
Greenwood Memorial Pool

Gardner, Massachusetts

Facility Assessment and Study – FINAL DRAFT FOR REVIEW SUPPLEMENT



Prepared for:

City of Gardner Massachusetts

Prepared by:

Bargmann Hendrie + Archetype, Inc.
Boston, MA

Ballard*King and Associates, Ltd.
Highlands Ranch, C)

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Executive Summary

Background

The planning, feasibility and demonstration of the future potential of the Greenwood Memorial Pool and Bath House was the purpose of this study. This report contains a feasibility assessment and business plan for the facility.

The report focuses on the feasibility of continued operations and sustainability of the pool facility. Evaluation of the ability of the community to support the pool financially is included in the business plan. The feasibility and probable cost of rehabilitating the building as an aquatic center as well as other diverse community uses was studied.

History*

The Greenwood Memorial Pool and Bath House in Gardner have been named one of Massachusetts' "Most Endangered Historic Resources". In the 1910s, Levi Heywood Greenwood, a member of one of Gardner's industrial families, made the decision to build a bathhouse as a gift to the City, and the official opening day was July 6, 1915. At a time when many residents did not have reliable access to indoor water, the pool provided a place to wash. It was also space for community recreation, allowing the city to run year-round swim programs. In addition to providing a maintained and staffed swimming space in the summer, the outdoor pool served as an ice rink in the winter. For years, the pool was used for competitions, and was the practice space for the Gardner High School swim team and home of the private Greenwood Memorial Swim Club.

In 2012 the City made the difficult decision to close the indoor pool due to a lack of funds to maintain the facility, and more significantly, due to an engineering report indicating deteriorating conditions which could potentially be dangerous to staff, occupants and users of the indoor pool. The outdoor pool remains open; in 2015 an outdoor spray park was added to the site.

* History excerpted from City's original RFQ.

Findings

<i>Building Foundation:</i>	The foundations are in serviceable condition. Water infiltration and damaged concrete observed. Foundations can be easily repaired.
<i>Roof Structure:</i>	Repairs and modifications are required to the perimeter walls, roof trusses, and balcony assembly but are serviceable and can support continued use or reuse of the facility.
<i>Building Envelope:</i>	Moisture entering the perimeter walls has caused the majority of damage that is visible on the exterior of the building. Exterior walls require repointing, particularly the lower sections of the wall. As part of a reuse program, particularly as a pool, insulation needs to be introduced on the interior surface of the exterior walls to provide better thermal and moisture (condensation) control.
<i>Roofing:</i>	The existing roofing must be replaced. This work must be performed in conjunction with dormer repairs, wood eave repairs, skylight replacement, decorative copper ventilator repairs/restoration, and structural repairs at the failed section of roof on the northwest corner of the pool space.
<i>Windows and Doors:</i>	The metal windows and glass block glazing require repair in order to provide additional service life. The upper dormer windows must be replaced. Exterior exit doors must be replaced.

<i>Interior Construction:</i>	The locker room work and accessibility upgrades performed in 2006 meet code and can be salvaged and reused as part of a renovation program. As previously noted, the interior balcony requires structural repairs and the main pool space must receive insulation on the exterior walls. The lobby contains unique “character defining” historic features and must be preserved as minor modifications are needed for additional accessibility upgrades and upgrades to the MEP systems.
<i>Vertical Access:</i>	Public use of the second level and pool space balcony requires an elevator or lift to provide access. Once at the second level, additional measures would be needed to provide access to the side offices and balcony. The amount of public space that could be created did not justify the installation of an elevator.
<i>Second Floor Space:</i>	The second floor space above the main lobby provides an ideal location for mechanical equipment, storage, and staff area that would be needed to support a renovated swimming pool or large multi-use space. The second level has access from the main open stair and a narrow service stair that contains many winders. The exposed fire escape at the rear of the building requires repair and reattachment to the building. At least an enclosed fire stair would be needed to provide public access to the second floor.
<i>Building Expansion:</i>	The building sits within 50 feet of Crystal Lake, classified as a great pond, and would require permitting under Chapter 91. Given the proximity to the pond, expansion of the building, including expansion towards the street, are not