Area population in the age group.
- National Population:** Percentage of the national population in the age group.
- Difference:** Percentage difference between Secondary Service Area population and the national population.

**Chart G – 2017 Secondary Service Area Age Group Distribution**



The demographic makeup of the Secondary Service Area, when compared to the characteristics of the national population, indicates that there are some differences with a larger population in the age groups 45+ and a smaller population in the 0-44 age groups. The greatest positive variance is in the 55-64 age group with +3.5%, while the greatest negative variance is in the 25-44 age group with -2.3%.

**Population Distribution Comparison by Age:** Utilizing census information from Sandy and the Secondary Service Area, the following comparisons are possible.

**Table I – 2017 Sandy Population Estimates**

(U.S. Census Information and ESRI)

Ages	2010 Census	2017 Projection	2022 Projection	Percent Change	Percent Change Nat'l
-5	825	853	920	+11.5%	+2.3%
5-17	1,954	2,043	2,347	+20.1%	+0.7%
18-24	839	949	890	+6.1%	+0.2%
25-44	2,823	3,211	3,568	+26.4%	+11.4%
45-54	1,236	1,367	1,433	+15.9%	-9.4%
55-64	916	1,340	1,333	+45.5%	+18.2%
65-74	496	846	1,049	+111.5%	+61.8%
75+	481	576	665	+38.3%	+34.7%

**Chart H – Sandy Population Growth**

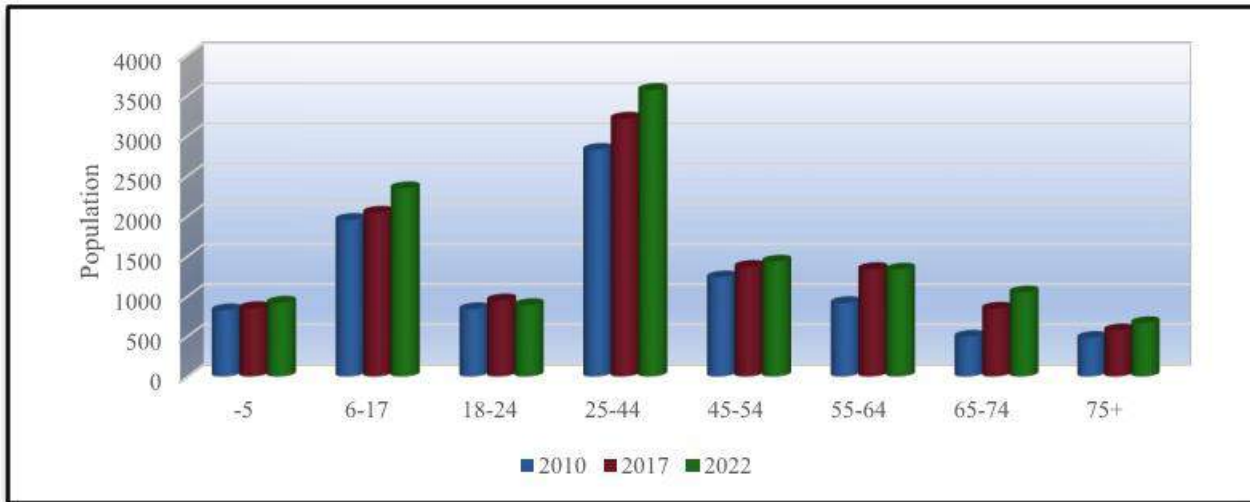


Table-I illustrates the growth or decline in age group numbers from the 2010 census until the year 2022. It is projected that all of the age categories will see an increase in population. The population of the United States as a whole is aging, and it is not unusual to find negative growth numbers in the younger age groups and significant net gains in the 45 plus age groupings in communities which are relatively stable in their population numbers.

**Table J – 2017 Secondary Service Area Population Estimates**

(U.S. Census Information and ESRI)

Ages	2010 Census	2017 Projection	2022 Projection	Percent Change	Percent Change Nat'l
-5	2,862	2,995	3,141	+9.7%	+2.3%
5-17	9,243	8,825	9,202	-0.4%	+0.7%
18-24	3,964	4,395	3,996	+0.8%	+0.2%
25-44	12,325	13,643	14,798	+20.1%	+11.4%
45-54	8,578	7,849	7,586	-11.6%	-9.4%
55-64	7,952	9,308	9,177	+15.4%	+18.2%
65-74	4,094	6,359	8,019	+95.9%	+61.8%
75+	2,604	3,266	4,393	+68.7%	+34.7%

**Chart I – Secondary Service Area Population Growth**

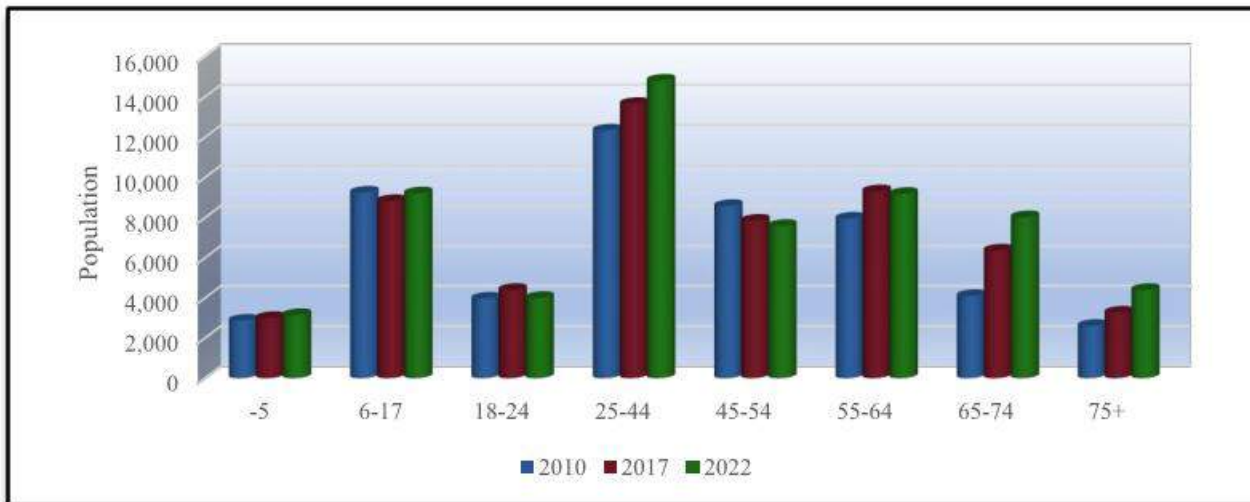


Table-J illustrates the growth or decline in age group numbers from the 2010 census until the year 2022. It is projected that all of the age categories, except 5-17 and 45-54, will see an increase in population. The population of the United States as a whole is aging, and it is not unusual to find negative growth numbers in the younger age groups and significant net gains in the 45 plus age groupings in communities which are relatively stable in their population numbers.

**Ethnicity and Race:** Below is listed the distribution of the population by ethnicity and race for Sandy and the Secondary Service Area for 2017 population projections. Those numbers were developed from 2010 Census Data.

**Table K– Sandy Ethnic Population and Median Age 2017**

(Source – U.S. Census Bureau and ESRI)

Ethnicity	Total Population	Median Age	% of Population	% of OR Population
Hispanic	901	23.2	8.1%	13.2%

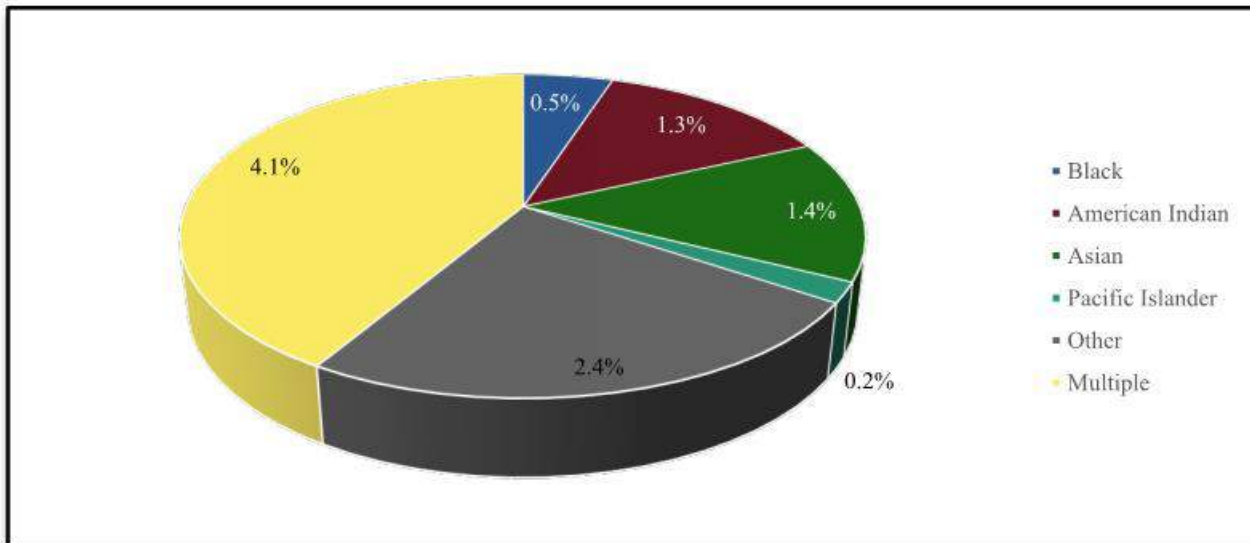
**Table L – Sandy by Race and Median Age 2017**

(Source – U.S. Census Bureau and ESRI)

Race	Total Population	Median Age	% of Population	% of OR Population
White	10,080	36.8	90.1%	81.4%
Black	54	38.0	0.5%	2.0%
American Indian	148	37.2	1.3%	1.4%
Asian	155	36.0	1.4%	4.5%
Pacific Islander	28	27.5	0.2%	0.4%
Other	269	28.8	2.4%	6.0%
Multiple	463	15.8	4.1%	4.3%

2017 Sandy Total Population: 11,188 Residents

**Chart J – 2017 Sandy Population by Non-White Race**



**Table M – Secondary Service Area Ethnic Population and Median Age 2017**

(Source – U.S. Census Bureau and ESRI)

Ethnicity	Total Population	Median Age	% of Population	% of CO Population
Hispanic	4,358	25.5	7.7%	13.2%

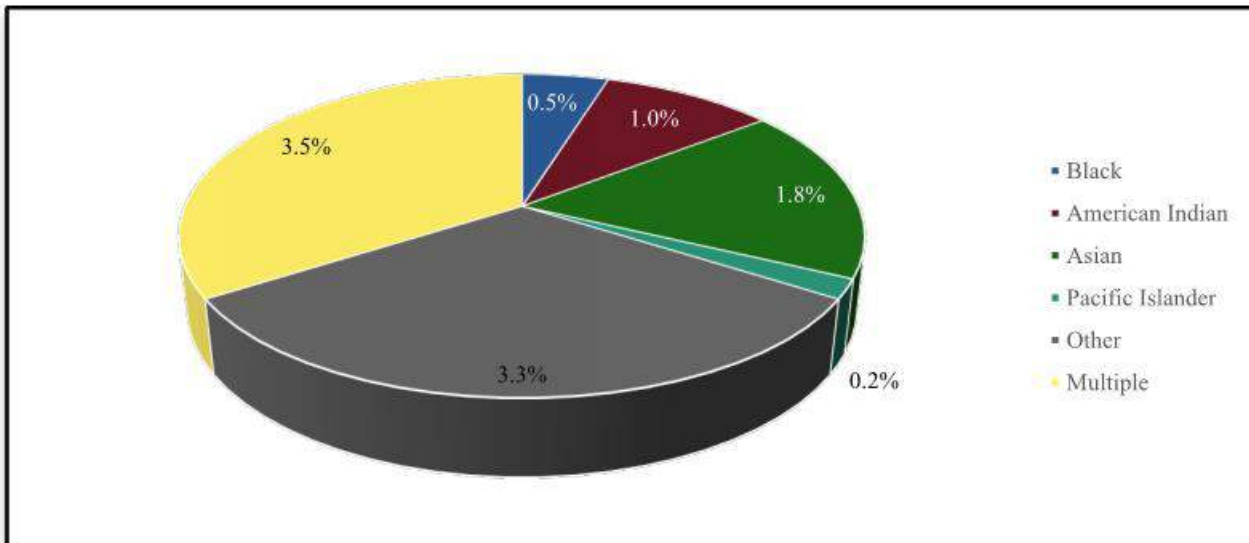
**Table N – Secondary Service Area by Race and Median Age 2017**

(Source – U.S. Census Bureau and ESRI)

Race	Total Population	Median Age	% of Population	% of CO Population
White	50,806	44.6	89.7%	81.4%
Black	309	36.9	0.5%	2.0%
American Indian	558	37.3	1.0%	1.4%
Asian	1,021	39.4	1.8%	4.5%
Pacific Islander	119	34.4	0.2%	0.4%
Other	1,862	27.1	3.3%	6.0%
Multiple	1,966	20.8	3.5%	4.3%

2017 Secondary Service Area Total Population: 56,650 Residents

**Chart K – 2017 Secondary Service Area Population by Non-White Race**



### **Tapestry Segmentation**

Tapestry segmentation represents the 4<sup>th</sup> generation of market segmentation systems that began 30 years ago. The 65-segment Tapestry Segmentation system classifies U.S. neighborhoods based on their socioeconomic and demographic compositions. While the demographic landscape of the U.S. has changed significantly since the 2000 Census, the tapestry segmentation has remained stable as neighborhoods have evolved.

There is value including this information for Sandy and the Secondary Service Area. The data assists the organization in understanding the consumers/constituents in their service area and supply them with the right recreation facilities and services.

The Tapestry segmentation system classifies U.S. neighborhoods into 65 unique market segments. Neighborhoods are sorted by more than 60 attributes including; income, employment, home value, housing types, education, household composition, age and other key determinates of consumer behavior.

The following pages and tables outline the top 5 tapestry segments in each of the service areas and provides a brief description of each. This information combined with the key indicators and demographic analysis of each service area help further describe the markets that the Secondary Service Area looks to serve with recreation programs, services, and special events.

For comparison purposes the following are the top 10 Tapestry segments, along with percentage in the United States:

1. Green Acres (6A)	3.2%
2. Southern Satellites (10A)	3.2%
3. Savvy Suburbanites (1D)	3.0%
4. Salt of the Earth (6B)	2.9%
5. Soccer Moms (4A)	<u>2.8%</u>
	<b>15.1%</b>
6. Middleburg (4C)	2.8%
7. Midlife Constants (5E)	2.5%
8. Comfortable Empty Nesters (5A)	2.5%
9. Heartland Communities (6F)	2.4%
10. Old and Newcomers (8F)	<u>2.3%</u>
	<b>12.5%</b>

**Table O – Sandy Tapestry Segment Comparison**

(ESRI estimates)

	Sandy		Demographics	
	Percent	Cumulative Percent	Median Age	Median HH Income
Middleburg (4C)	75.7%	75.7%	35.3	\$55,000
Parks and Rec (5C)	22.3%	98.0%	40.3	\$55,000
Salt of the Earth (6B)	1.8%	99.8%	43.1	\$53,000
Exurbanites (1E)	0.2%	100.0%	49.6	\$98,000

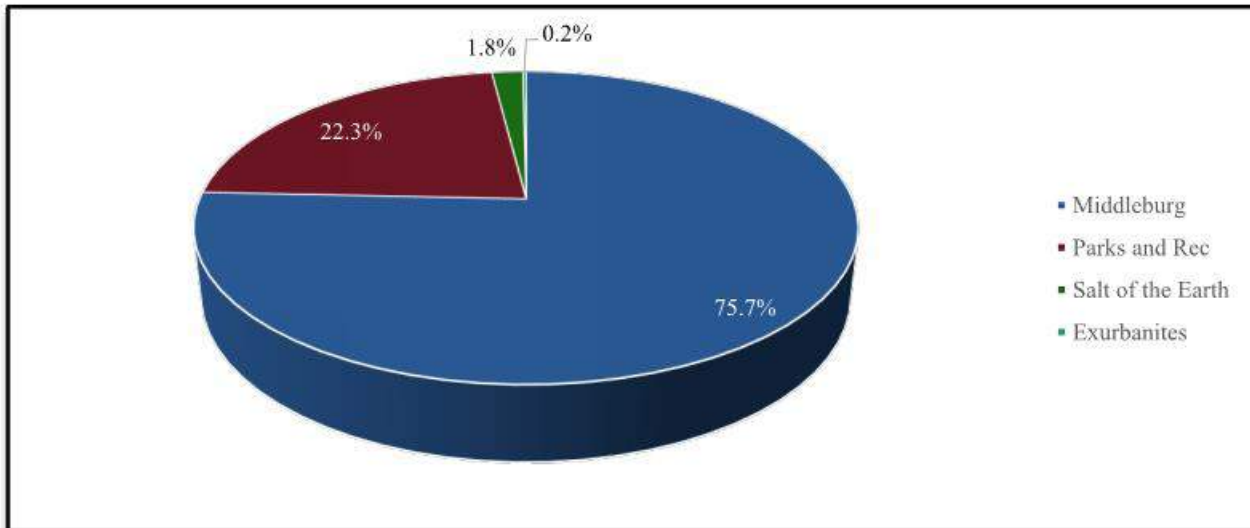
**Middleburg (4C)** – This market is relatively young, conservative and family-oriented. They stay active and enjoy sports in the outdoors such as hunting and baseball.

**Parks and Rec (5C)** – Families are dual income with children independent in school/college. Careful research and budget conscious consumers that seek convenience and local sports activities.

**Salt of the Earth (6B)** – Entrenched in a traditional, rural lifestyle, residents cherish families and the outdoors. They handle tasks around the home by themselves and don't embrace technology.

**Exurbanites (1E)** – Although retirement beckons for this age group, they are not slowing down. They are active in the community and support the arts. They also stay physically fit.

**Chart L – Sandy Tapestry Segment Representation by Percentage:**





**Table P – Secondary Service Area Tapestry Segment Comparison**  
 (ESRI estimates)

	Secondary Service Area		Demographics	
	Percent	Cumulative Percent	Median Age	Median HH Income
The Great Outdoors (6C)	32.4%	32.4%	46.3	\$53,000
Middleburg (4C)	17.0%	49.4%	35.3	\$55,000
Soccer Moms (4A)	10.0%	59.4%	36.6	\$84,000
Salt of the Earth (6B)	6.7%	66.1%	43.1	\$53,000
Green Acres (6A)	6.6%	72.7%	43.0	\$72,000

**The Great Outdoors (6C)** – Well-educated empty nesters that are active but live a modest lifestyle. Retirement is near for many. They enjoy hiking, hunting and fishing.

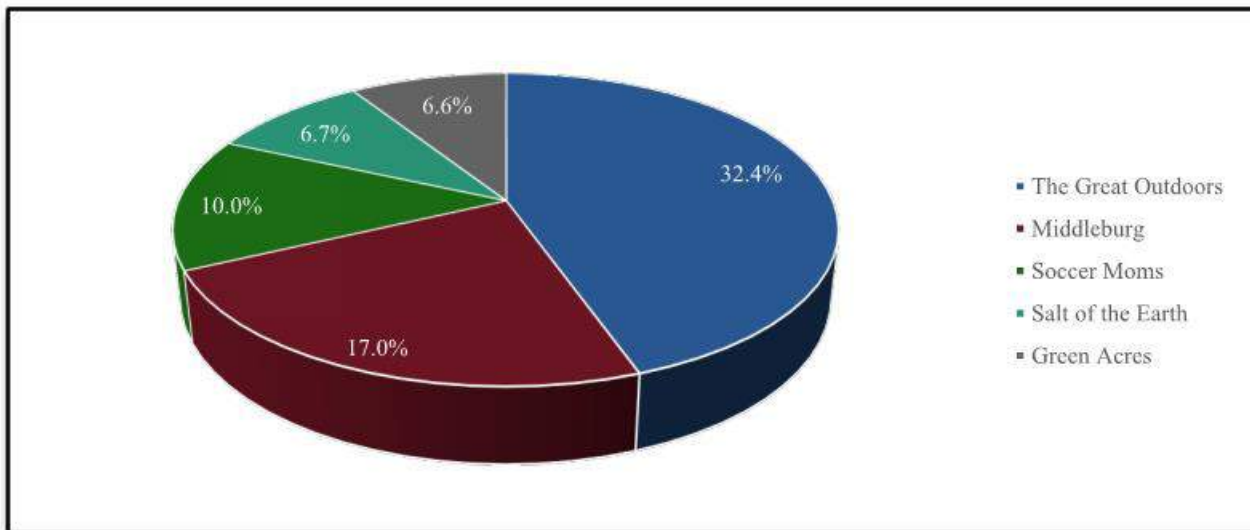
**Middleburg (4C)** – This market is relatively young, conservative and family-oriented. They stay active and enjoy sports in the outdoors such as hunting and baseball.

**Soccer Moms (4A)** – Families with a hectic pace with two working parents and active, growing children. They stay connected to the internet to save time.

**Salt of the Earth (6B)** – Entrenched in a traditional, rural lifestyle, residents cherish families and the outdoors. They handle tasks around the home by themselves and don't embrace technology.

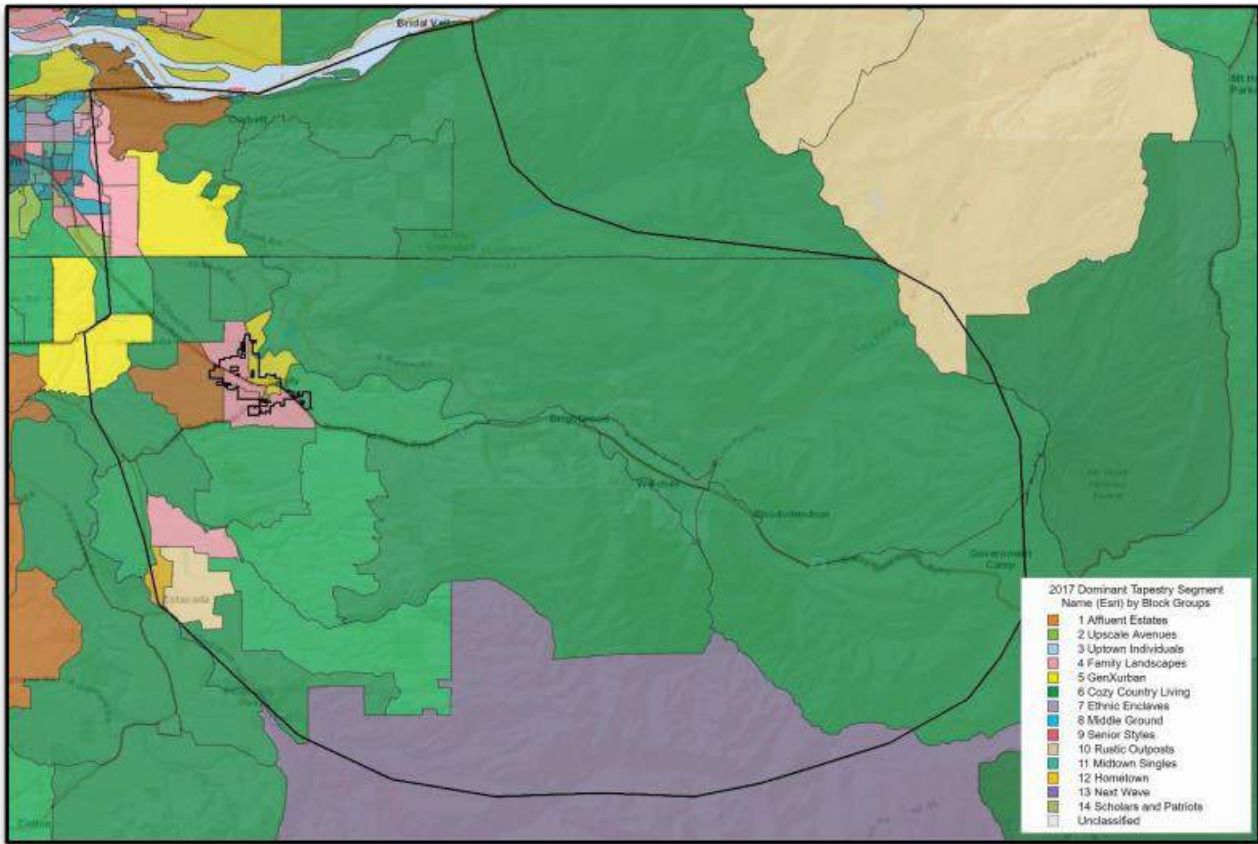
**Green Acres (6A)** – Avid do-it-yourselfers, they also enjoy the outdoors and a variety of sports. Consumers are cautious and focus on quality and durability.

**Chart M – Secondary Service Area Tapestry Segment Representation by Percentage:**





**Map E – Dominant Tapestry Segment by Census Block Group**



**Demographic Summary**

The following summarizes the demographic characteristics of the service areas.

**Sandy**

- The City has a reasonably small population at just over 11,000.
- The population is expected to continue to grow at a fast rate.
- The population is younger, and has a high number of households with children.
- The household income level is higher than the national number and the state of Oregon but lower than the Secondary Service Area.
- The cost of living is lower than other areas of Oregon but expenditures for recreation purposes are also lower.
- There is not much cultural diversity.

**Secondary Service Area**

The characteristics of the Secondary Service Area are considerably different that the City of Sandy.

- The population is much larger at nearly 57,000 (these numbers include the Sandy population).
- The population is expected to continue to grow at a fast rate.
- The population is older than all other benchmarks and has a lower number of households with children than Sandy.
- The household income level is higher than all other benchmarks.
- The cost of living is higher than other areas of Oregon but expenditures for recreation purposes are also higher.
- There is not much cultural diversity.

## **Recreation Participation, Trends & Providers**

In addition to analyzing the demographic realities of the service areas, it is possible to project possible participation in recreation and sport activities.

**Sports Participation Numbers:** On an annual basis, the National Sporting Goods Association (NSGA) conducts an in-depth study and survey of how Americans spend their leisure time. This information provides the data necessary to overlay rate of participation onto the Secondary Service Area to determine market potential. The information contained in this section of the report, utilizes the NSGA's most recent survey. For that data was collected in 2016 and the report was issued in June of 2017.

B\*K takes the national average and combines that with participation percentages of the Secondary Service Area based upon age distribution, median income, region and National number. Those four percentages are then averaged together to create a unique participation percentage for the service area. This participation percentage when applied to the population of the Secondary Service Area then provides an idea of the market potential for various activities.

**Community Recreation Related Activities Participation:** These activities are could take place at an indoor or outdoor community recreation center space.

**Table O –Sports Participation Rates for Sandy**

	<b>Age</b>	<b>Income</b>	<b>Region</b>	<b>Nation</b>	<b>Average</b>
Aerobics	15.4%	17.0%	16.2%	15.5%	16.0%
Baseball	4.4%	3.8%	4.9%	4.1%	4.3%
Basketball	8.8%	8.2%	8.2%	8.4%	8.4%
Exercise Walking	35.5%	37.8%	36.6%	36.0%	36.5%
Exercise w/ Equipment	19.2%	22.4%	20.3%	19.5%	20.4%
Football (flag)	2.4%	2.3%	2.4%	2.3%	2.4%
Football (tackle)	2.8%	2.5%	2.4%	2.7%	2.6%
Hiking	14.7%	16.4%	19.5%	14.6%	16.3%
Lacrosse	1.0%	0.8%	1.4%	1.0%	1.1%
Mountain Biking	2.0%	2.0%	2.5%	2.0%	2.1%
Running/Jogging	15.7%	16.4%	14.9%	15.3%	15.6%
Soccer	5.1%	4.8%	5.1%	4.8%	5.0%
Softball	3.4%	2.9%	3.3%	3.3%	3.2%
Swimming	15.8%	16.0%	13.8%	15.5%	15.3%
Volleyball	3.8%	3.2%	4.7%	3.6%	3.8%
Weight Lifting	12.1%	14.2%	12.6%	12.1%	12.8%
Workout at Clubs	12.8%	14.1%	14.8%	12.9%	13.6%
Did Not Participate	22.4%	21.8%	20.4%	22.4%	21.7%

**Age:** Participation based on individuals ages 7 & Up of Sandy.  
**Income:** Participation based on the 2016 estimated median household income in Sandy.  
**Region:** Participation based on regional statistics (Pacific).  
**National:** Participation based on national statistics.  
**Average:** Average of the four columns.

**Note:** “Did Not Participate” refers to all 55 activities tracked by the NSGA.

**Table R –Sports Participation Rates for Secondary Service Area**

	<b>Age</b>	<b>Income</b>	<b>Region</b>	<b>Nation</b>	<b>Average</b>
Aerobics	15.4%	17.0%	16.2%	15.5%	16.0%
Baseball	3.8%	3.8%	4.9%	4.1%	4.2%
Basketball	7.7%	8.2%	8.2%	8.4%	8.1%
Exercise Walking	36.8%	37.8%	36.6%	36.0%	36.8%
Exercise w/ Equipment	19.3%	22.4%	20.3%	19.5%	20.4%
Football (flag)	2.1%	2.3%	2.4%	2.3%	2.3%
Football (tackle)	2.5%	2.5%	2.4%	2.7%	2.5%
Hiking	14.3%	16.4%	19.5%	14.6%	16.2%
Lacrosse	0.9%	0.8%	1.4%	1.0%	1.0%
Mountain Biking	1.8%	2.0%	2.5%	2.0%	2.1%
Running/Jogging	14.3%	16.4%	14.9%	15.3%	15.2%
Soccer	4.4%	4.8%	5.1%	4.8%	4.8%
Softball	3.1%	2.9%	3.3%	3.3%	3.1%
Swimming	15.3%	16.0%	13.8%	15.5%	15.2%
Volleyball	3.3%	3.2%	4.7%	3.6%	3.7%
Weight Lifting	11.7%	14.2%	12.6%	12.1%	12.7%
Workout at Clubs	12.5%	14.1%	14.8%	12.9%	13.6%
Did Not Participate	22.7%	21.8%	20.4%	22.4%	21.8%

**Age:** Participation based on individuals ages 7 & Up of Secondary Service Area.  
**Income:** Participation based on the 2016 estimated median household income in Secondary Service Area.  
**Region:** Participation based on regional statistics (Pacific).  
**National:** Participation based on national statistics.  
**Average:** Average of the four columns.

**Note:** “Did Not Participate” refers to all 55 activities tracked by the NSGA.

**Anticipated Sports Participation Numbers:** Utilizing the average percentage from Table-R above plus the 2010 census information and census estimates for 2017 and 2022 (over age 7) the following comparisons are available.

**Table S –Sports Participation Growth or Decline in Sandy**

	Average	2010 Population	2017 Population	2022 Population	Difference
Aerobics	16.0%	1,351	1,602	1,749	398
Baseball	4.3%	362	429	469	107
Basketball	8.4%	708	839	916	209
Exercise Walking	36.5%	3,073	3,644	3,978	906
Exercise w/ Equipment	20.4%	1,715	2,034	2,220	505
Football (flag)	2.4%	198	235	257	58
Football (tackle)	2.6%	220	260	284	65
Hiking	16.3%	1,373	1,628	1,778	405
Lacrosse	1.1%	89	106	115	26
Mountain Biking	2.1%	180	213	233	53
Running/Jogging	15.6%	1,313	1,557	1,700	387
Soccer	5.0%	418	496	541	123
Softball	3.2%	272	322	352	80
Swimming	15.3%	1,288	1,527	1,667	380
Volleyball	3.8%	322	382	417	95
Weight Lifting	12.8%	1,075	1,275	1,392	317
Workout at Clubs	13.6%	1,150	1,364	1,489	339
Did Not Participate	21.7%	1,832	2,172	2,371	540

**Note:** These figures do not necessarily translate into use figures for various activities or programs in Sandy. The “Did Not Participate” statistics refers to all 55 activities outlined in the NSGA 2016 Survey Instrument.

**Table T –Sports Participation Growth or Decline in Secondary Service Area**

	Average	2010 Population	2017 Population	2022 Population	Difference
Aerobics	16.0%	7,618	8,395	8,952	1,334
Baseball	4.2%	1,975	2,177	2,321	346
Basketball	8.1%	3,866	4,261	4,543	677
Exercise Walking	36.8%	17,510	19,296	20,576	3,066
Exercise w/ Equipment	20.4%	9,693	10,681	11,389	1,697
Football (flag)	2.3%	1,079	1,189	1,267	189
Football (tackle)	2.5%	1,195	1,317	1,405	209
Hiking	16.2%	7,705	8,491	9,054	1,349
Lacrosse	1.0%	487	537	572	85
Mountain Biking	2.1%	991	1,093	1,165	174
Running/Jogging	15.2%	7,238	7,976	8,505	1,267
Soccer	4.8%	2,266	2,497	2,663	397
Softball	3.1%	1,496	1,649	1,758	262
Swimming	15.2%	7,211	7,946	8,473	1,262
Volleyball	3.7%	1,765	1,945	2,074	309
Weight Lifting	12.7%	6,020	6,634	7,074	1,054
Workout at Clubs	13.6%	6,461	7,120	7,592	1,131
Did Not Participate	21.8%	10,385	11,444	12,203	1,818

**Note:** These figures do not necessarily translate into use figures for various activities or programs in Sandy. The “Did Not Participate” statistics refers to all 55 activities outlined in the NSGA 2016 Survey Instrument.



**Participation by Ethnicity and Race:** The table below compares the overall rate of participation nationally with the rate for Hispanics and African Americans. Utilizing information provided by the National Sporting Goods Association's 2016 survey, the following comparisons are possible.

**Table U – Comparison of National, African American and Hispanic Participation Rates**

Indoor Activity	Sandy	National Participation	African American Participation	Hispanic Participation
Aerobics	16.0%	15.5%	13.9%	14.6%
Baseball	4.3%	4.1%	3.7%	4.3%
Basketball	8.4%	8.4%	12.8%	10.2%
Exercise Walking	36.5%	36.0%	32.5%	30.5%
Exercise w/ Equipment	20.4%	19.5%	17.5%	18.4%
Football (flag)	2.4%	2.3%	460.0%	3.2%
Football (tackle)	2.6%	2.7%	4.5%	3.1%
Hiking	16.3%	14.6%	5.1%	15.4%
Lacrosse	1.1%	1.0%	0.4%	1.0%
Mountain Biking	2.1%	2.0%	1.2%	2.8%
Running/Jogging	15.6%	15.3%	14.6%	17.3%
Soccer	5.0%	4.8%	3.7%	7.8%
Softball	3.2%	3.3%	2.8%	3.4%
Swimming	15.3%	15.5%	9.3%	14.1%
Volleyball	3.8%	3.6%	3.7%	5.3%
Weight Lifting	12.8%	12.1%	13.9%	11.2%
Workout at Clubs	13.6%	12.9%	10.9%	13.1%
Did Not Participate	21.7%	22.4%	26.3%	23.6%

**Secondary Service Part:** The unique participation percentage developed for Sandy.  
**National Rate:** The national percentage of individuals who participate in the given activity.  
**African American Rate:** The percentage of African-Americans who participate in the given activity.  
**Hispanic Rate:** The percentage of Hispanics who participate in the given activity.

There is an Hispanic population of 8.7% in Sandy. As such these numbers do play a factor with regard to overall participation in sports activities.

**Table V – Comparison of National, African American and Hispanic Participation Rates**

Indoor Activity	Secondary Service Area	National Participation	African American Participation	Hispanic Participation
Aerobics	16.0%	15.5%	13.9%	14.6%
Baseball	4.2%	4.1%	3.7%	4.3%
Basketball	8.1%	8.4%	12.8%	10.2%
Exercise Walking	36.8%	36.0%	32.5%	30.5%
Exercise w/ Equipment	20.4%	19.5%	17.5%	18.4%
Football (flag)	2.3%	2.3%	460.0%	3.2%
Football (tackle)	2.5%	2.7%	4.5%	3.1%
Hiking	16.2%	14.6%	5.1%	15.4%
Lacrosse	1.0%	1.0%	0.4%	1.0%
Mountain Biking	2.1%	2.0%	1.2%	2.8%
Running/Jogging	15.2%	15.3%	14.6%	17.3%
Soccer	4.8%	4.8%	3.7%	7.8%
Softball	3.1%	3.3%	2.8%	3.4%
Swimming	15.2%	15.5%	9.3%	14.1%
Volleyball	3.7%	3.6%	3.7%	5.3%
Weight Lifting	12.7%	12.1%	13.9%	11.2%
Workout at Clubs	13.6%	12.9%	10.9%	13.1%
Did Not Participate	21.8%	22.4%	26.3%	23.6%

**Secondary Service Part:** The unique participation percentage developed for Secondary Service Area.  
**National Rate:** The national percentage of individuals who participate in the given activity.  
**African American Rate:** The percentage of African-Americans who participate in the given activity.  
**Hispanic Rate:** The percentage of Hispanics who participate in the given activity.

There is an Hispanic population of 7.7% in Secondary Service Area. As such these numbers do play a factor regarding overall participation.

**Summary of Sports Participation:** The following chart summarizes participation for indoor and outdoor activities utilizing information from the 2016 National Sporting Goods Association survey.

**Table W – Sports Participation Summary**

Sport	Nat'l Rank <sup>5</sup>	Nat'l Participation (in millions)
Exercise Walking	1	105.7
Exercising w/ Equipment	2	57.1
Swimming	3	45.6
Aerobic Exercising	4	45.6
Running/Jogging	5	44.9
Hiking	6	42.9
Camping	7	40.4
Workout @ Club	8	37.8
Bicycle Riding	9	36.2
Weight Lifting	10	35.6
Basketball	14	24.8
Soccer	20	14.1
Baseball	23	12.2
Volleyball	24	10.7
Softball	26	9.6
Football (tackle)	33	7.9
Football (flag)	35	6.6
Mountain Biking	40	5.7
Lacrosse	53	2.9

**Nat'l Rank:** Popularity of sport based on national survey.

**Nat'l Participation:** Percent of population that participate in this sport on national survey.

<sup>5</sup> This rank is based upon the 55 activities reported on by NSGA in their 2016 survey instrument.

**Participation by Age Group:** Within the NSGA survey, participation is broken down by age groups. As such, B\*K can identify the top 3 age groups participating in the activities reflected in this report.

**Table X – Participation by Age Group:**

<b>Activity</b>	<b>Largest</b>	<b>Second Largest</b>	<b>Third Largest</b>
Aerobics	25-34	35-44	45-54
Baseball	7-11	12-17	25-34
Basketball	12-17	7-11	18-24
Exercise Walking	45-54	55-67	75+
Exercise w/ Equipment	25-34	45-54	18-24
Football (flag)	7-11	12-17	25-34
Football (tackle)	12-17	7-11	18-24
Hiking	25-34	35-44	45-54
Lacrosse	12-17	7-11	18-24
Mountain Biking	25-34	35-44	18-24
Running/Jogging	25-34	18-24	12-17
Soccer	7-11	12-17	18-24
Softball	12-17	7-11	25-34
Swimming	7-11	12-17	35-44
Volleyball	12-17	7-11	18-24
Weight Lifting	25-34	18-24	35-44
Workout at Clubs	25-34	18-24	35-44
Did Not Participate	7-11	75+	55-64

**Largest:** Age group with the highest rate of participation.  
**Second Largest:** Age group with the second highest rate of participation.  
**Third Largest:** Age group with the third highest rate of participation.

**Market Potential Index for Adult Sports Participation:** In addition to examining the participation numbers for various recreation activities through the NSGA 2016 Survey and the Spending Potential Index for Entertainment & Recreation, B\*K can access information about Sports & Leisure Market Potential. The following information illustrates participation rates for adults in various activities in Sandy and the Secondary Service Area.

**Table Y – Market Potential Index for Adult Participation in Activities in Sandy**

<b>Adults participated in:</b>	<b>Expected Number of Adults</b>	<b>Percent of Population</b>	<b>MPI</b>
Aerobics	738	8.9%	108
Baseball	464	5.6%	123
Basketball	765	9.2%	109
Exercise Walking	2,312	27.9%	103
Football	463	5.6%	110
Hiking	811	9.8%	94
Mountain Biking	341	4.1%	100
Running/Jogging	1,144	13.8%	103
Soccer	339	4.1%	95
Softball	288	3.5%	106
Swimming	1,364	16.5%	106
Volleyball	283	3.4%	102
Weight Lifting	839	10.1%	100

**Expected # of Adults:** Number of adults, 18 years of age and older, participating in the activity in Sandy.

**Percent of Population:** Percent of the service area that participates in the activity.

**MPI:** Market potential index as compared to the national number of 100.

This table indicates that the overall propensity for adults to participate in the activities listed is greater than the national number of 100 in all but hiking and soccer.

**Table Z – Market Potential Index for Adult Participation in Activities in the Secondary Service Area**

<b>Adults participated in:</b>	<b>Expected Number of Adults</b>	<b>Percent of Population</b>	<b>MPI</b>
Aerobics	3,806	8.5%	103
Baseball	2,092	4.7%	102
Basketball	3,478	7.8%	92
Exercise Walking	12,857	28.7%	106
Football	2,118	4.7%	93
Hiking	4,869	10.9%	105
Mountain Biking	2,066	4.6%	112
Running/Jogging	5,902	13.2%	98
Soccer	1,548	3.5%	80
Softball	1,366	3.0%	93
Swimming	7,558	16.9%	108
Volleyball	1,355	3.0%	91
Weight Lifting	4,369	9.7%	96

**Expected # of Adults:** Number of adults, 18 years of age and older, participating in the activity in the Secondary Service Area.

**Percent of Population:** Percent of the service area that participates in the activity.

**MPI:** Market potential index as compared to the national number of 100.

This table does not indicate the same level of adult participation as in Sandy.

**Sports Participation Trends:** Below are listed several sports activities and the percentage of growth or decline that each has experienced nationally over the last ten years (2007-2016).

**Table AA – National Activity Trend (in millions)**

*Increasing in Popularity*

	2007 Participation	2016 Participation	Percent Change
Yoga	10.7	30.3	183.2%
Lacrosse	1.2	2.9	141.7%
Hockey (ice)	2.1	3.4	61.9%
Running/Jogging	30.4	44.9	47.7%
Wrestling	2.1	3.0	42.9%
Aerobic Exercising	34.8	45.6	31.0%
Exercise Walking	89.8	105.7	17.7%
Weight Lifting	33.2	35.6	7.2%
Basketball	24.1	24.8	2.9%
Workout @ Club	36.8	37.8	2.7%
Tennis	12.3	12.6	2.4%
Soccer	13.8	14.0	1.4%

*Decreasing in Popularity*

	2007 Participation	2016 Participation	Percent Change
Bicycle Riding	37.4	36.2	-3.2%
Ice/Figure Skating	8.2	7.7	-6.1%
Volleyball	12.0	10.7	-10.8%
Swimming	52.3	45.6	-12.8%
Baseball	14.0	12.2	-12.9%
Football (tackle)	9.2	7.9	-14.1%
Golf	22.7	18.5	-18.5%
Softball	12.4	9.6	-22.3%

**2016 Participation:** The number of participants per year in the activity (in millions) in the United States.

**2007 Participation:** The number of participants per year in the activity (in millions) in the United States.

**Percent Change:** The percent change in the level of participation from 2007 to 2016.

**Non-Sport Participation Statistics:** It is important to note the participation rates in non-sport activities. While there is not an abundance of information available for participation in these types of activities as compared to sports, there are statistics that can be utilized to help determine the market for cultural arts activities and events.

There are many ways to measure a nation's cultural vitality. One way is to chart the public's involvement with arts events and other activities over time. The NEA's Survey of Public Participation in the Arts remains the largest periodic study of arts participation in the United States. It tracks various arts activities that Americans (aged 18 and over) report having done in the course of a year. It also asks questions about adults' preferences for different kinds of music, and it seeks to understand participation in non-arts leisure events such as sports and exercise, outdoor activities and civic and social affairs.

The participation numbers for these activities are national numbers and the information falls into the following categories:

- Visual & Performing Arts Attendance
- Arts Consumption Through Electronic Media
- Creating, Performing and Sharing Art
- Participation in Arts Learning Activities
- Reading and Film Attendance



*Visual & Performing Arts Attendance*

**Table AB – Percentage of U.S. Adult Attending a Performing Arts Activity at Least Once in the Past 12-Months**

<b>Music</b>	<b>2002</b>	<b>2008</b>	<b>2012</b>	<b>Rate of Change</b>	
				<b>2002-2008</b>	<b>2008-2012</b>
Jazz	10.8%	7.8%	8.1%	-3.0%	+0.3%
Classical Music	11.6%	9.3%	8.8%	-2.3%	-0.5%
Opera	3.2%	2.1%	2.1%	-1.1%	+0.0%
Latin Music	Not Asked	4.9%	5.1%	NA	+0.2%
Outdoor Performing Arts Festival	Not Asked	20.8%	20.8%	NA	+0.0%

<b>Plays</b>	<b>2002</b>	<b>2008</b>	<b>2012</b>	<b>Rate of Change</b>	
				<b>2002-2008</b>	<b>2008-2012</b>
Musical Plays	17.1%	16.7%	15.2%	-0.4%	-1.5%
Non-Musical Plays	12.3%	9.4%	8.3%	-2.9%	-1.1%

<b>Dance</b>	<b>2002</b>	<b>2008</b>	<b>2012</b>	<b>Rate of Change</b>	
				<b>2002-2008</b>	<b>2008-2012</b>
Ballet	3.9%	2.9%	2.7%	-1.0%	-0.2%
Other Dance	6.3%	5.2%	5.6%	-1.1%	+0.4%

- Following a sharp decline in overall arts attendance that occurred from 2002-2008, participation rates held steady from 2008-2012.
- Changes in the U.S. demographic composition appear to have contributed to the overall declines in performing arts attendance. Still, various subgroups of Americans have maintained or increased attendance rates for individual art forms.

**Table AC – Percentage of U.S. Adults Attending Visual Arts Activities**

				Rate of Change	
	2002	2008	2012	2002-2008	2008-2012
Art Museums/Galleries	26.5%	22.7%	21.0%	-3.8%	-1.7%
Parks/Historical Buildings	33.4%	24.5%	22.4%	-8.9%	-2.1%
Craft/Visual Arts Festivals	31.6%	24.9%	23.9%	-6.7%	-1.0%

**Table AD – Percentage of Adults Attending Live Music Performance by Genre in the Past 12-Months**

Genre	Percentage
Jazz	15.9%
Latin	9.1%
Classical	18.2%
Opera	4.8%
Hymns	14.2%
Country	20.2%
Rap	8.7%
Blues	13.1%
Folk	9.8%
Pop/Rock	43.6%

- Visual arts attendance has declined significantly since 2002.
- These 10-year declines were experienced by all demographic subgroups, with one exception; the nation's oldest Americans (75+) were more likely to attend visual arts activities than a decade ago.

*Arts Consumption Through Electronic Media*

**Table AE – Percentage of Adults Who Watched or Listened to an Arts Broadcast or Recording At least Once the Past 12-Months via TV/Radio or Internet**

	TV or Radio	Internet	Both
Jazz	9.6%	5.2%	11.8%
Latin, Spanish, or Salsa	10.5%	5.4%	12.6%
Classical	11.7%	5.8%	13.6%
Opera	3.6%	1.5%	4.3%
Other Music <sup>6</sup>	40.1%	24.9%	46.9%
Theater Productions (musical or stage play)	6.2%	2.1%	7.1%
Ballet, Modern, or Contemporary	3.9%	1.3%	4.5%
Other Dance Programs or Shows	8.3%	2.2%	9.2%
Program Info. About Visual Arts	7.6%	4.1%	9.4%
Program Info. About Book Writers	7.5%	5.3%	10.0%
Other Books, Stories, or Poetry Read Aloud	3.8%	4.6%	7.1%

**Table AF – Percentage of U.S. Adults Who Used Mobile or Handheld Devices to Explore the Arts: 2012**

	Percentage
US Adult Population Used Mobile/Handheld Device for Any Reason	53.2%
Read, Listen, Download any Novel, Short Story, Poetry or Plays	16.0%
Watch, Listen, or Download Any Music	3.4%
Download or View Any Visual Arts	7.9%

- Americans were more likely to watch or listen to broadcast arts performances using traditional sources such as TV and radio than the Internet.
- Nearly half of all American adults watched or listened to a broadcast or recorded performance of rock, pop, country, folk, rap or hip-hop music in 2012.
- Over two-thirds of people watching dance performances via median in 2012 were women. Nearly three-quarters of the adult audience was 25-64.

<sup>6</sup> Rock, pop, country, folk, rap or hip-hop

*Creating, Performing and Sharing Art*

**Table AG – Percentage of American Adults Engaging in the Performing Arts: 2012**

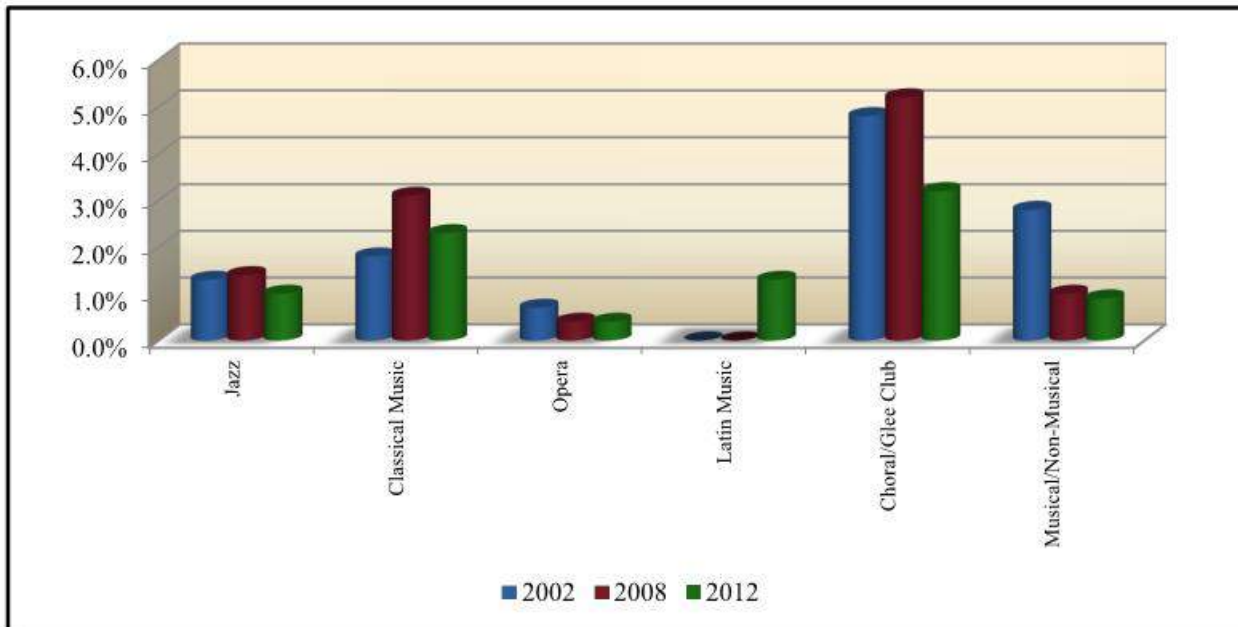
	<b>Percentage</b>
Play a Musical Instrument	12.1%
Play a Musical Instrument (with others)	5.1%
Do Any Acting	1.4%
Do Any Social Dancing	31.6%
Do Any Formal Dancing	5.1%
Perform or Practice Singing	8.7%
Do Any Singing w/ Other People	6.8%

- Social dancing is the most common way Americans performed art in 2012, followed by playing a musical instrument.
- Women are more likely than men to dance. The rates of dance participation are highest for young adults (18-34) and increase with educational level and family income.

**Table AH – Percentage of Adults Who Practiced or Performed Music of Various Types**

Practiced or Performed				Rate of Change	
	2002	2008	2012	2002-2008	2008-2012
Jazz	1.3%	1.4%	1.0%	+0.1%	-0.4%
Classical Music	1.8%	3.1%	2.3%	+1.3%	-0.8%
Opera	0.7%	0.4%	0.4%	-0.3%	+0.0%
Latin Music	N/A	N/A	1.3%	N/A	N/A
Choral or Glee Club	4.8%	5.2%	3.2%	+0.4%	-2.0%
Musical or Non-Musical	2.8%	1.0%	0.9%	-1.8%	-0.1%

**Chart N – Percentage of U.S. Adult Population Attending Arts Performances:**



- The percentage of American adults who performed or practiced jazz, classical music, or opera has not changed much since 2002.
- The percentage of people in a choral or glee club or who performed in a musical or non-musical stage play has declined since 2002.

**Table AI – Percentage of Adults Creating or Performing Arts During the Last 12 Months**

	<b>Percentage</b>
Music	5.0%
Dance	1.3%
Films/Videos	2.8%
Photos	12.4%
Visual Arts	5.7%
Scrapbooks	6.5%
Creative Writing	5.9%

**Table AJ – Percentage of U.S. Adults Using Electronic Media to Create or Perform Art in the Past 12 Months by Art Form**

	<b>Percentage</b>
Recorded, Edited, or Remixed Music	4.4%
Recorded, Edited or Remixed Dance	0.9%
Recorded, Edited or Remixed Films Videos	2.2%
Edited Photos	13.0%

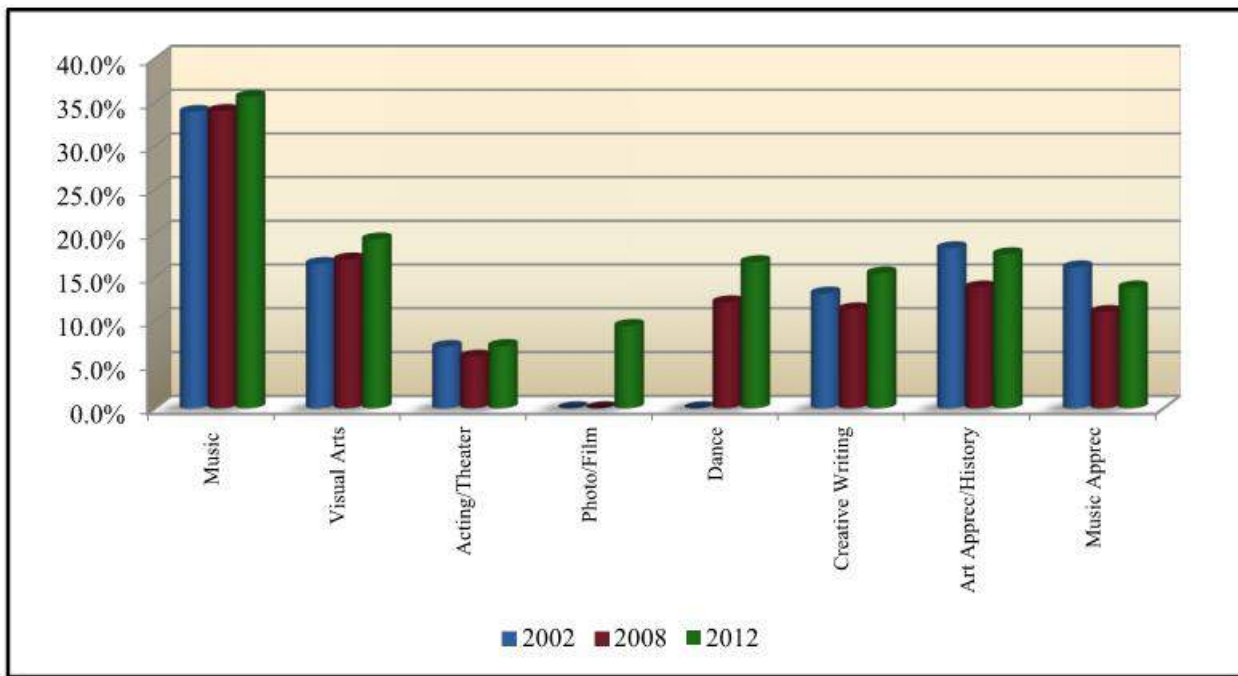
- 19% of American adults in 2012 used electronic media to share art that they themselves had created, edited or remixed.
- Men are more likely than women to use electronic media to create, perform, or share yet. This pattern stands in contrast to most forms of arts participation, in which women typically lead men.
- Large proportions of adults who create music or visual art do so through electronic media.
- 12% of Americans take photographs for artistic purposes, making photography the most common form of arts creation.

*Participation in Arts Learning Activities*

**Table AK – Percentage of U.S. Adults Who Took Arts Lessons or Classes During their Lifetime by Form of Art Studied**

				Rate of Change	
	2002	2008	2012	2002-2008	2008-2012
Music	33.9%	34.0%	35.6%	+0.1%	+1.6%
Visual Arts	16.5%	17.0%	19.3%	+0.5%	+2.3%
Acting or Theater	7.0%	5.9%	7.1%	-1.1%	+1.2%
Photography or Film	N/A	N/A	9.4%	N/A	N/A
Dance	N/A	12.1%	16.7%	N/A	+4.6%
Creative Writing	13.1%	11.3%	15.4%	-1.8%	+4.1%
Art Apprec. or History	18.3%	13.8%	17.6%	-4.5%	+3.8%
Music Appreciation	16.1%	11.0%	13.8%	-5.1%	+2.8%

**Chart O – Percentage of U.S. Adult Population Attending Arts Performances:**

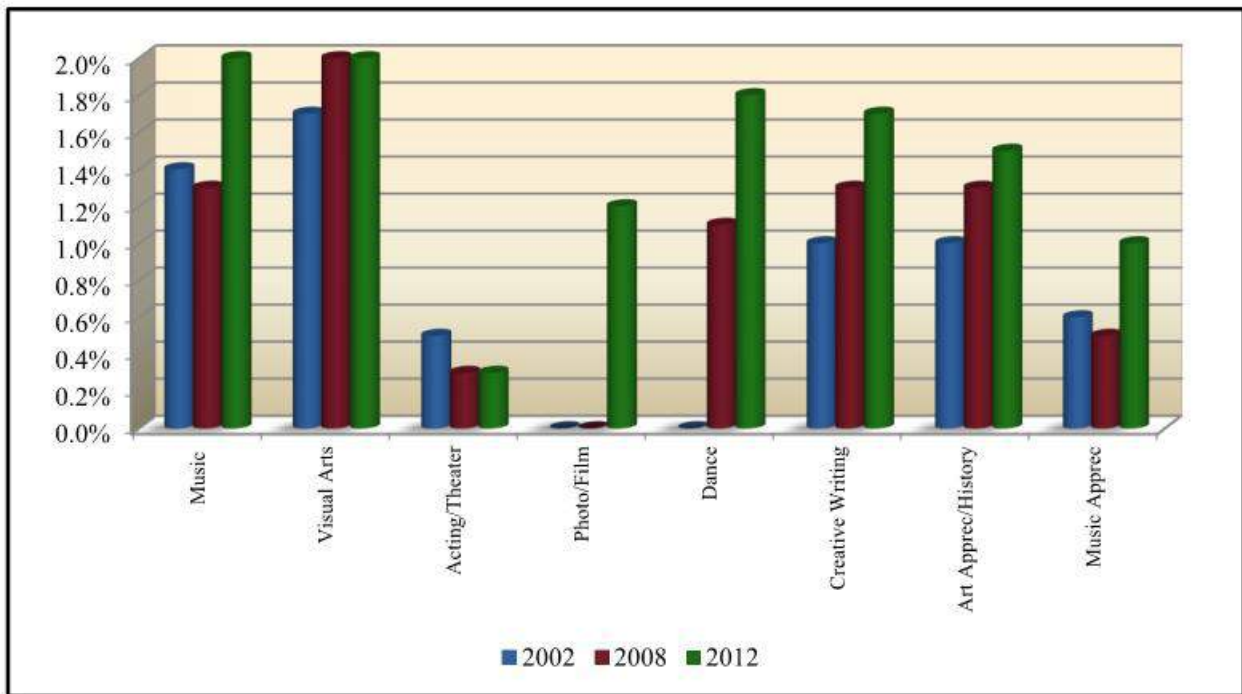


- Music is the art form most commonly studied, whether through voice-training or learning to play an instrument.

**Table AL – Percentage of U.S. Adults Who Took Arts Lessons or Classes During the Past 12-Months**

				Rate of Change	
	2002	2008	2012	2002-2008	2008-2012
Music	1.4%	1.3%	2.0%	-0.1%	+0.7%
Visual Arts	1.7%	2.0%	2.0%	+0.3%	+0.0%
Acting or Theater	0.5%	0.3%	0.3%	-0.2%	+0.0%
Photography or Film	N/A	N/A	1.2%	N/A	N/A
Dance	N/A	1.1%	1.8%	N/A	+0.7%
Creative Writing	1.0%	1.3%	1.7%	+0.3%	+0.4%
Art Apprec. or History	1.0%	1.3%	1.5%	+0.3%	+0.2%
Music Appreciation	0.6%	0.5%	1.0%	-0.1%	+0.5%

**Chart P – Percentage of U.S. Adult Population Attending Arts Performances:**



- Childhood experience in the arts is significantly associated with educational level obtained in adulthood. Over 70% of college graduates said they visited an art museum or gallery as a child, compared with 42% of adults who have only a high school diploma.

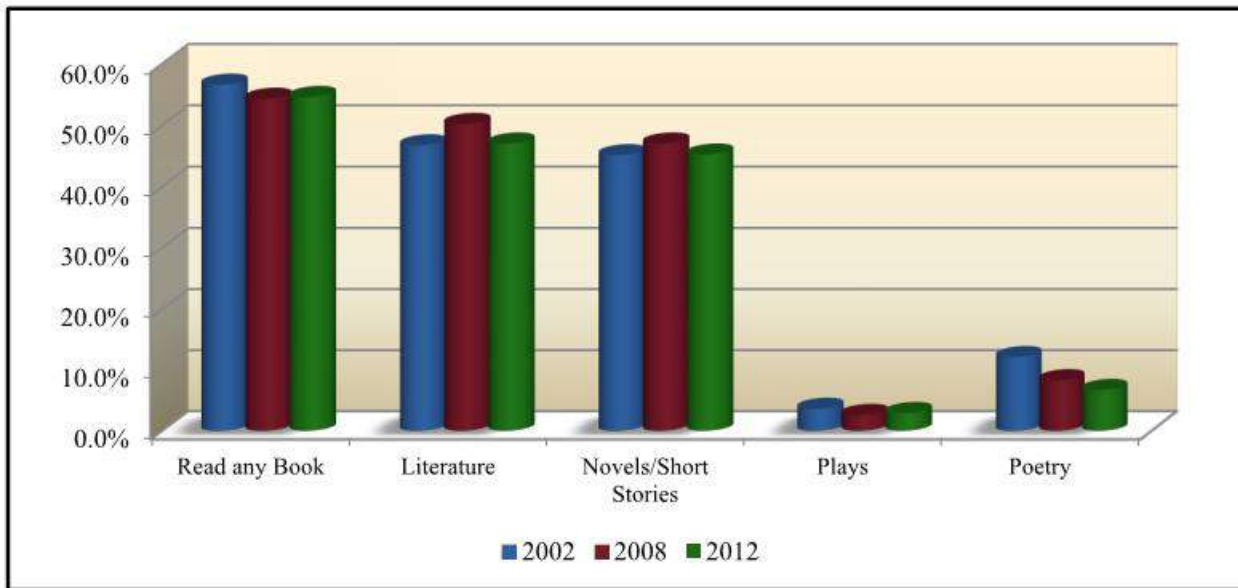


*Reading and Film Attendance*

**Table AM – Reading Activity**

				Rate of Change	
	2002	2008	2012	2002-2008	2008-2012
Read any Book, non-required	56.6%	54.3%	54.6%	-2.3%	+0.3%
Literature	46.7%	50.2%	47.0%	+3.5%	-3.2%
Novels or Short Stories	45.1%	47.0%	45.2%	+1.9%	-1.8%
Plays	3.6%	2.6%	2.9%	-1.0%	+0.3%
Poetry	12.1%	8.3%	6.7%	-3.3%	-1.6%

**Chart Q – Reading Activity**

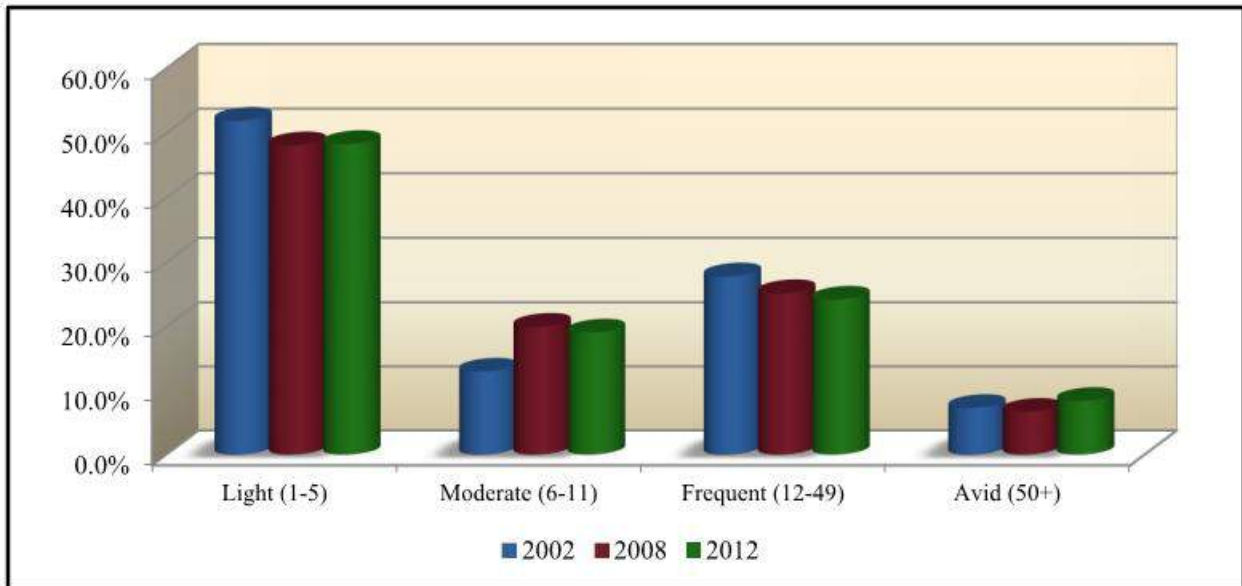


- Women are far more likely to read books and other literature than are men.
- Men are more likely to read nonfiction than fiction, while the opposite is true for women.
- Reading of books and literature has increased among older adults in the past decade.

**Table AN – Percentage of U.S. Adults who Read During the Past 12 Months by Frequency (number of books read):**

	2002	2008	2012	Rate of Change	
				2002-2008	2008-2012
All Adults					
Light (1-5)	29.4%	26.1%	23.4%	-3.3%	-2.7%
Moderate (6-11)	7.4%	10.9%	10.4%	+3.5%	-0.5%
Frequent (12-49)	15.7%	13.7%	13.2%	-2.0%	-0.5%
Avid (50+)	4.1%	4.6%	4.6%	+0.5%	+0.0%
All Book Readers					
Light (1-5)	51.9%	48.1%	48.3%	-3.8%	+0.2%
Moderate (6-11)	13.0%	20.0%	19.1%	+7.0%	-0.9%
Frequent (12-49)	27.8%	25.2%	24.2%	-2.6%	-1.0%
Avid (50+)	7.3%	6.7%	8.4%	-0.6%	+1.7%

**Chart R – All Book Readers Rate of Consumption**



- Over half of American adults read at least one book in 2012. This is unchanged from 2008, but in 2002 slightly more adults read books.
- About 4% of adults belonged to a book club or reading group in 2012.

**Recreation Activity and Facility Trends:** There continues to be very strong growth in the number of people participating in recreation and leisure activities. The Physical Activity Council in its 2016 study indicated that 42% of Americans (age 6 and older) participated at least once a week in a high calorie burning activity. However, the study also indicated that 27% of Americans were inactive. IHRSA reported that membership in U.S. health clubs has increased by 26.3% from 2009 to 2016, and memberships in health clubs reached an all-time high of 57.3 million in 2016. Statistics also indicate that approximately 1 out of every 5 people of the U.S. population (or 20%) belong to a health club. On the other side, most public recreation centers attract between 20% and 30% of a market area (more than once) during the course of a year. All of this indicates the relative strength of a market for a community recreation facility. However, despite these increases the American population as a whole continues to lead a rather sedentary life with an average of 25% of people across the country reporting that they engage in no physical activity (according to The Center for Disease Control).

One of the areas of greatest participant growth over the last 10 years is in fitness related activities such as exercise with equipment, aerobic exercise and group cycling. This is also the most volatile area of growth with specific interest areas soaring in popularity for a couple of years only to be replaced by a new activity for the coming years. Also showing particularly strong growth numbers are running/jogging while swimming participation remains consistently high despite recent drops in overall numbers. It is significant that many of the activities that can take place in an indoor recreation setting are ranked in the top fifteen in overall participation by the National Sporting Goods Association.

Due to the increasing recreational demands there has been a shortage in most communities of the following spaces:

- Gymsnasiums
- Pools (especially leisure pools)
- Weight/cardiovascular equipment areas
- Indoor running/walking tracks
- Meeting/multipurpose (general program) space
- Senior's program space
- Pre-school and youth space
- Teen use areas
- Fieldhouses

As a result, many communities have attempted to include these amenities in public community recreation facilities. With the growth in youth sports and the high demand for school gyms, most communities are experiencing an acute lack of gymnasium space. Weight/cardiovascular space is also in high demand and provides a facility with the potential to generate significant revenues.

The success of most recreation agencies is dependent on meeting the recreational needs of a variety of individuals. The fastest growing segment of society is the senior population and meeting the needs of this group is especially important now and will only grow more so in the coming years. Indoor walking tracks, exercise areas, warm water pools and classroom spaces are important to

this age group. Marketing to the younger more active senior (usually age 55-70) is paramount, as this age group has the free time available to participate in leisure activities, the desire to remain fit, and more importantly the disposable income to pay for such services.

Youth programming has always been a cornerstone for recreation services and will continue to be so with an increased emphasis on teen needs and providing a deterrent to juvenile crime. With a continuing increase in single parent households and two working parent families, the needs of school age children for before and after school child care continues to grow as does the need for preschool programming.

As more and more communities attempt to develop community recreation facilities the issues of competition with other providers in the market area have inevitably been raised. The loudest objections have come from the private health club market and their industry voice IHRSA. The private sector has vigorously contended that public facilities unfairly compete with them in the market and have spent considerable resources attempting to derail public projects. However, the reality is that in most markets where public community recreation centers have been built, the private sector has not been adversely affected and in fact in many cases has continued to grow. This is due in large part to the fact that public and private providers serve markedly different markets. One of the other issues of competition comes from the non-profit sector (primarily YMCA's but also JCC's, Boys & Girls Clubs, and others), where the market is much closer to that of the public providers. While not as vociferous as the private providers, the non-profits have also often expressed concern over public community recreation centers. What has resulted from this is a strong growth in the number of partnerships that have occurred between the public and non-profit sector in an attempt to bring the best recreation amenities to a community.

**Community Recreation Center Benchmarks:** Based on market research conducted by Ballard\*King & Associates at community recreation centers across the United States, the following represents the basic benchmarks.

- The majority of community recreation centers that are being built today are between 65,000 and 75,000 square feet. Most centers include three primary components A) A pool area usually with competitive and leisure amenities, B) Multipurpose gymnasium space, and C) Weight/cardiovascular equipment area. In addition, most centers also have group exercise rooms, drop-in childcare, and classroom and/or community spaces.
- For most centers to have an opportunity to cover all of their operating expenses with revenues, they must have a service population of at least 30,000 and an aggressive fee structure.
- Most centers that are between 65,000 and 75,000 square feet have an operating budget of between \$2,000,000 and \$2,500,000 annually. Nearly 65% of the operating costs are from personnel services, followed by approximately 25% for contractual services, 8% for commodities, and 2% for capital replacement.
- For centers that serve a more urban population and have a market driven fee structure, they should be able to recover 70% to 100% of operating expenses. For centers in more rural areas

the recovery rate is generally 50% to 75%. Facilities that can consistently cover all of their operating expenses with revenues are rare. The first true benchmark year of operation does not occur until the third full year of operation.

- The majority of centers of the size noted (and in an urban environment) above average daily paid attendance of 800 to as much as 1,000 per day. These centers will also typically sell between 1,000 and 2,000 annual passes (depending on the fee structure and marketing program).
- It is common for most centers to have a three-tiered fee structure that offers daily, extended visit (usually punch cards) passes, and annual passes. In urban areas it is common to have resident and non-resident fees. Non-resident rates can cost 25% to 50% higher than the resident rate and are usually a topic of discussion amongst elected officials. Daily rates for residents average between \$3.00 and \$6.00 for adults, \$3.00 and \$4.00 for youth and the same for seniors. Annual rates for residents average between \$200 and \$300 for adults, and \$100 and \$200 for youth and seniors. Family annual passes tend to be heavily discounted and run between \$350 and \$800.
- Most centers are open an average of 105 hours a week, with weekday hours being 5:00 am to 10:00 pm, Saturdays 8:00 am to 8:00 pm and Sundays from noon to 8:00 pm. There is now a trend to open earlier on Sundays as well. Often hours are shorter during the summer months.

Note: These statistics vary by regions of the country.

**Recreation Facilities Market Orientation:** Based on the demographic makeup of the service areas and the trends in indoor recreation amenities, there are specific market areas that need to be addressed with such community facilities. These include:

**General:**

**1. Drop-in recreation activities** - Critical to the basic operation of any community recreation center is the availability of the facility for drop-in use by the general public. This requires components that support drop-in use and the careful scheduling of programs and activities to ensure that they do not dominate the center and exclude the drop-in user. The sale of annual passes and daily admissions, potential strong revenue sources for a center, requires a priority for drop-in use.

**2. Instructional programming** - The other major component of a community center's operation is a full slate of programs in a variety of disciplines. The center should provide instruction for a broad based group of users in a number of program areas. The primary emphasis should be on teaching basic skills with a secondary concern for specialized or advanced instruction.

**3. Special events** - There should be a market for special events including kid's birthday parties, community organization functions, sports tournaments and other special activities. The development of this market will aid significantly in the generation of additional revenues and these events can often be planned for before or after regular operating hours or during slow use times of

the year. Care should be taken to ensure that special events do not adversely impact the everyday operations of the center.

**4. Community rentals** - Another aspect of a center's operation is providing space for rentals by civic groups or organizations as well as the general public. Gyms and multi-purpose rooms can be used as a large community gathering space and can host a variety of events from seminars, parties, receptions, arts and crafts sales and other events. It is important that a well-defined rental fee package is developed and the fee schedule followed closely. Rentals should not be done at the expense of drop-in use or programming in the center.

**5. Social welfare programs** – An emerging area for many centers is the use of space for social service activities and programs. Special population activities, teen and senior assistance programs, childcare and other similar uses are now common in many facilities.

**Specific market segments include:**

**1. Families** - Within most markets an orientation towards family activities is essential. The ability to have family members of different ages participate in a variety of activities together or individually, is the challenge.

**2. Pre-school children** - The needs of pre-school age children need to be met with a variety of activities and programs designed for their use. From drop-in childcare to specialized pre-school classes, a number of such programs can be developed. Interactive programming involving parents and toddlers can also be beneficial. It is significant that this market usually is active during the mid-morning time frame, providing an important clientele to the facility during an otherwise slow period of the day. For parents with small children who wish to participate in their own activities, babysitting services are often necessary during the morning and early evening time slots.

**3. School age youth** - Recreation programming has tended to concentrate on this market segment and this age group should be emphasized at a center as well. This group requires a wide variety of programs and activities that are available after school, during the summer, or during weekend hours. Instructional programs and competitive sports programs are especially popular, as well as drop-in use of the facility.

**4. Teens** - A major focus of many community recreation center projects is on meeting the needs of teenagers in the community. There is a great debate among recreation providers throughout the country on how to best provide recreation programming for this age group. Some believe that dedicated teen space is required to meet their needs while others find that it is the activities and approach that is more important. Serving the needs of this age group will often require the use of many areas of the center at certain "teen" times of use.

**5. Seniors** - As the population of the United States and the service areas continue to age, continuing to meet the needs of an older senior population will be essential. As has been noted, a more active and physically oriented senior is now demanding services to ensure their continued health. Social programs as well as weight training and cardiovascular conditioning have proven to be popular

with this age group. Again, the fact that this market segment will usually utilize a facility during the slower use times of early to mid-day also is appealing. Providing services for this age group should be more of a function of time than space.

**6. Business/corporate** - This market has a variety of needs from fitness/wellness and instruction, to recreation and social. The more amenities and services that can be offered at one location the more appeal there is to this market segment. The business community should be surveyed to determine their specific needs and expectations.

**7. Special needs population** - This is a secondary market, but with the A.D.A. requirements and the existence of a number of recreation components, the amenities will be present to develop programs for this population segment. Association with health care providers and/or other social service agencies will be necessary to fully reach this market.

**8. Special interest groups** - This is a market that needs to be explored to determine the use potential from a variety of groups. These could include school functions, social service organizations and adult and youth sports teams. While the needs of these groups can be great, their demands on a center can often be incompatible with the overall mission of the facility. Care must be taken to ensure that special interest groups are not allowed to dictate use patterns for the center.

### **Market Review**

In addition to the demographic characteristics, recreation participation, and trends analysis, one of the other greatest impacts on the market for a possible Sandy Aquatic/Recreation Center is the presence of other similar providers in the area.

Within the greater Sandy market area there are currently a number of indoor sports, recreation and fitness facilities to serve the population base.

### **Public**

There are several indoor public recreation facilities in the Sandy area. The majority of these are aquatic centers.

*Olin Bignall Aquatic Center* – This is an old indoor pool that is L shaped with 6 lanes by 25 yards in one direction and 6 lanes by 25 meters in the other. There is a deep end in the yard configuration that has an old 1-meter diving board and a small deck slide that are both no longer used. The meter direction has a shallow end where much of the lesson and aqua exercise programs are conducted. There is also a very small wading pool. The locker rooms are institutional and do not meet community needs or expectations. The operation of the pool has recently been taken over by the City of Sandy.

*Sandy Community/Senior Center* – This is a relatively small, older building, that serves as a senior center and also as a community center. The bottom level has a front desk, staff offices, a dining

room with a kitchen and game room. Upstairs there is an auditorium (a large multi-purpose room that can seat up to 250), small arts room and a conference room. This is the largest public congregate space in the city. There is limited parking available on-site.

*Sandy Library* – The library has a small community space that is utilized for recreation programs and activities that focus on youth and teens. There is a need for a larger space to support these activities.

*Mt. Hood Community College* – Located in Gresham, the college has an indoor/outdoor 50-meter pool, and indoor 25-yard pool and a therapy pool. The campus also has a fitness center that is open to students.

*Barlow High School* – The school in Gresham has an indoor 25-yard pool that is open to the public for lessons and recreational swimming.

Olin Bignall Aquatics Center



Sandy Community/Senior Center



### **Private**

Within Sandy itself, there are a number of private fitness clubs and several smaller boutique type providers.

*Mt. Hood Athletic Club* – This is a full-service athletic club located in Sandy. It features a large weight/cardio area, gymnasium, indoor pool as well as an outdoor pool, and racquetball courts.

*Thrive Fitness* – Located in downtown Sandy, this new fitness center features 24-hour access.

*9 Round* – This Sandy fitness center is based around kick-boxing.

*Believe Fitness* – This is a smaller fitness studio located Sandy.

*Crossfit Sandy* – This is small cross-fit gym in Sandy.

*Curves* – This is a women’s focused specialty fitness center.



*Celtic Spirit Yoga* – This a small yoga studio located in Sandy.

*Wippersnappers Kids Play Place* – This is a youth focused recreation and entertainment center that features indoor play and climbing structures as well as a trampoline room.

Mt. Hood Athletic Club



In addition, there are many other private facilities that are located further to the west in Gresham but well outside the market area. There is also a small center to the south in Estacada.

*Cascade Athletic Club* – This is a relatively large, fitness only facility, in east Gresham. This is the closest of the Gresham facilities to Sandy.

*Timber Town Fitness* – This is a small 24/7 fitness and group exercise club that is located in Estacada.

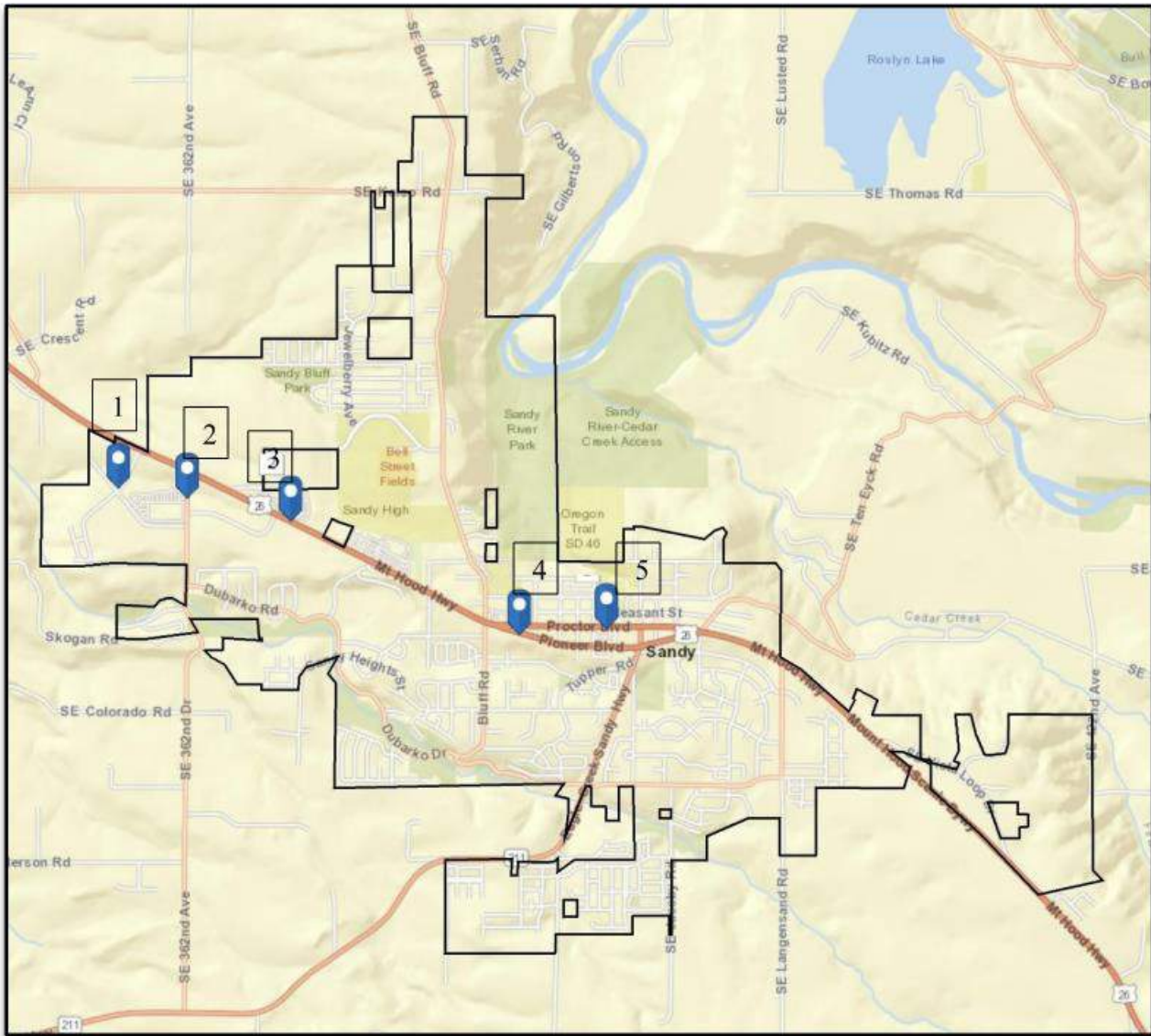
### **Non-Profit**

There are no significant non-profit providers (YMCA's etc.) in the immediate Sandy market area.

Note: This is a representative listing of the indoor aquatic, fitness and recreation facilities in the area and is not meant to be a total accounting of all facilities. There may be other centers located within the area that have an impact on the market as well.



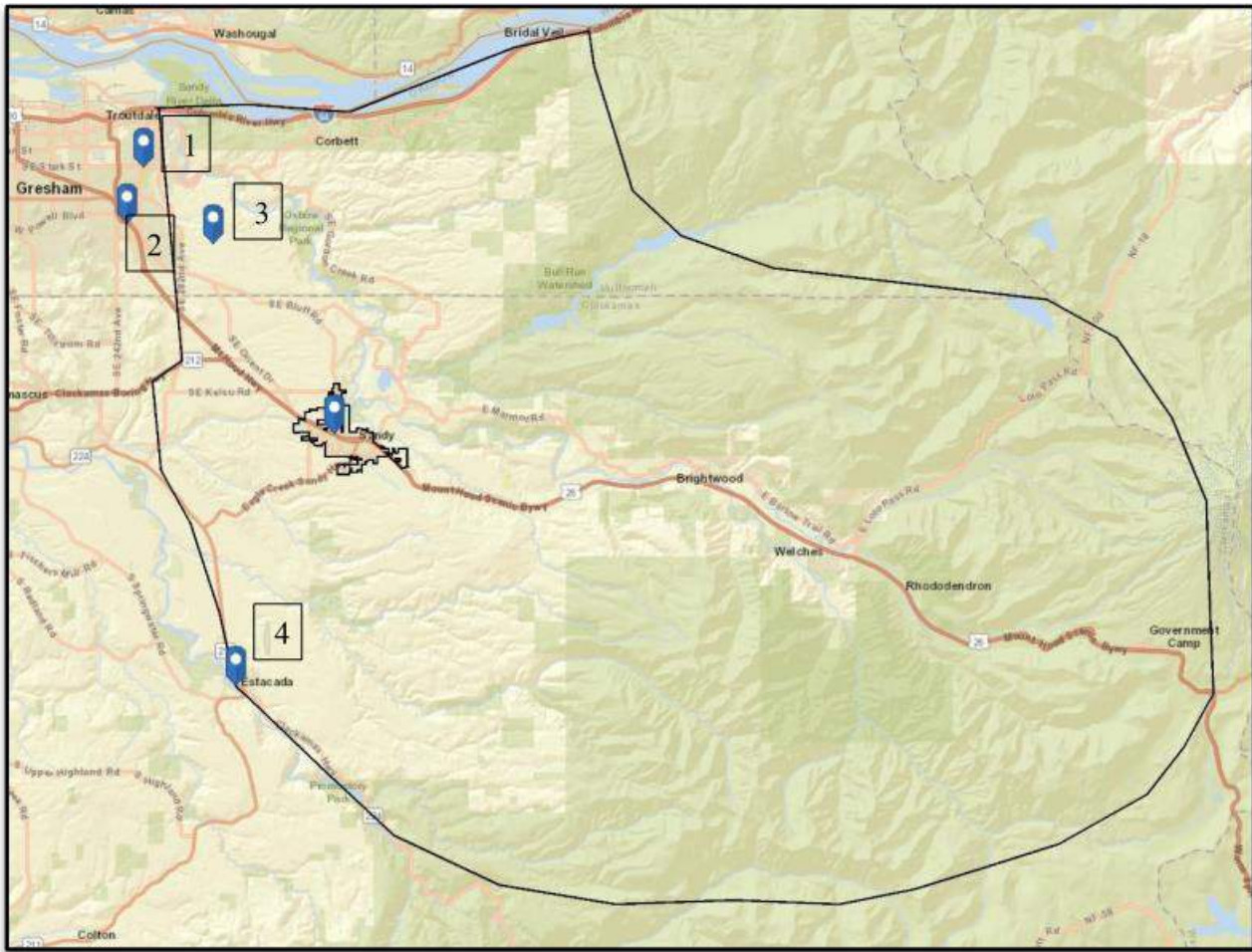
**Map F – Alternate Service Providers in Sandy**



1. 9 Round, 16621 Champion Way
2. Crossfit Sandy, 16536 SE 362<sup>nd</sup> St.  
Whippersnappers, 16542 SE 362<sup>nd</sup> St.
3. Mt Hood Athletic Club, 37095 Highway 26  
Believe Fitness Studio, 36755 Highway 26
4. Sandy Community & Senior Center, 38348 Pioneer Blvd.
5. Thrive Fitness, 17430 Meinig Ave.  
Curves, 38958 Proctor Blvd.  
Celtic Spirit Yoga, 38736 Pioneer Blvd.  
Sandy Library, 38980 Proctor Blvd.  
Olin Bignall Aquatics Center, 39055 Pleasant St.



**Map G – Alternate Service Providers in Secondary Service Area**



1. Mt. Hood Community College, 26000 SE Stark St., Gresham, OR
2. Cascade Athletic Club, 2456 E. Powell Blvd., Gresham, OR
3. Barlow High School Pool, 5105 SE 302<sup>nd</sup> Ave., Gresham, OR
4. Timber Town Fitness, 321 SW Highway 224, Estacada, OR

**Other Indoor Recreation, Aquatics and Fitness Facility Providers Conclusion:** In Sandy itself there are several aquatic and fitness providers in place and moving further west there are much more in Gresham. It is significant that there are no other, full-service public recreation centers in the market and no YMCA's or other similar providers.

While there are private health clubs in the area that provide fitness and sports amenities, these facilities serve very different market needs than a public center. As a result, their impact on the market is much less.

There are also dance studios, gymnastics clubs, and yoga/Pilates studios in the area that provide specialized programs that could be seen as limiting the market for some of these same activities at a new recreation center. There is a strong trend nationally in the development of small private boutique or specialty type fitness studios. These facilities have eroded some of the market for the larger more comprehensive private fitness centers in many communities but have had less impact on public centers. This is due to the differences in the market segments that are served by these types of facilities.

After analyzing these other existing providers, there is still a solid market for a Sandy Community Recreation Center, but it must draw well from the Secondary Service Area.

**Market Conclusion:**

Below are listed some of the market opportunities and challenges that exist with this project.

***Opportunities:***

- The Secondary Service Area, at nearly 57,000 people, is large enough to support a sizeable new public recreation center.
- Both market areas are expected to continue to grow at a strong rate.
- The demographic characteristics of both service areas indicate households with higher income levels and disposable income for recreation purposes. There are a considerable number of households with children in Sandy.
- There are no existing, comprehensive, public or non-profit recreation, sports and fitness facilities in Sandy.
- The existing Olin Bignall Aquatic Center is a significant indoor aquatic center, but it needs to be renovated.
- The existing Sandy Community/Senior Center is a small facility with limited space to serve community recreation needs.

- The existing school building, athletic fields and other outdoor spaces provide an opportunity for recreation use by the community with the proper renovations.

### ***Challenges:***

- The population of the City of Sandy is small at approximately 11,000, which will require strong use from the Secondary Service Area to have a center be financially viable.
- The strongest future growth will be in the older adult and senior age groups.
- There are a significant number of other indoor recreation and fitness centers to the west of Sandy. There are four private fitness facilities in Sandy proper and the Mt. Hood Athletic Club is a large comprehensive facility.
- The existing aquatic center and school buildings will require significant upgrades and renovations to effectively meet community needs in the future.
- Funding not only the development but the operation of a new community recreation center will have to be clearly defined.
- Finding equity partners will be essential if a full-service community recreation center is going to be developed.

**Focus Group Summary**

The following is a summary of the focus groups that were held in November 2017.

*Monday November 27, 2017*

**City Staff/Department Heads**

Who we talked to:

Recreation Staff  
Arts Commission  
Police Chief  
Library Staff  
Planning Staff

What is the vision for the project?

Need for arts, outdoor sports

Need a partnership with the library

Rental space for community groups

Full aquatic center

Community gardens

Flexible space is important

Art space, some outdoors

Black box/auditorium

Visual arts space

Maker space

Climbing wall – operated by others

Batting cages

Pool with zero depth entry

Rental space that is adjustable depending on the size of the group

Social service functions- shelter, other

Location for press conferences/council chambers

Library has needs for its teen program in the center. They do a lot of recreation programming now.

Some concerns over having fitness but there is the realization that it will probably be needed for revenue production

Need to move people off of highway 26 and on to Pleasant St. Connect the library, center and the river

Need an appeal to tourists

There should be retail space along Pleasant St.

The outdoor space is an important part of the project. Will need to be a number of adventure sports opportunities

Not sure what to do with the skate park

May sell off the old community center building if the school is developed

*Fears*

Not enough funding for capital and operations

Staffing

Not being able to meet code requirements

Parking/traffic/accessibility

May have to form a recreation district

*Priorities*

Something that generates revenue

Event/classroom space

Pool

Gym

**Families/Teens**

*Interest Areas of Attendees:*

- Aquatics
- Teen services-Library
- Fitness
- Mt. Hood Athletic Club

*Needs*

Need to make improvements to the existing pool

- Also need a warm water pool

- Exercise pool

- Space for birthday parties

- Space for kayaking and scuba

- Younger kids need, warm water, diving board, outdoor pool, splash pad, swim lessons

Teens need more space than what the library has to offer

- Maker space-high tech

- Education space

- Outdoor basketball courts

Fitness is important even though there are other options that are available in the community, need something that is affordable

Need more classroom space for programs

Need more softball/baseball fields

Senior fitness and exercise space

Need a café or other food options at the center

Place for cooking classes

Dance/group exercise space

Skate park – need to keep this but there needs to be improvements

Should serve the home school community

Other indoor spaces



Gym space  
Arts & crafts room  
Computer space  
Game area  
Climbing wall  
Gymnastics area

Outdoor spaces  
Batting cages  
Community gardens  
Covered playground  
Trails to the river  
Keep the outdoor track

Priorities

Improving the pool – focus on the recreational swimmer, warmer water, better locker rooms  
Gymnasium  
Teen space  
Outdoor areas

**County/Tourism**

Who we talked to:

Bicycle group  
Water shed  
Visitor center  
Hotel

Needs

Community center – serve 100-200 people for weddings, meetings, reunions, etc. No place for this in Sandy now.

Kitchen – catering/serve the senior needs

Aquatic Center – need to keep the existing center open during renovation, need better locker rooms, hot tub, slides and diving boards. Birthday party rooms, something like North Clackamas

Adequate parking and enhance the downtown plan and Pleasant Street plan

Support Silver Sneakers and Silver & Fit

Need public art as part of the project

Need fitness area (even with the other facilities in town)

Class space

Equipment

Outdoor

Trails – to the river -enhance Sandy Ridge

Pump tracks

Mtn. bike learning centers

Fitness stations

Pool – support kayaking, outdoor space

What will bring people here:

Conference space

Meeting rooms-weddings, reunions

Trails

Food service or a restaurant

Retail

Festival space

Field space – for adult softball tournaments maybe other types of sports as well.

Cycle-cross

Mud runs, etc.

Ice rink – would draw people to the area and the site, use as an event/sports place in the summer

Bow hunting range - indoor

This should replace the existing community center

Indoor play park – climbing wall, indoor playgrounds

The County has a tourism development fund usually \$200,000 – focus on outdoor recreation is better, trails, outdoor recreation, sports fields, mountain biking, river access

Funding – Anglers program through the state, water recreation opportunities

Need to involve youth into the design process, what would they use?

Skate park

Pump track- could start with a mobile operation

Priorities:

Events, conference centers

**Council**

*Who we talked to:*

Four council members

*Expectations*

They want an incremental plan with clear phases

Concerned about the poor condition of the pool

**Parks and Recreation**

*Who we talked to:*

Arts interests  
Business  
Park Board members  
Nature interests  
Families with small children

*Needs*

Need indoor space-could be just covered space

Need a nature park

Would like an indoor track

Space for teens with:

Wi-Fi access  
Computers  
Warm/safe place  
Place like the Ant farm

The skate park needs to be covered and have better supervision

Need an outdoor pool or an indoor with a tractable roof, there needs to be a leisure pool

There needs to be more recreational opportunities in Sandy, do not want to have to travel

Whippersnappers is very successful

Need preschool program, even outdoor preschool

The Mt. Hood Athletic Club serves some of the community's needs

There needs to be more recreational opportunities for seniors, indoors and outdoors

A dog park should be included on the site

Need some covered basketball courts

It is important to have connectivity to through town using trails

Move the senior center to the site. Will need a commercial kitchen

Offer cooking and coding classes

Need some food service options

Small expo or convention space

There needs to be an outdoor amphitheater

Something for older kids and adults, a game room

Climbing wall – lease to an existing provider

Outdoor ice rink

Pool party rooms

Not interested in funding school district needs in the pool

Should serve the arts

Parkour

Fitness area – existing providers are too expensive

Ropes course and disc golf course

Pump track – could be indoor

Outdoor playground

Need to be able to control access to the building and pool

Priorities

- Focus on residents first
- Covered outdoor space
- Zero entry pool
- Trails
- Serve younger families

***Tuesday, November 28, 2017***

**Friends of the Sandy Pool**

Needs

Aquatics

- Deep water for water polo
- Therapy pool
- Warm water pool
- Lap pool is important

Fix up what is there only if it will last 25 years or more

Need to minimize the operational costs

Need handicapped parking- needs to be close to the front door

The locker rooms are poor and need to be upgraded

They like the lay-out of the pool now and want to keep it.

The pool needs to continue to support swim teams and lap swimming

Want the capability of continuing to support both 25 yard and 25 meter meets

They do not want a removeable roof or an “open” pool

Need to look into the use of solar and geothermal options

The City should move the Community/Senior Center to the new center

The existing slide and diving board needs to be eliminated

Would like to see part of the old school building utilized as a community museum

It will be difficult to make retail work on the site, it is off of highway 26

Need to bring swimming lessons and water safety instruction back to the schools

Want an outdoor leisure pool or splash pad to go with the indoor pool

The City should partner with a local health care provider for some services

Priorities

Move the Community/Senior Center to the building

Make basic improvements in the first few years while others want the pool replaced in phase 1.

Seniors

Who we talked to:

Golden Age Club members  
Sandy Senior Center staff

Needs

There needs to be a larger area for the senior lunch program

Need a senior exercise space, the athletic club is dropping its Silver & Fit program

Need a game area

Accessibility to the building is very important. A covered entry area is important and there needs to be more handicapped parking

What is currently available is inadequate

Could the recreation uses be moved to the new building and the existing structure used for only a senior center?

Need more meeting and classroom space

There will need to be a full commercial kitchen

The dining area will need to seat 100 to 120

Being able to use the outdoor track will be important, an indoor track would be great

The senior space should all be on one level and separate from other spaces

Need to appeal to the younger senior

A community room for meetings and events will be important

Also need:

- Music area for 15 musicians
- Place for card games-10-15 players
- Central lounge area
- Library space
- Gym space
- Office space that is large enough for 2-3 people to meet
- Senior/community garden space
- Larger restrooms and a unisex changing room

Priorities

Renovating the indoor pool

**SA Chamber**

Who we talked to:

Mt. Hood Athletic Club  
Ant Farm  
Wippersnappers  
Chamber of Commerce

Needs

Community event space – serve at least 100-200 plus other space-have to go to the mountain or Gresham now. Small conference rooms. All rooms need good technology

Aquatics- need a recreational pool, birthday parties, need to generate income, splash pad

Athletic Club will do swim lessons. Should start with a new pool

Need to serve youth and seniors

Need a place for youth and teens- space for the library program, computers, arts/crafts room, games

The center will be the glue for the community

Trail access, mountain biking trails

Use the fields for festivals, amphitheater

Skate park is important – it needs to be upgraded, cover it with roll up doors, no one in charge or maintained.

Parking is a concern

Location for job fair

Move the Senior/Community Center to the new center

Add a McMenamins

Concern from Mt. Hood Athletic Center if fitness is added

*First Phase*

Something that makes money

Pool

Trails

Move the senior/community center to this building

**OTSD & Pool**

*Who we talked to:*

Water Polo

Swim Coach

Oregon Trail School District

Maverick Aquatic

Pool Manager

Mt. Hood Aquatic Center Program Manager

Athletic Director of High school

*Needs:*

Trails down to the river



Fitness center – alternative to the Athletic Club

Aquatic Center – swim teams, water polo, swim lessons

Pool needs to be deeper for water polo, 7 ft. depth

Spectator space – 500 total

Shallow pool, separate pool for swim lessons, warmer pool

Zero depth entry to 3.5 to 4 ft.

Does not have to be a new pool but do need warmer water

Really should just replace the pool, make it better, more versatile, multiple tanks, recreational pool

Need family changing areas

Need bigger/better office space, more storage space

Separate locker rooms for staff

Bus transportation from the schools is important

Need to talk to the YMCA and the Boys & Girls Club about partnering

Recreation swimming has declined at the pool, not appealing. Need slides, diving board.

Need an outdoor pool or make it feel like an outdoor pool. Bubble an outdoor pool

Mt. Hood CC rents out their pool for a lot of events in the summer.

Other amenities:

Fitness

Birthday party room/lifeguard training room

Racquetball court

Gym – could be an outdoor covered area

Climbing wall

Mat room – for martial arts

Cover the skate park, parkour

Batting cages

Priorities

Pool

**Coaches/Fields**

*Who we talked to:*

Middle school athletic director  
Snowboard coach-action sports  
H.S. coach – basketball/Mountain Storm  
Youth development  
Sports parents  
Rock climbing/white water  
Football coach  
Baseball coach

*Needs:*

Better pool, more recreationally focused – could be outdoor, could be a splash pad

Existing pool is important as well

Boys & Girls Club setting

Birthday party rooms

Rock gym- none close in the area

Game room

Gym-a minimum of two courts – not near enough gym space in the community. Outdoor covered space is not adequate

After school space

A proper community center

Sand volleyball courts

Zip lanes, ropes course, challenge courses

Sports fields – all turf

Community rooms/classroom space for events – need to be able to accommodate 200-300

Action sports – climbing, biking, snowboarding, skateboard park. Playground that is action sports oriented, skateboard learning center. Pump track -for strider bikes Need camp programs for youth

Fitness -outdoor fitness stations

Skateboard park – existing park is not great, it needs to be improved or replaced

Football – needs place for practices would like turf. School fields are too expensive school will not let user groups make improvements to fields.

Need better access to the fields than what it is now. Need multi-purpose fields with back stops in corners. Do want to see the field used for festivals and other events.

Do not need the formal track only a perimeter walk/jog track.

What about using a temporary structure. Sprung structure

Priorities

Serve the youth, music, after school, safe place

Place for Mtn. Storm - use the gym for sports

Place for seniors – relocate the senior/community center

Does not want to see all the money go to the pool/others want to see the pool improved first



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**Preliminary Center Program**

Before embarking on Phase I of the Sandy Aquatic/Community Center, it will be critical that there is an overall, long-range, vision for what this facility will ultimately be. This includes an overall site plan and the possible reuse of the existing pool and school buildings. This will need to account for the required parking to support the indoor and outdoor activities.

**Phase I – Aquatic Center**

The first phase of the aquatic/community center should focus on making improvements to the existing aquatic center. This will keep this key recreation amenity operational in the community.

Goals:

- Improve the existing building envelope
- Renovate/replace the existing pool mechanical system
- Make repairs improvements to the pool deck and tank
  - Keep the existing pool tank configuration
  - Remove the existing diving board and deck slide
  - Remove the wading pool
  - Improve and expand the spectator seating area
- Make improvements to the existing locker rooms, office and entry area (if Phase II will not occur within 2-3 years)
  - Replace existing restroom fixtures and showers (replace with individual showers)
  - Add actual lockers to the space
  - Renovate the front desk and office area (only if this will not be replaced with central building and office area in Phase II).
  - Replace the building façade and improve the entry area.

**Phase IB – Expansion of the Aquatic Center**

This phase could either be included as part of Phase I if there is adequate funding available or it may need to be moved to Phase II.

- Add new spaces
  - Warm water leisure pool (3,000 SF water surface area, 6,000 total space)
  - Universal change rooms (4-6, 120 SF each)
  - Two party rooms (400 SF each)

# Preliminary Center Program

## Sandy Aquatic Community Center



### Phase IB – Expansion of the Aquatic Center - New Spaces Only

Space	Number of Spaces	Square Footage	Total SF
<b>Support</b>			
Universal Change Rooms	6	120	720
<b>Aquatics</b>			
Leisure Pool (3,000 SF water surface area)	1	6,000	6,000
Party Rooms	2	400	800
<b>Sub-Total</b>			<b>7,520</b>
Net to Gross (25%)			1,880
<b>Final Total</b>			<b>9,400</b>

### Phase II – Active Indoor Recreation Space

This phase of the aquatic/community center will focus on utilizing the existing gym and other attached spaces for active recreation purposes. This use is predicated on the old school building being structurally sound and any life-safety issues being taken care of. It is anticipated that only a portion of the school building will be utilized for this purpose. Active recreation space is also being recommended for the second phase due to the revenue that can be generated from these elements to help off-set the cost of operation.

#### Goals:

- Attach the gym area of the school to the aquatic center to have one central entrance to the aquatic/community center.
- Renovate the existing gym. If this is not possible, build a new gym.
- Develop a weight/cardio equipment area (approximately 3,000 SF).
- Establish a group exercise room and a possible second group exercise studio. (group exercise room, 2,000 SF, studio 1,000 SF).
- Develop a center office area and locker area to support both the pool and the active areas of the building. (office area 1,500 SF, locker rooms- 1,500 SF each plus 6 universal changing rooms at 120 SF each).
- Add potential new spaces
  - Indoor track (based on gym size and other area adjacencies)
  - Drop-in child watch room
- RFP for possible equity partners to develop and operate action sports amenities (either indoor or outdoor). Indoor spaces could include:

# Preliminary Center Program

## Sandy Aquatic Community Center



- Parkour
- Climbing gym
- Winter sports training center
  
- Explore the possibility of developing a portion of the property along Pleasant Street for retail purposes. It would be the goal to utilize the revenue from this development to pay for capital improvements and/or operations of the Sandy Aquatic/Community Center. This is likely to require a partnership with a developer.

The portions of the building that are not anticipated to be used for active recreation purposes or for Phase III amenities (see below), could be used for other City uses or community purposes. Strong consideration should be given to tearing down at least a portion of the school building that cannot be readily utilized for these other purposes.

### Phase II – Active Indoor Recreation Space-New Spaces Only

Space	Number of Spaces	Square Footage	Total SF
<b>Support</b>			
Lobby	1	1,000	1,000
Office Space (Admin, conf. room, work space)	1	1,500	1,500
Drop-in Child Watch (includes unisex restroom)	1	1,000	1,000
Conventional Locker Rooms	2	1,500	3,000
Universal Change Rooms	6	120	720
<b>Active Use</b>			<b>0</b>
Weight/Cardio Area	1	3,000	3,000
Group Exercise Room	1	2,000	2,000
Group Exercise Studio	1	1,000	1,000
Gymnasium (high school court/2 cross-courts)	1	8,400	8,400
Walk/Jog Track	1	5,000	5,000
<b>Sub-Total</b>			<b>26,620</b>
Net to Gross (25%)			6,655
<b>Final Total</b>			<b>33,275</b>

### Phase III – Community and Outdoor Spaces

This phase of the project would see the inclusion of indoor community spaces as well as the development of outdoor sports fields, outdoor trails, and other recreation amenities.

Goals:

- Develop a community focused multi-purpose room (3,000 SF) that is divisible into 2-3 smaller rooms. The room(s) would be used for a variety of general recreation programs, senior programs, community events and rentals. This space would have a commercial

# Preliminary Center Program

*Sandy Aquatic Community Center*



kitchen (1,000 SF) attached to support the senior meal program. This space should also have the capability of being used for City Council meetings and/or municipal court. There should also be an outdoor deck area that overlooks the current athletic fields.

- Utilize 3-4 of the existing classrooms for the following uses:
  - Preschool rooms (2 rooms, 900 SF each) – with adjacent restrooms (300 SF)
  - Arts & crafts room (1,200 SF)
  - Teen room with “maker” space (1,200 SF)
  
- Redevelop the outdoor spaces on the school property:
  - Priorities (in rank order)
    - Remove the formal track and replace with a site perimeter hard surface walk/jog track.
    - Develop a significant playground.
    - Establish a festival area.
    - Establish formal athletic fields with an emphasis on rectangular field sports.
    - Renovate the existing skate park, this may require relocation on the property
    - Develop a trail system that ultimately leads to the river
    - Designate a space for community gardens
    - Develop a formal amphitheater
  
- Establish a series of outdoor “action sports” amenities through partnerships with organizations that have a focus on these types of programs. This could include:
  - Pump track
  - Ropes course
  - Zip line
  - Mtn. bike learning center

With the development of the indoor spaces noted above, it is anticipated that the existing Community/Senior Center would close, and the existing building and property sold to help fund the capital improvements in the Aquatic/Community Center.

# Preliminary Center Program

## *Sandy Aquatic Community Center*



### Phase III – Community and Outdoor Spaces-New Indoor Spaces Only

Space	Number of Spaces	Square Footage	Total SF
<b>Support</b>			
Restrooms	2	400	800
<b>Activity Space</b>			
Community Room (divisible into 3 sections)	1	3,000	3,000
Kitchen- Commercial	1	1,000	1,000
Preschool Rooms	2	900	1,800
Preschool Restrooms	2	150	300
Arts & Crafts Room	1	1,200	1,200
Teen Room with Maker Space	1	1,200	1,200
<b>Sub-Total</b>			<b>9,300</b>
Net to Gross (25%)			2,325
<b>Final Total</b>			<b>11,625</b>



## **Operations Analysis**

### **Assumptions:**

This operations analysis has been completed for the planned new Sandy Recreation Center. The following are the basic parameters for the project.

- There will be three phases to the project.
  - *Phase 1* – Renovation of the existing aquatics building only. Approximately 16,500 SF
  - *Phase 2* – Addition of a leisure pool, universal change rooms, two small classrooms and partner space in the building and parking lot area. Approximately 47,000 SF Total
  - *Phase 3* – Addition of weight/cardio area, group fitness space, fitness studio, gym, track, climbing wall, community rooms and classrooms (2). Approximately 83,000 SF Total
  
- The first year of operation will be late 2020 or later.
  
- The Oregon minimum wage will be \$12.75 an hour in 2021.
  
- This operational budget represents NEW expenses and revenues for the center and all program accounts.
  
- The presence of other providers in the market will remain the same.
  
- The center will be operated by the City of Sandy.
  
- This operations estimate is based on a program plan and preliminary concept plan for the facility options only. This operations plan will need to be updated once a final concept design has been developed.
  
- There will be a high level of programming in the center.
  
- The center will draw well from the entire Secondary Service Area.
  
- There is the lease of partner (retail) space at market rates and revenue is based on full occupancy.
  
- No partnerships with other organizations (beyond lease space) have been shown in this operations plan.
  
- Use of the center by a youth swim team on a rental basis has been shown.

- The operational numbers do not include any site or park maintenance.
- The operational numbers do not include any central charge back fees (indirect support cost).

**Projected Hours of Operation:**

Days	Hours
Monday – Thursday	5:00am – 10:00pm
Friday	5:00am – 8:00pm
Saturday	7:00am – 8:00pm
Sunday	8:00am - 8:00pm
Total Hours Per Week	108

**Projected Fee Schedules:**

Phase 1

	Daily	10 Visit Pass	Month to Month	Annual
Adult (18-60)	\$3.50	\$28.00	\$35.00	\$420
Youth (3-18)	\$3.00	\$24.00	\$30.00	\$360
Senior (60+)	\$3.00	\$24.00	\$30.00	\$360

Phase 2

	Daily	10 Visit Pass	Month to Month	Annual
Adult (18-60)	\$5.00	\$40.00	\$40.00	\$480
Youth (3-18)	\$4.00	\$32.00	\$35.00	\$420
Senior (60+)	\$4.00	\$32.00	\$35.00	\$420
Household	N/A	N/A	\$70.00	\$840

Phase 3

	Daily	10 Visit Pass	Month to Month	Annual
Adult (18-60)	\$8.00	\$64.00	\$45.00	\$540
Youth (3-18)	\$6.00	\$48.00	\$40.00	\$480
Senior (60+)	\$6.00	\$48.00	\$40.00	\$480
Household	N/A	N/A	\$80.00	\$960

Note: 10 visit passes are a 20% discount over the daily fee. Household includes 2 adults and up to 3 youth. Each additional youth is another \$10 per month.

Monthly fees cover water or land based fitness classes.

*Drop-in Rate:*

Fitness Class	\$8.00 (water or land based)
Child Watch	\$2.50/hr

**Operations Analysis Summary:**

The following figures summarize the anticipated operational expenses and projected revenues for the proposed three phases of the Sandy Aquatic Community Center.

Operational Budget Summary	16,500 SF	47,000 SF	83,000 SF
Category	Phase 1	Phase 2	Phase 3
Expenses	\$ 724,426	\$ 1,374,395	\$ 2,549,385
Revenues	\$ 200,607	\$ 870,337	\$ 2,117,229
Difference	(523,819)	(504,058)	(432,156)
Recovery %	28%	63%	83%

This represents the second full year of operation.

This operations analysis was completed based on general information and a basic understanding of the project with a preliminary program and concept plan for the center. As a result, there is no guarantee that the expense and revenue projections outlined above will be met as there are many variables that affect such estimates that either cannot be accurately measured or are not consistent in their influence on the budgetary process.

**Expenses:**

Expenditures have been formulated based on the costs that are typically included in the operating budget for this type of facility. The figures are based on the size of the center, the specific components of the facility and the projected hours of operation. Actual costs were utilized wherever possible and estimates for other expenses were based on similar facilities in the region. All expenses were calculated as accurately as possible, but the actual costs may vary based on the final design, operational philosophy, and programming considerations adopted by staff.

Account	Category	Phase 1	Phase 2	Phase 3
	Personnel (new positions)			
	Full-time	168,750	270,000	789,750
	Part-time	399,163	726,063	1,073,997
	Total	\$ 567,913	\$ 996,063	\$ 1,863,747
601100	Supplies (Office)	3,000	5,000	12,000
601200	Postage	1,000	2,000	4,000
601300	Printing	3,000	6,000	10,000
601400	Copier Charges	1,000	3,000	3,000
601700	Books and Subscriptions	1,000	1,500	2,000
601900	Uniforms	2,000	4,000	7,000
602100	Employee Recruitment	500	1,000	2,000
602200	Conferences	1,000	1,500	3,000
602300	Training & Professional Advancement	2,000	3,000	5,000
602500	Meetings & Meals	500	1,000	3,000
603100	Mileage Rerimbursement	500	750	1,500
604100	Repairs & Maintenance	10,000	20,000	40,000
604110	Elevator Maintenance	-	5,000	5,000

# Operations Analysis

## Sandy Aquatic Community Center

Account	Category	Phase 1	Phase 2	Phase 3
607100	Utilities (Gas/Elect/Water-\$4.00 SF/\$3.50 SF Phase 3)	66,000	188,000	290,500
609100	Insurance (Property/Liability)	5,000	15,000	25,000
633100	Program - Recreation (Program Supplies)	3,000	5,000	30,000
720000	Buildings	2,000	4,000	10,000
740000	Furniture & Office Equipment	2,000	3,000	5,000
740100	Computer Equipment	500	1,000	4,000
740101	Software	2,000	4,000	8,000
	<b>Total</b>	<b>\$ 106,000</b>	<b>\$ 273,750</b>	<b>\$ 470,000</b>
	<u>Other</u>			
	Pool Chemicals	15,000	25,000	25,000
	Resale Items	2,000	5,000	10,000
	Advertising	3,000	10,000	25,000
	Bank Charges (75% of revenue x 3%)	4,514	19,583	47,638
	Misc.	1,000	5,000	8,000
	<b>Total</b>	<b>\$ 25,514</b>	<b>\$ 64,583</b>	<b>\$ 115,638</b>
	<u>Capital</u>			
	Replacement Fund	\$ 5,000	\$ 10,000	\$ 50,000
	<b>Grand Total</b>	<b>\$ 704,426</b>	<b>\$ 1,344,395</b>	<b>\$ 2,499,385</b>

# Operations Analysis

## Sandy Aquatic Community Center



### Revenues:

The following revenue projections were formulated from information on the specifics of the project and the demographics of the service areas as well as comparing them to state and national statistics, other similar facilities and the competition for services in the area. Actual figures will vary based on the size and make-up of the components selected during final design, market stratification, philosophy of operation, fees and charges policy, and priorities of use.

Category	Phase 1	Phase 2	Phase 3
<b>Fees</b>			
Daily Admissions	29,700	82,800	180,000
10 Admission	2,640	7,360	17,280
Month to Month Passes	54,385	306,452	870,968
Annual Passes	28,687	167,710	476,649
Rentals (Aquatics & General)	29,400	43,400	113,800
<b>Total</b>	<b>\$ 144,812</b>	<b>\$ 607,722</b>	<b>\$ 1,658,698</b>
<b>Programs**</b>			
Aquatics	50,295	62,625	62,625
Fitness/General	-	79,740	252,406
<b>Total</b>	<b>\$ 50,295</b>	<b>\$ 142,365</b>	<b>\$ 315,031</b>
<b>Other</b>			
Lease Payments (\$15 SF x 7,200 SF, full occupancy)		108,000	108,000
Resale Items	2,500	6,250	12,500
Special Events	1,000	2,000	4,000
Vending	2,000	4,000	12,000
Child Watch	-		7,000
<b>Total</b>	<b>\$ 5,500</b>	<b>\$ 120,250</b>	<b>\$ 143,500</b>
<b>Grand Total</b>	<b>\$ 200,607</b>	<b>\$ 870,337</b>	<b>\$ 2,117,229</b>

# Operations Analysis

## Sandy Aquatic Community Center



### Staff:

The determination of new full-time and part-time staff positions was developed based on the expected use of the facility, the hours of operation, the key amenities that are contained in the center and operational best practices for similar facilities. These figures contain expected instructors for a variety of programs that may be occurring at the facility.

Pay rates were determined based on basic job classifications and wage scales for similar positions. The wage scales for staff positions reflect an anticipated wage for 2020.

Full Time Staff	Salary	Phase 1		Phase 2		Phase 3	
		Positions	Total	Positions	Total	Positions	Total
Community Center Manager	\$65,000	0	\$0	0	\$0	1	\$65,000
Aquatics Supervisor	\$55,000	1	\$55,000	1	\$55,000	1	\$55,000
Recreation Supervisor General	\$55,000	0	\$0	0	\$0	1	\$55,000
Recreation Supervisor Fitness	\$55,000	0	\$0	0	\$0	1	\$55,000
Accounting Clerk	\$40,000	0	\$0	0	\$0	1	\$40,000
Marketing Coordinator	\$45,000	0	\$0	0	\$0	1	\$45,000
Maintenance Foreman	\$50,000	0	\$0	0	\$0	1	\$50,000
Custodian	\$40,000	0	\$0	1	\$40,000	2	\$80,000
Front Desk Supervisor	\$35,000	0	\$0	1	\$35,000	2	\$70,000
Head Lifeguard	\$35,000	2	\$70,000	2	\$70,000	2	\$70,000
Positions		3		5		13	
Salaries			\$125,000		\$200,000		\$585,000
Benefits	35.00%		\$43,750		\$70,000.00		\$204,750.00
<b>Total Full-Time Staff</b>			<b>\$168,750</b>		<b>\$270,000.00</b>		<b>\$789,750.00</b>

Part-Time	Rate	Phase 1			Phase 2			Phase 3		
		Hours	Weeks	Total	Hours	Weeks	Total	Hours	Weeks	Total
Front Desk Sup	\$ 15.00	0	52	-	19	52	\$ 14,820.00	32	52	\$ 24,960.00
Front Desk Attend	\$ 14.00	108	52	78,624	108	52	\$ 78,624.00	145	52	\$ 105,560.00
Head Lifeguard	\$ 16.00	32	52	26,624	53	52	\$ 44,368.00	53	52	\$ 44,368.00
Lifeguard	\$ 15.00	237	52	184,845	521	52	\$ 406,575.00	521	52	\$ 406,575.00
Gym Attendant	\$ 14.00	0	26	-	0	26	\$ -	49	26	\$ 17,836.00
Weight Room Attendant	\$ 14.00	0	52	-	0	52	\$ -	108	52	\$ 78,624.00
Custodian	\$ 16.00	56	52	46,592	71	52	\$ 59,072.00	71	52	\$ 59,072.00
Child Watch Attendant	\$ 14.00	0	52	-	0	52	\$ -	82	52	\$ 59,696.00
Climbing Wall Attendant	\$ 14.00	0	52	-	0	52	\$ -	25	52	\$ 18,200.00
<b>Total</b>		<b>433</b>		<b>\$ 336,685</b>	<b>773</b>		<b>\$ 603,459.00</b>	<b>1087</b>		<b>\$ 814,891.00</b>
Aquatics				\$ 26,190			\$ 32,700			\$ 32,700
Fitness/General				\$ -			\$ 23,898			\$ 128,770
<b>Total</b>				<b>\$ 362,875</b>			<b>\$ 660,057</b>			<b>\$ 976,361</b>
Benefits	10.0%			\$ 36,288			\$ 66,006			\$ 97,636
<b>Total</b>				<b>\$ 399,163</b>			<b>\$ 726,063</b>			<b>\$ 1,073,997</b>





**Admission Revenue:**

The following spreadsheets identify the expected use numbers for each form of admission that the center will offer (see projected fee schedule). Annual/Month to Month pass numbers are based on *Phase 1* - 1.0% of the households in the Secondary Service Area (22,290 in 2022) purchasing some form of an annual pass. *Phase 2* - 4% of the households in the Secondary Service Area (22,290 in 2022) purchasing some form of an annual pass. *Phase 3* - 10% of the households in the Secondary Service Area (22,290 in 2022) purchasing some form of an annual pass.

### Phase 1

Daily Fees	Fees	Number	Revenue
Adult	\$3.50	15	\$53
Youth	\$3.00	5	\$15
Senior	\$3.00	5	\$15
Total		25	\$83
Grand Total			\$29,700
x 360 days/year			
Non. Res.	% of users 25%	% of fee increase 0%	\$0
<b>Adjusted Total</b>			<b>\$29,700</b>

10 Visit Pass	Fees	Number	Revenue
Adult	\$28	60	\$1,680
Youth	\$24	10	\$240
Senior	\$24	30	\$720
Total		100	\$2,640
Non. Res.	% of users 25%	% of fee increase 0%	\$0
<b>Adjusted Total</b>			<b>\$2,640</b>

Month to Month	Fees	Number	Revenue	Months	Total Revenue
Adult	\$35	75	\$2,614	12	\$31,362
Youth	\$30	45	\$1,344	12	\$16,129
Senior	\$30	30	\$896	12	\$10,753
Family	\$0	0	\$0	12	\$0
Total		149	\$4,854		\$58,244
Non. Res.	% of users 20%	% of fee increase 0%			\$ 2,184
Sub-Total					\$ 60,428
Loss	10%		\$0		\$6,043
<b>Adjusted Total</b>					<b>\$54,385</b>

50%  
30%  
20%  
100%

Annual Passes	Fees	Number	Revenue
Adult	\$420	37	\$15,447
Youth	\$360	22	\$7,944
Senior	\$360	15	\$5,296
Family	\$0	0	\$0
Total		74	\$28,687
Non. Res.	% of users 20%	% of fee increase 0%	\$0
<b>Adjusted Total</b>			<b>\$28,687</b>

50%  
30%  
20%  
100%

Revenue Summary	
Daily	\$29,700
10 Visit	\$2,640
Month to Month	\$54,385
Annual Passes	\$28,687
<b>Total</b>	<b>\$115,412</b>

Passes	
	149
	74
	<b>223</b>

Annual/Month to Month Passes equal 1% of the households (2022) in the Secondary Service Area (22,290)

223

# Operations Analysis

## Sandy Aquatic Community Center

### Phase 2

Daily Fees	Fees	Number	Revenue
Adult	\$5.00	30	\$150
Youth	\$4.00	10	\$40
Senior	\$4.00	10	\$40
Total		50	\$230
Grand Total			x 360 days/year \$82,800
Non. Res.	% of users 25%	% of fee increase 0%	\$0
<b>Adjusted Total</b>			<b>\$82,800</b>

10 Visit Pass	Fees	Number	Revenue
Adult	\$40	120	\$4,800
Youth	\$32	20	\$640
Senior	\$32	60	\$1,920
Total		200	\$7,360
Non. Res.	% of users 25%	% of fee increase 0%	\$0
<b>Adjusted Total</b>			<b>\$7,360</b>

Month to Month	Fees	Number	Revenue	Months	Total Revenue
Adult	\$40	239	\$9,558	12	\$114,695
Youth	\$35	60	\$2,091	12	\$25,090
Senior	\$35	119	\$4,182	12	\$50,179
Family	\$70	179	\$12,545	12	\$150,538
Total		597	\$28,375		\$340,502
Non. Res.	% of users 20%	% of fee increase 0%			\$ -
Sub-Total					\$ 340,502
Loss	10%		\$0		\$34,050
<b>Adjusted Total</b>					<b>\$306,452</b>

40%  
10%  
20%  
30%  
100%

Annual Passes	Fees	Number	Revenue
Adult	\$480	118	\$56,492
Youth	\$420	29	\$12,358
Senior	\$420	59	\$24,715
Family	\$840	88	\$74,145
Total		294	\$167,710
Non. Res.	% of users 20%	% of fee increase 0%	\$0
<b>Adjusted Total</b>			<b>\$167,710</b>

40%  
10%  
20%  
30%  
100%

Revenue Summary	
Daily	\$82,800
10 Visit	\$7,360
Month to Month	\$306,452
Annual Passes	\$167,710
<b>Total</b>	<b>\$564,322</b>

Passes	
	597
	294
<b>Total</b>	<b>892</b>

Annual/Month to Month Passes equal 4% of the households (2022) in the Secondary Service Area (22,290)

892

### Phase 3

Daily Fees	Fees	Number	Revenue
Adult	\$8.00	40	\$320
Youth	\$6.00	15	\$90
Senior	\$6.00	15	\$90
<b>Total</b>		<b>70</b>	<b>\$500</b>
<b>Grand Total</b>			<b>\$180,000</b>
			x 360 days/year
Non. Res.	% of users	% of fee increase	
	25%	0%	\$0
<b>Adjusted Total</b>			<b>\$180,000</b>

10 Visit Pass	Fees	Number	Revenue
Adult	\$64	180	\$11,520
Youth	\$48	30	\$1,440
Senior	\$48	90	\$4,320
<b>Total</b>		<b>300</b>	<b>\$17,280</b>
Non. Res.	% of users	% of fee increase	
	25%	0%	\$0
<b>Adjusted Total</b>			<b>\$17,280</b>

Month to Month	Fees	Number	Revenue	Months	Total Revenue
Adult	\$45	597	\$26,882	12	\$322,581
Youth	\$40	149	\$5,974	12	\$71,685
Senior	\$40	299	\$11,947	12	\$143,369
Family	\$80	448	\$35,842	12	\$430,108
<b>Total</b>		<b>1,493</b>	<b>\$80,645</b>		<b>\$967,743</b>
Non. Res.	% of users	% of fee increase			
	20%	0%			\$ -
Sub-Total					\$ 967,743
Loss	10%		\$0		\$96,774
<b>Adjusted Total</b>					<b>\$870,968</b>

40%  
10%  
20%  
30%  
100%

Annual Passes	Fees	Number	Revenue
Adult	\$540	294	\$158,883
Youth	\$480	74	\$35,307
Senior	\$480	147	\$70,615
Family	\$960	221	\$211,844
<b>Total</b>		<b>736</b>	<b>\$476,649</b>
Non. Res.	% of users	% of fee increase	
	20%	0%	\$0
<b>Adjusted Total</b>			<b>\$476,649</b>

40%  
10%  
20%  
30%  
100%

Revenue Summary	
Daily	\$180,000
10 Visit	\$17,280
Month to Month	\$870,968
Annual Passes	\$476,649
<b>Total</b>	<b>\$1,544,898</b>

Passes	
	1493
	736
<b>Total</b>	<b>2229</b>

Annual/Month to Month Passes equal 10% of the households (2022) in the Secondary Service Area (22,290

2,229

# Operations Analysis

## Sandy Aquatic Community Center



### Programs:

The following worksheets indicate representative recreation programs that could take place at the center, the costs of providing the service and the expected revenue. There are no General Programs for Phase 1.

These are representative programs only.

### Phase 2 – General Programs

Adult Leagues	Position	Staff	Rate/Game	Game/Wk	Weeks	Total
Basketball	Official	2	\$20.00	0	20	\$ -
	Scorer	1	\$14.00	0	20	\$ -
Volleyball	Official	1	\$15.00	0	20	\$ -
<b>Total</b>						\$ -

Youth Leagues	Position	Staff	Rate/Game	Game/Wk	Weeks	Total
Basketball	Official	2	\$15.00	0	10	\$ -
	Scorer	1	\$14.00	0	10	\$ -
Volleyball	Official	1	\$15.00	0	10	\$ -
<b>Total</b>						\$ -

Youth Sports Camps	Position	Staff	Rate/Hr	Number	Hours	Total
Basketball	Coaches	2	\$25.00	0	16	\$ -
Volleyball	Coaches	2	\$25.00	0	16	\$ -
Other	Coaches	2	\$25.00	0	16	\$ -
<b>Total</b>						\$ -

Youth Sports Clinics	Position	Staff	Rate/Hr	Number	Hours	Total
Basketball	Coaches	3	\$25.00	0	4	\$ -
Volleyball	Coaches	3	\$25.00	0	4	\$ -
Other	Coaches	3	\$25.00	0	4	\$ -
<b>Total</b>						\$ -

Fitness	Rate/Class	Classes/Week	Number of Staff	Weeks	Total
Group Fitness Classes	\$ 20.00	10	1	52	\$ 10,400
Personal Training	\$ 35.00	0	1	52	\$ -
Small Group Training	\$ 25.00	0	1	52	\$ -
<b>Total</b>					\$ 10,400

Birthday Parties	Rate/Class	Classes/Week	Number of Hours	Weeks	Total
Parties	\$ 14.00	8	2	52	\$ 11,648
<b>Total</b>					\$ 11,648

General Recreation Classes	Rate/Class	Classes/Week	Number of Staff	Weeks	Total
Adult Classes	\$ 15.00	0	1	36	\$ -
Senior Classes	\$ 15.00	0	1	36	\$ -
Youth/Teen Classes	\$ 15.00	0	1	36	\$ -
Summer/Break Day Camp					
Supervisor	\$ 13.50	0	1	10	\$ -
Leader	\$ 12.50	0	4	10	\$ -
Misc. Classes	\$ 12.50	3	1	36	\$ 1,350
<b>Total</b>					\$ 1,350

Contract/Other					\$ 500
<b>Grand Total</b>					\$ 23,898

# Operations Analysis

## Sandy Aquatic Community Center



**Program Calculations - Revenues**

<b>Adult Leagues</b>					
	Teams	Fee	Seasons	Total	
Basketball	12	\$ 350	0	\$	-
Volleyball	12	\$ 200	0	\$	-
Total				\$	-

<b>Youth Leagues</b>					
	Players	Fee	Seasons	Total	
Basketball	120	\$ 50	0	\$	-
Volleyball	120	\$ 50	0	\$	-
Total				\$	-

<b>Youth Sports Camps</b>					
	Participants	Fee	Sessions	Total	
Basketball	20	\$ 65	0	\$	-
Volleyball	20	\$ 65	0	\$	-
Other	20	\$ 65	0	\$	-
Total				\$	-

<b>Youth Sports Clinics</b>					
	Participants	Fee	Number	Total	
Basketball	30	\$ 30	0	\$	-
Volleyball	30	\$ 30	0	\$	-
Other	30	\$ 30	0	\$	-
Total				\$	-

<b>Fitness</b>					
	Rate/Class	Classes/Week	Participants	Weeks/sessions	Total
Group Fitness Classes	\$ 8.00	10	8	52	\$ 33,280
Personal Training	\$ 45.00		1	52	\$ -
Small Group	\$ 30.00		3	52	\$ -
Total					\$ 33,280

<b>Birthday Parties</b>					
	Rate	Number	Weeks	Total	
Parties	\$ 100.00	8	52	\$	41,600
Total				\$	41,600

<b>General Recreation Classes</b>					
	Rate/Class	Classes/Week	Participants	Weeks/sessions	Total
Pickleball	\$ 5.00	0	25	30	\$ -
Adult Classes	\$ 35.00	0	8	8	\$ -
Senior Classes	\$ 20.00	0	6	8	\$ -
Youth/Teen Classes	\$ 25.00	0	8	8	\$ -
Summer/Break Camp	\$ 100.00	0	40	9	\$ -
Misc. Classes	\$ 35.00	3	8	4	\$ 3,360
Total					\$ 3,360

Contract/Other		\$	1,500
Sub-Total		\$	79,740
Non-Resident (25% x 25% increase)		\$	-
<b>Grand Total</b>		<b>\$</b>	<b>79,740</b>

# Operations Analysis

## Sandy Aquatic Community Center



### Phase 3 – General Programs

#### Program Calculations - Expenses

Adult Leagues	Position	Staff	Rate/Game	Game/Wk	Weeks	Total
Basketball	Official	2	\$20.00	3	10	\$ 1,200
	Scorer	1	\$14.00	3	10	\$ 420
Volleyball	Official	1	\$15.00	3	10	\$ 450
<b>Total</b>						\$ 2,070

Youth Leagues	Position	Staff	Rate/Game	Game/Wk	Weeks	Total
Basketball	Official	2	\$15.00	4	10	\$ 1,200
	Scorer	1	\$14.00	4	10	\$ 560
Volleyball	Official	1	\$15.00	4	10	\$ 600
<b>Total</b>						\$ 2,360

Youth Sports Camps	Position	Staff	Rate/Hr	Number	Hours	Total
Basketball	Coaches	2	\$25.00	2	16	\$ 1,600
Volleyball	Coaches	2	\$25.00	2	16	\$ 1,600
Other	Coaches	2	\$25.00	2	16	\$ 1,600
<b>Total</b>						\$ 4,800

Youth Sports Clinics	Position	Staff	Rate/Hr	Number	Hours	Total
Basketball	Coaches	3	\$25.00	2	4	\$ 600
Volleyball	Coaches	3	\$25.00	2	4	\$ 600
Other	Coaches	3	\$25.00	2	4	\$ 600
<b>Total</b>						\$ 1,800

Fitness	Rate/Class	Classes/Week	Number of Staff	Weeks	Total
Group Fitness Classes	\$ 20.00	42	1	52	\$ 43,680
Personal Training	\$ 35.00	8	1	52	\$ 14,560
Small Group Training	\$ 25.00	4	1	52	\$ 5,200
<b>Total</b>					\$ 63,440

Birthday Parties	Rate/Class	Classes/Week	Number of Hours	Weeks	Total
Parties	\$ 14.00	10	2	52	\$ 14,560
<b>Total</b>					\$ 14,560

General Recreation Classes	Rate/Class	Classes/Week	Number of Staff	Weeks	Total
Adult Classes	\$ 15.00	6	1	36	\$ 3,240
Senior Classes	\$ 15.00	4	1	36	\$ 2,160
Youth/Teen Classes	\$ 15.00	6	1	36	\$ 3,240
Summer/Break Day Camp					
Supervisor	\$ 13.50	40	1	10	\$ 5,400
Leader	\$ 12.50	40	4	10	\$ 20,000
Misc. Classes	\$ 12.50	6	1	36	\$ 2,700
<b>Total</b>					\$ 36,740

Contract/Other						\$ 3,000
<b>Grand Total</b>						\$ 128,770



# Operations Analysis

## Sandy Aquatic Community Center



**Program Calculations - Revenues**

Adult Leagues	Teams	Fee	Seasons	Total
Basketball	6	\$ 350	1	\$ 2,100
Volleyball	6	\$ 200	1	\$ 1,200
<b>Total</b>				<b>\$ 3,300</b>

Youth Leagues	Players	Fee	Seasons	Total
Basketball	80	\$ 50	1	\$ 4,000
Volleyball	80	\$ 50	1	\$ 4,000
<b>Total</b>				<b>\$ 8,000</b>

Youth Sports Camps	Participants	Fee	Sessions	Total
Basketball	20	\$ 75	2	\$ 3,000
Volleyball	20	\$ 75	2	\$ 3,000
Other	20	\$ 75	2	\$ 3,000
<b>Total</b>				<b>\$ 9,000</b>

Youth Sports Clinics	Participants	Fee	Number	Total
Basketball	30	\$ 30	2	\$ 1,800
Volleyball	30	\$ 30	2	\$ 1,800
Other	30	\$ 30	2	\$ 1,800
<b>Total</b>				<b>\$ 5,400</b>

Fitness	Rate/Class	Classes/Week	Participants	Weeks/sessions	Total
Group Fitness Classes	\$ 8.00	42	3	52	\$ 52,416
Personal Training	\$ 45.00	8	1	52	\$ 18,720
Small Group	\$ 30.00	4	3	52	\$ 18,720
<b>Total</b>					<b>\$ 89,856</b>

Birthday Parties	Rate	Number	Weeks	Total
Parties	\$ 100.00	10	52	\$ 52,000
<b>Total</b>				<b>\$ 52,000</b>

General Recreation Classes	Rate/Class	Classes/Week	Participants	Weeks/sessions	Total
Pickleball	\$ 5.00	3	25	30	\$ 11,250
Adult Classes	\$ 35.00	6	8	8	\$ 13,440
Senior Classes	\$ 20.00	4	6	8	\$ 3,840
Youth/Teen Classes	\$ 25.00	6	8	8	\$ 9,600
Summer/Break Camp	\$ 100.00	1	40	9	\$ 36,000
Misc. Classes	\$ 35.00	6	8	4	\$ 6,720
<b>Total</b>					<b>\$ 80,850</b>

Contract/Other	\$ 4,000
Sub-Total	\$ 252,406
Non-Resident (25% x 25% increase)	\$ -
<b>Grand Total</b>	<b>\$ 252,406</b>

# Operations Analysis

## Sandy Aquatic Community Center



### Phase 1 – Aquatic Programs

#### Program Calculations - Expenses

<i>Learn to Swim Classes (1/2 Hr.)</i>	Rate/Class	Classes/Day	Days	Sessions	Total
Summer	\$ 7.50	15	8	3	\$ 2,700
Fall	\$ 7.50	9	8	3	\$ 1,620
Winter/Spring	\$ 7.50	9	8	4	\$ 2,160
<b>Total</b>					<b>\$ 6,480</b>

<i>Water Exercise</i>	Rate/Class	Classes/Wk	Weeks	Total
Summer	\$ 15.00	12	14	\$ 2,520
Fall	\$ 15.00	12	12	\$ 2,160
Winter/Spring	\$ 15.00	12	26	\$ 4,680
<b>Total</b>				<b>\$ 9,360</b>

<i>Other</i>	Rate/Class	Classes/Wk	Weeks	Total
Private Lessons	\$ 20.00	3	45	\$ 2,700
Lifeguard Training	\$ 25.00	33	2	\$ 1,650
Misc.	\$ 20.00	4	50	\$ 4,000
<b>Total</b>				<b>\$ 8,350</b>

Contract/Other \$ 2,000

**Grand Total \$ 26,190**

#### Program Calculations - Revenues

<i>Learn to Swim</i>	Classes/Week	Fee	Participants	Sessions	Total
Summer	15	\$ 45.00	4	3	\$ 8,100
Fall	9	\$ 45.00	4	3	\$ 4,860
Winter/Spring	9	\$ 45.00	4	4	\$ 6,480
Private Lessons	3	\$ 25.00	1	45	\$ 3,375
<b>Total</b>					<b>\$ 22,815</b>

<i>Water Aerobics</i>	Classes/Week	Fee	Participants	Sessions	Total
Summer	12	\$ 5.00	4	14	\$ 3,360
Fall	12	\$ 5.00	4	12	\$ 2,880
Winter/Spring	12	\$ 5.00	4	26	\$ 6,240
<b>Total</b>					<b>\$ 12,480</b>

<i>Other</i>	Classes/Week	Fee	Participants	Sessions	Total
Lifeguard Training	1	\$ 100.00	10	2	\$ 2,000
Misc.	4	\$ 10.00	5	50	\$ 10,000
<b>Total</b>					<b>\$ 12,000</b>

Contract/Other \$ 3,000

Sub-Total \$ 50,295

Non-Resident (25% x 25% increase) \$ -

**Grand Total \$ 50,295**

## Phase 2-3 – Aquatic Programs

### Program Calculations - Expenses

<b>Learn to Swim Classes (1/2 Hr.)</b>	<b>Rate/Class</b>	<b>Classes/Day</b>	<b>Days</b>	<b>Sessions</b>	<b>Total</b>
Summer	\$ 7.50	18	8	3	\$ 3,240
Fall	\$ 7.50	12	8	3	\$ 2,160
Winter/Spring	\$ 7.50	9	8	4	\$ 2,160
<b>Total</b>					<b>\$ 7,560</b>

<b>Water Exercise</b>	<b>Rate/Class</b>	<b>Classes/Wk</b>	<b>Weeks</b>	<b>Total</b>
Summer	\$ 15.00	15	14	\$ 3,150
Fall	\$ 15.00	12	12	\$ 2,160
Winter/Spring	\$ 15.00	12	26	\$ 4,680
<b>Total</b>				<b>\$ 9,990</b>

<b>Other</b>	<b>Rate/Class</b>	<b>Classes/Wk</b>	<b>Weeks</b>	<b>Total</b>
Private Lessons	\$ 20.00	5	45	\$ 4,500
Lifeguard Training	\$ 25.00	33	2	\$ 1,650
Misc.	\$ 20.00	6	50	\$ 6,000
<b>Total</b>				<b>\$ 12,150</b>

Contract/Other	\$	3,000
<b>Grand Total</b>	<b>\$</b>	<b>32,700</b>

### Program Calculations - Revenues

<b>Learn to Swim</b>	<b>Classes/Week</b>	<b>Fee</b>	<b>Participants</b>	<b>Sessions</b>	<b>Total</b>
Summer	18	\$ 45.00	4	3	\$ 9,720
Fall	12	\$ 45.00	4	3	\$ 6,480
Winter/Spring	9	\$ 45.00	4	4	\$ 6,480
Private Lessons	5	\$ 25.00	1	45	\$ 5,625
<b>Total</b>					<b>\$ 28,305</b>

<b>Water Aerobics</b>	<b>Classes/Week</b>	<b>Fee</b>	<b>Participants</b>	<b>Sessions</b>	<b>Total</b>
Summer	15	\$ 5.00	4	14	\$ 4,200
Fall	12	\$ 5.00	4	12	\$ 2,880
Winter/Spring	12	\$ 5.00	4	26	\$ 6,240
<b>Total</b>					<b>\$ 13,320</b>

<b>Other</b>	<b>Classes/Week</b>	<b>Fee</b>	<b>Participants</b>	<b>Sessions</b>	<b>Total</b>
Lifeguard Training	1	\$ 100.00	10	2	\$ 2,000
Misc.	6	\$ 10.00	5	50	\$ 15,000
<b>Total</b>					<b>\$ 17,000</b>

Contract/Other	\$	4,000
Sub-Total	\$	62,625
Non-Resident (25% x 25% increase)	\$	-
<b>Grand Total</b>	<b>\$</b>	<b>62,625</b>

**Rental Revenue:**

These worksheets indicate the expected revenue that will be obtained through the rental of the various areas of the center for events and other activities. There are no General Rentals for Phase 1.

**Phase 2 – General Rentals**

Revenues	Rate/Hr.	Number of Hrs.	Weeks	Total
Classroom (small)	\$ 25	2	50	\$ 2,500
Classroom (medium)	\$ 35	2	50	\$ 3,500
Classroom (large)	\$ 50		50	\$ -
Community Room (per section)	\$ 45		50	\$ -
Community Room (wknd-6 hrs)	\$ 850		24	\$ -
Kitchen	\$ 35		50	\$ -
Climbing Wall	\$ 75		50	\$ -
Gym (per court)	\$ 50		26	\$ -
Group Exercise Studio	\$ 75		10	\$ -
Fitness Studio	\$ 60		10	\$ -
<b>Total</b>				<b>\$ 6,000</b>

**Phase 3 - General Rentals**

# Operations Analysis

## Sandy Aquatic Community Center



Revenues	Rate/Hr.	Number of Hrs.	Weeks	Total
Classroom (small)	\$ 25	2	50	\$ 2,500
Classroom (medium)	\$ 35	2	50	\$ 3,500
Classroom (large)	\$ 50	4	50	\$ 10,000
Community Room (per section)	\$ 45	3	50	\$ 6,750
Community Room (wknd-6 hrs)	\$ 950	1	40	\$ 38,000
Kitchen	\$ 35	4	50	\$ 7,000
Climbing Wall	\$ 75	1	10	\$ 750
Gym (per court)	\$ 50	4	26	\$ 5,200
Group Exercise Studio	\$ 75	2	10	\$ 1,500
Fitness Studio	\$ 60	2	10	\$ 1,200
<b>Total</b>				<b>\$ 76,400</b>

### Phase 1 – Aquatic Rentals

Revenues	Rate/Hr.	Number of Hrs.	Weeks	Total
Lap Pool	\$75	2	20	\$ 3,000
Swim Team Lane Rental (6 lanes x 2hrs x 5 days x 40 wks)	\$10	10	40	\$ 24,000
Swim Meets	\$75	4	8	\$ 2,400
<b>Total</b>				<b>\$ 29,400</b>

### Phase 2-3 – Aquatic Rentals

Revenues	Rate/Hr.	Number of Hrs.	Weeks	Total
Lap Pool	\$75	2	20	\$ 3,000
Swim Team Lane Rental (6 lanes x 2hrs x 5 days x 40 wks)	\$10	10	40	\$ 24,000
Swim Meets	\$75	4	8	\$ 2,400
Leisure Pool	\$200	2	20	\$ 8,000
<b>Total</b>				<b>\$ 37,400</b>



## 4. Concept and Phasing

Building Concept **Opsis Architecture**

Park Concept **Walker Macy**





# Building Concept

## Complete Building - All Phases

The programmatic functions of the building are situated along a two-story circulation spine which runs down the center of the building leading north to south. This main corridor connects the street entry to the park beyond. A new recreation pool south of the existing aquatics will be visible from the street and help to activate the pedestrian edge of Pleasant Street. A partnership space is also situated on this edge to activate the street. A new two-court gymnasium and indoor running track north of the existing Olin Bignall Aquatics Center opens up to the park beyond. The remaining active-use and community spaces exist on the east side of the structure, flanking the circulation corridor, located on separate floors of a two-story volume. Administration spaces also exist on both floors within this volume, acting as the check-in points for customers and visitors. Two trays of parking reflect the sloping terrain of the site and contain entry points to the building from both levels. The existing two story bunker building gets turned into a single story structure. This allows for parking to be placed on top of the structure. The remaining level will be re-purposed into a variety of educational and community center programs. Also allowing space for IT.

### Main Program Functions:

- Two Court Gym and Elevated Track
- Recreation Pool
- Lap Pool
- Hot Tub
- Cardio / Weights Room
- Rock Climbing
- Multipurpose Room
- Classrooms
- Partnership Space
- Administration
- Parking Stalls

Complete Building Area: 82,200 SF



## LEVEL 3

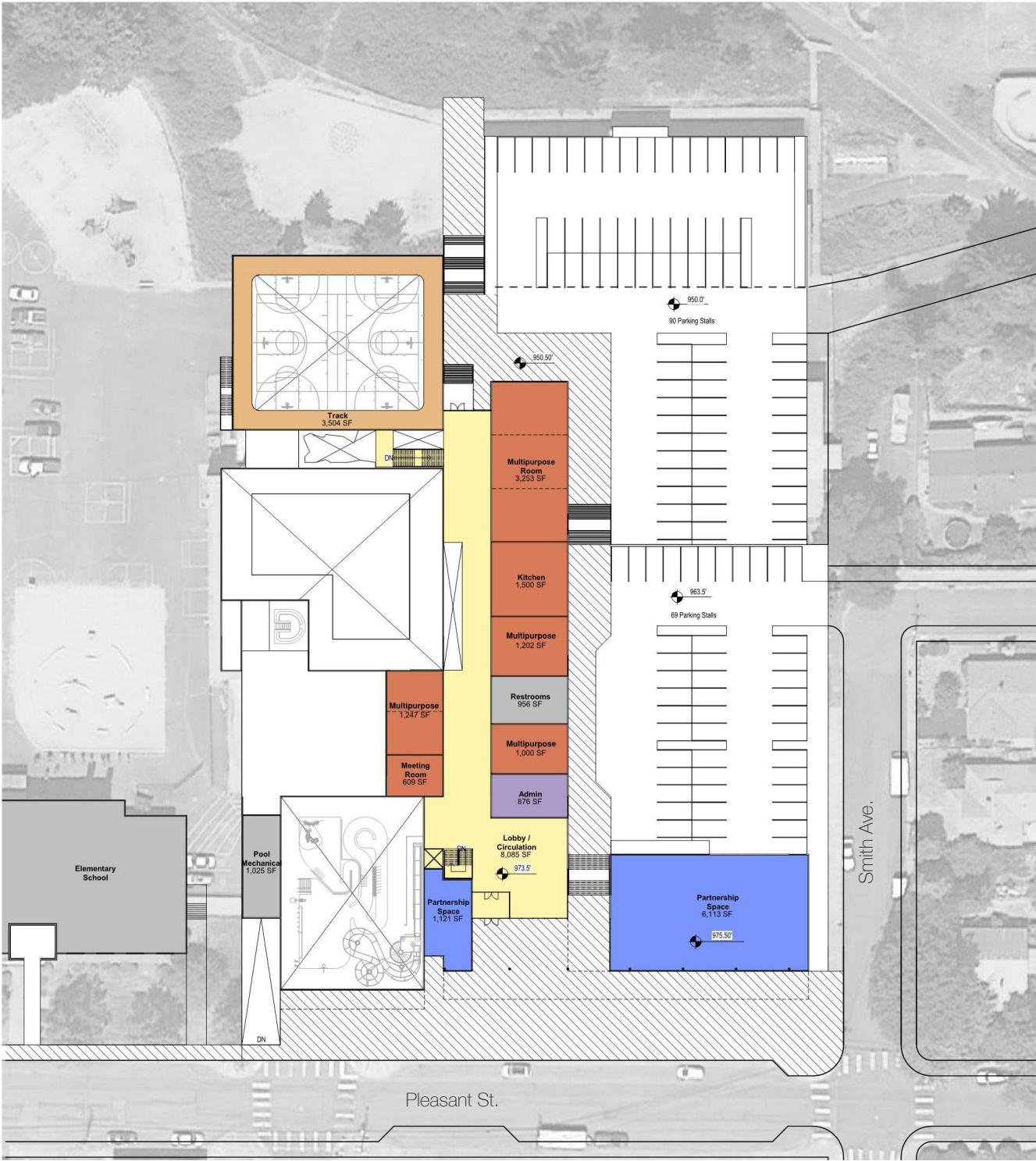
### PROGRAM SPACES:

Two Court Gym  
 Rock Climbing  
 Cardio / Weights Room  
 Fitness Studio  
 Group Exercise

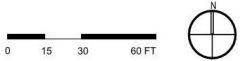
Recreation Pool  
 Lap Pool  
 Hot Tub  
 Pool Mechanical  
 Changing Rooms

Aquatics Office  
 Locker Rooms  
 Storage  
 Administration  
 Lobby

Parking Stalls: 69

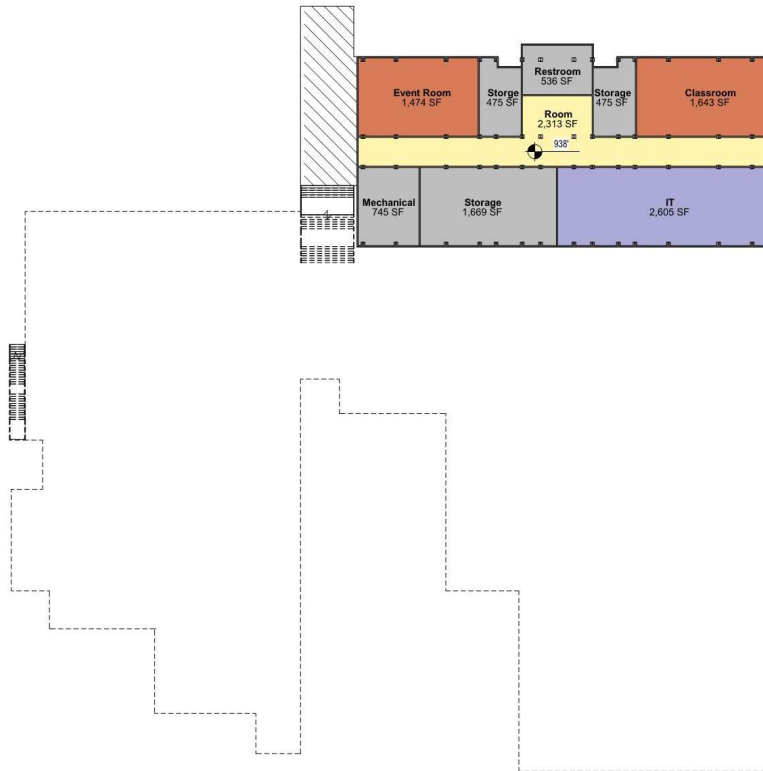


# STREET LEVEL



**PROGRAM SPACES:**

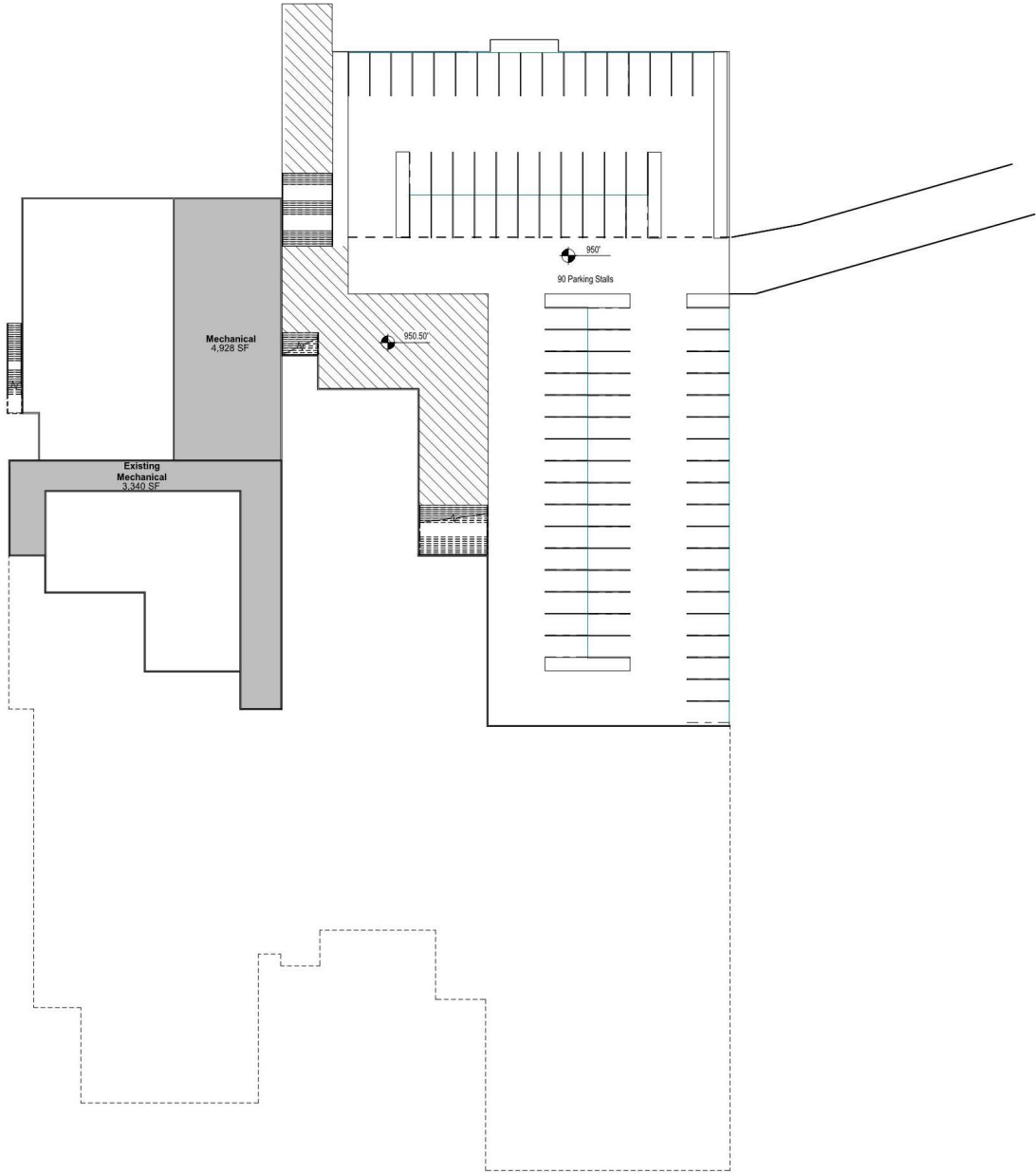
- Elevated Track
- Multipurpose Room
- Classrooms
- Partnership Space
- Kitchen
- Meeting Room
- Administration
- Lobby
- Restrooms



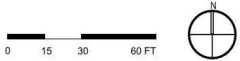
# LEVEL 1

PROGRAM SPACES:

- Event Room
- Classroom
- IT
- Restroom
- Storage / Mechanical



# LEVEL 2



PROGRAM SPACES:

Existing Mechanical  
New Mechanical

Parking Stalls: 90

<b>Phase 1</b>	<b>Program Size</b>
Existing Lap Pool	<b>10,480 sf</b>
Hot Tub	<b>1,034 sf</b>
Locker Rooms - Men's	<b>1,570 sf</b>
Locker Rooms - Women's	<b>1,490 sf</b>
Aquatic Supervisor's Office	<b>178 sf</b>
Pool Mechanical	<b>1,025 sf</b>
<b>Total Net Assignable Area</b>	<b>15,777 sf</b>
<b>Circulation Space</b>	<b>0 sf</b>

<b>NET BUILDING AREA FOR PHASE 1</b>	<b>15,777</b>
<b>GROSS BUILDING AREA FOR PHASE 1</b>	<b>16,200</b>

<b>Phase 2</b>	<b>Program Size</b>
Recreation Pool	<b>7,345 sf</b>
Universal Changing Rooms (90sf ea)	<b>540 sf</b>
Aquatic's	<b>886 sf</b>
Storage	<b>550 sf</b>
Adminstration	<b>2,326 sf</b>
Partnership Space	<b>7,234 sf</b>
Meeting Room	<b>609 sf</b>
Drop-in Childwatch Room (partial)	<b>415 sf</b>
Lobby	<b>3,660 sf</b>
<b>Total Net Assignable Area</b>	<b>23,565 sf</b>
<b>Circulation Space</b>	<b>4,104 sf</b>

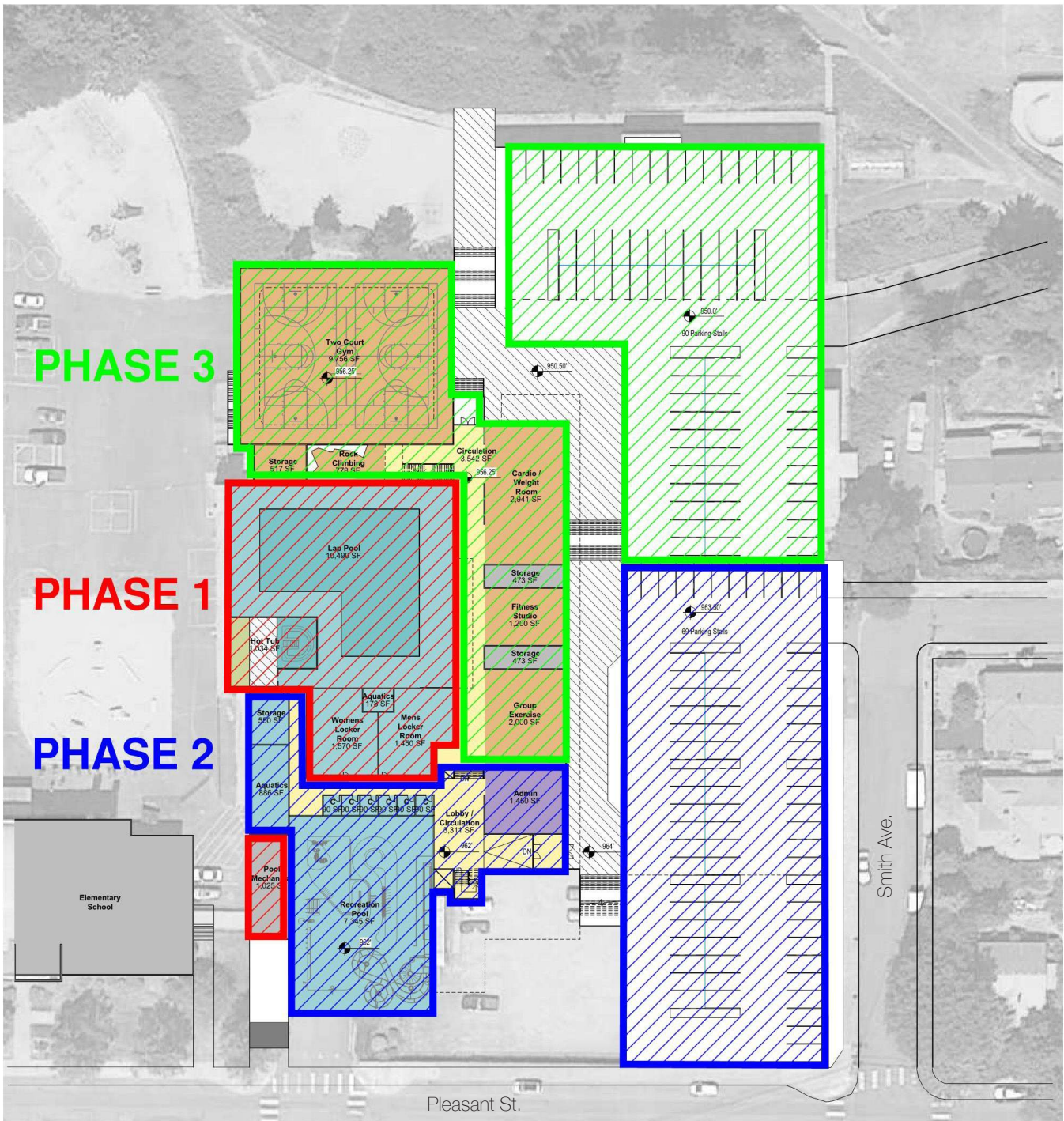
<b>NET BUILDING AREA FOR PHASE 2</b>	<b>27,669</b>
<b>GROSS BUILDING AREA FOR PHASE 2</b>	<b>28,700</b>

# Phasing Options

<b>Phase 3</b>	<b>Program Size</b>
Multi-Purpose Gymnasium (court @ 50 x74)	<b>9,756 sf</b>
Storage	<b>517 sf</b>
Rock Climbing / Bouldering	<b>778 sf</b>
Cardiovascular / Weight Room	<b>2,941 sf</b>
Fitness Studio	<b>1,200 sf</b>
Storage	<b>946 sf</b>
Multi-Purpose Group Exercise	<b>2,000 sf</b>
Elevated Walk / Jog Track w/ Stretching	<b>3,504 sf</b>
Community Room (Divisible into 3 rooms)	<b>3,250 sf</b>
CR Commercial Kitchen	<b>1,500 sf</b>
Teen Hangout / Makerspace	<b>1,202 sf</b>
Drop-in Childwatch Room	<b>584 sf</b>
Restroom	<b>956 sf</b>
Multi-Purpose Classroom	<b>1,247 sf</b>
<b>Total Net Assignable Area</b>	<b>30,381 sf</b>
<b>Circulation Space</b>	<b>7,143 sf</b>

<b>NET BUILDING AREA FOR PHASE 3</b>	<b>37,524</b>
<b>GROSS BUILDING AREA FOR PHASE 3</b>	<b>38,300</b>

<b>NET COMPLETE BUILDING</b>	<b>80,970</b>
<b>GROSS COMPLETE BUILDING</b>	<b>83,200</b>



## LEVEL 3

### PHASE ONE (RENOVATE):

- Upgrade existing pool mechanical
- Upgrade mechanical and electrical
- Maintenance repairs to existing building and spaces.

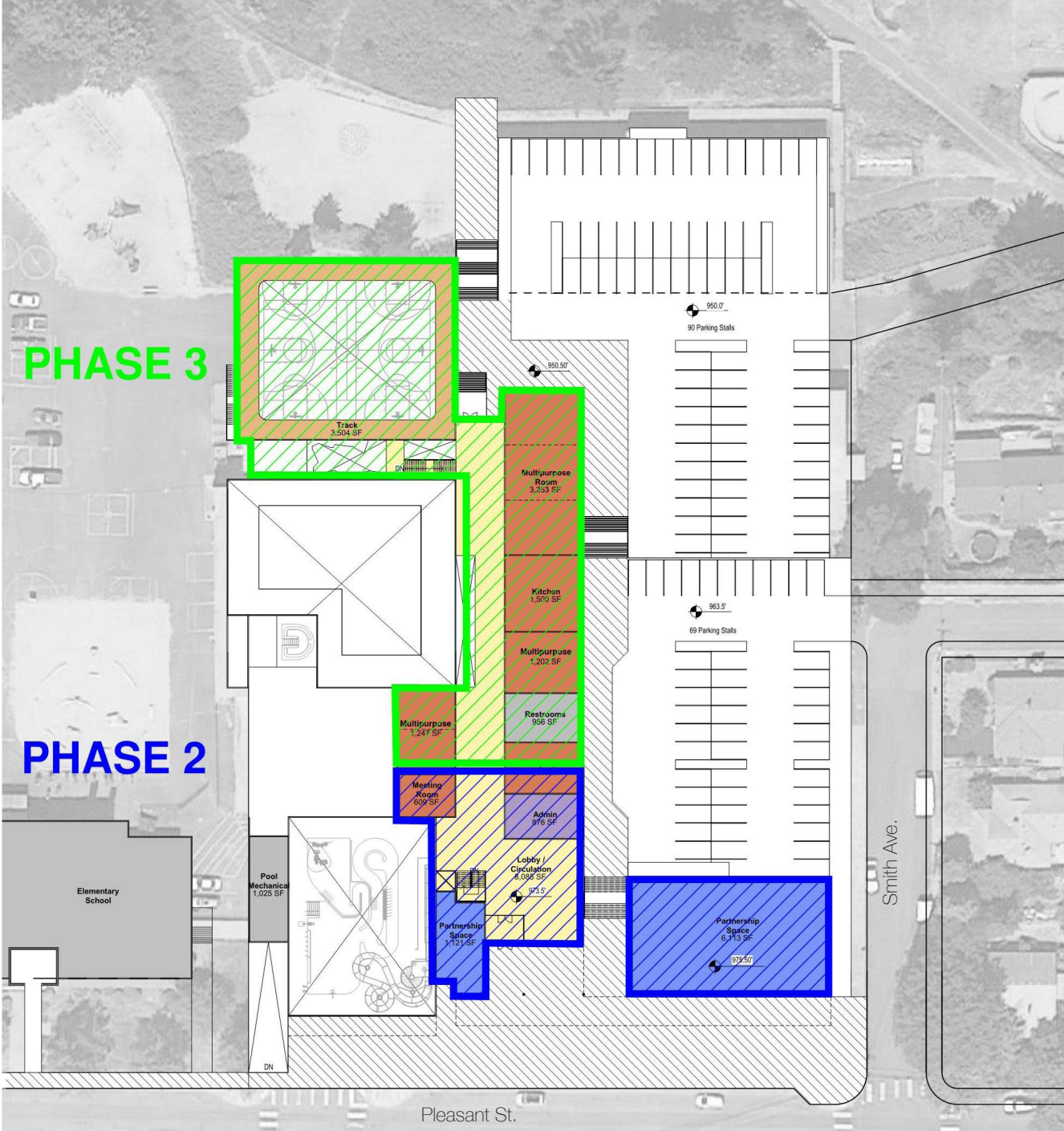
### PHASE TWO (NEW ADDITION):

- New Administration Area
- New Recreation Pool
- Renovate locker rooms and add changing rooms
- Renovate existing upper parking area
- Upgrade existing pool mechanical

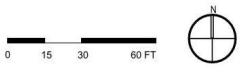
### PHASE THREE (NEW ADDITION):

- New 2-Court Gym
- New multipurpose and classrooms
- Parking deck
- Renovate existing Middle School Building





# STREET LEVEL



## PHASE TWO (NEW ADDITION):

- New Administration Area
- New Partnership Building

## PHASE THREE (NEW ADDITION):

- Walking track
- New multipurpose rooms and classrooms



VIEW FROM THE SOUTH WEST

# Axonometric Views



VIEW FROM THE SOUTH EAST





# PARK CONCEPT

## NARRATIVE

Programmatically, the upper tier of the park would primarily accommodate family and group activities. The lower tier of the park would allow for active sport activities while also providing flexible event space.





## PHASE 1

### NARRATIVE

The first phase of the park would rehabilitate the upper field into a community park including programs such as a playground, basketball court, picnic area, community garden and updated skate park.



## PHASE 2



### NARRATIVE

The second phase would develop a substantial portion of the lower field by first removing the existing sport track. Programs built into this phase would include a large flexible lawn space for a variety of uses, an exercise circuit pathway, and a bike pump track. New vegetation would be installed in this phase in order to tie into the adjacent forest to the north while providing areas of respite and interest for future users.



## PHASE 3

### NARRATIVE

Phase three would add an amphitheater built into the existing hillside which could host various civic or private outdoor events. This phase would also establish a network of ADA accessible routes to easily traverse between pool and park and other portions of the site.





## PHASE 4



### NARRATIVE

The fourth phase would develop the far north end of the park with additional active sport functions including a challenge course for all ages. Additional vegetation would help blend the site into the forest with the use of native plant species.



## 5. Cost Summary

Building Concept **Opsis Architecture**

Park Concept **Walker Macy**

# SANDY COMMUNITY CENTER RENOVATION CONCEPTUAL COST MODEL SUMMARY - BUILDING

## PHASE ONE

Demolition		\$603,720
Building	16,200 sf	\$6,753,500
Site		\$441,350
<b>Total Const Cost</b>		<b>\$7,798,570</b>
Soft Costs (30%)		\$2,339,571
<b>TOTAL PROJECT COST</b>		<b>\$10,138,141</b>

## Phase One Scope - 16,200 sf

Remove Middle School and Playshed  
 Renovate pool, existing building and MEP Systems  
 New Building Entry and gravel middle school

## PHASE TWO

Demolition		\$0
Building	28,700 sf	\$16,779,750
Site		\$1,330,875
<b>Total Const Cost</b>		<b>\$18,110,625</b>
Soft Costs (30%)		\$5,433,188
<b>TOTAL PROJECT COST</b>		<b>\$23,543,813</b>

## Phase Two Scope - 28,700 sf

No Demolition  
 New Rec Pool Addition, Admin Area and Partnership Bldg  
 Entry Plaza Improvements

## PHASE THREE

Demolition		\$365,625
Building	38,300 sf	\$14,283,750
Site		\$567,125
<b>Total Const Cost</b>		<b>\$15,216,500</b>
Soft Costs (30%)		\$4,564,950
<b>TOTAL PROJECT COST</b>		<b>\$19,781,450</b>

## Phase Three Scope - 38,300 sf

Remove Second Floor of Bunker Bldg  
 New Gym and 2 story addition.  
 Renovate north parking lot and new entry drive

**GROSS PROJECT BLDG AREA 83,200 sf**

**TOTAL IMPROVEMENT COST \$53,463,404**

**Unescalated Cost - Fall 2018**

# SANDY COMMUNITY CENTER RENOVATION CONCEPTUAL COST MODEL - BUILDING PHASE ONE

	Area	Cost/SF Range	Cost Range
<b>Demolition Costs</b>			
Playshed	5,100 sf	\$8 - \$10	\$40,800 - \$51,000
Middle School & Gym	31,000 sf	\$12 - \$15	\$372,000 - \$465,000
			\$412,800 - \$516,000
		Average Cost	\$464,400
		Design Contingency (30%)	\$139,320
		<b>Total Cost of Demolition</b>	<b>\$603,720</b>

<b>Building Costs</b>			
Pool Bldg Renovation w/MEP	16,200 sf	\$200 - \$250	\$3,240,000 - \$4,050,000
Pool Systems (WTI Basic Repairs)			\$1,300,000 - \$1,800,000
	16,200 sf		\$4,540,000 - \$5,850,000
		Average Cost	\$5,195,000
		Design Contingency (30%)	\$1,558,500
		<b>Total Cost of Building</b>	<b>\$6,753,500</b>

<b>Site Costs</b>			
Gravel and Landscape @ Bldg Demo	28,000 sf	\$8 - \$10	\$224,000 - \$280,000
Entry Plaza Renovation	1,000 sf	\$75 - \$100	\$75,000 - \$100,000
			\$299,000 - \$380,000
		Average Cost	\$339,500
		Design Contingency (30%)	\$101,850
		<b>Total Cost of Site</b>	<b>\$441,350</b>

<b>Total Average Const Cost</b>	<b>\$7,798,570</b>
<b>Soft Costs (30%)</b>	<b>\$2,339,571</b>
<b>TOTAL PROJECT COST</b>	<b>\$10,138,141</b>

# SANDY COMMUNITY CENTER RENOVATION CONCEPTUAL COST MODEL - **BUILDING PHASE TWO**

	Area	Cost/SF Range	Cost Range
<b>Building Costs</b>			
Renovate Lockers	4,000 sf	\$200 - \$250	\$800,000 - \$1,000,000
New 2-Story Addition	17,300 sf	\$400 - \$450	\$6,920,000 - \$7,785,000
New Natatorium (Bldg Shell & MEP)	7,400 sf	\$300 - \$350	\$2,220,000 - \$2,590,000
New Recreation Pool			\$2,000,000 - \$2,500,000
	28,700 sf		\$11,940,000 - \$13,875,000
		Average Cost	\$12,907,500
		Design Contingency (30%)	\$3,872,250
		<b>Total Cost of Building</b>	<b>\$16,779,750</b>

<b>Site Costs</b>			
Renovate Existing Parking	29,300 sf	\$10 - \$15	\$293,000 - \$439,500
Entry Plaza	5,000 sf	\$75 - \$100	\$375,000 - \$500,000
Street improvements	200 lf	\$1,000 - \$1,200	\$200,000 - \$240,000
			\$868,000 - \$1,179,500
		Average Cost	\$1,023,750
		Design Contingency (30%)	\$307,125
		<b>Total Cost of Site</b>	<b>\$1,330,875</b>

<b>Total Average Const Cost</b>	<b>\$18,110,625</b>
<b>Soft Costs (30%)</b>	<b>\$5,433,188</b>
<b>TOTAL PROJECT COST</b>	<b>\$23,543,813</b>

# SANDY COMMUNITY CENTER RENOVATION CONCEPTUAL COST MODEL - BUILDING PHASE THREE

	Area	Cost/SF Range	Cost Range
<b>Demolition Costs</b>			
MS bunker Level Two	12,500 sf	\$20 - \$25	\$250,000 - \$312,500
	12,500 sf		\$250,000 - \$312,500
		Average Cost	\$281,250
		Design Contingency (30%)	\$84,375
		<b>Total Cost of Demolition</b>	<b>\$365,625</b>

<b>Building Costs</b>			
Parking on Bunker	12,500 sf	\$100 - \$150	\$1,250,000 - \$1,875,000
New gymnasium	9,800 sf	\$350 - \$400	\$3,430,000 - \$3,920,000
New Running Track in Gym	3,500 sf	\$100 - \$150	\$350,000 - \$525,000
New 2-Story Addition	12,500 sf	\$400 - \$450	\$5,000,000 - \$5,625,000
	38,300 sf		\$10,030,000 - \$11,945,000
		Average Cost	\$10,987,500
		Design Contingency (30%)	\$3,296,250
		<b>Total Cost of Building</b>	<b>\$14,283,750</b>

<b>Site Costs</b>			
Renovate North Parking	15,500 sf	\$15 - \$20	\$232,500 - \$310,000
New Entry Drive to N. Parking	150 lf	\$1,000 - \$1,200	\$150,000 - \$180,000
			\$382,500 - \$490,000
		Average Cost	\$436,250
		Design Contingency (30%)	\$130,875
		<b>Total Cost of Site</b>	<b>\$567,125</b>

<b>Total Average Const Cost</b>	<b>\$15,216,500</b>
<b>Soft Costs (30%)</b>	<b>\$4,564,950</b>
<b>TOTAL PROJECT COST</b>	<b>\$19,781,450</b>

# SANDY COMMUNITY CENTER RENOVATION CONCEPTUAL COST MODEL SUMMARY - PARK

## PARK PHASE ONE

Site Demolition	\$157,600
Site Development	\$2,400,000
<b>Total Const Cost</b>	<b>\$2,557,600</b>
Soft Costs (30%)	\$767,280
<b>TOTAL PROJECT COST</b>	<b>\$3,324,880</b>

### Park Phase One Scope

Parking Area  
Park and play ground including picnic and skate park

## PARK PHASE TWO

Site Demolition	\$146,600
Site Development	\$1,600,000
<b>Total Const Cost</b>	<b>\$1,746,600</b>
Soft Costs (30%)	\$523,980
<b>TOTAL PROJECT COST</b>	<b>\$2,270,580</b>

### Park Phase Two Scope

Site grading modifications and track removal  
Installation of park trails  
Installation of informal play area

## PARK PHASE THREE

Site Demolition	\$123,000
Site Development	\$1,800,000
<b>Total Const Cost</b>	<b>\$1,923,000</b>
Soft Costs (30%)	\$576,900
<b>TOTAL PROJECT COST</b>	<b>\$2,499,900</b>

### Park Phase Three Scope

Installation of Amphitheater and Event Spaces

## PARK PHASE FOUR

Site Demolition	\$29,700
Site Development	\$747,600
<b>Total Const Cost</b>	<b>\$777,300</b>
Soft Costs (30%)	\$233,190
<b>TOTAL PROJECT COST</b>	<b>\$1,010,490</b>

### Park Phase Four Scope

Challenge Course  
Bicycle Pump Track

<b>TOTAL IMPROVEMENT COST</b>	<b>\$9,105,850</b>
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Unescalated Cost - Fall 2018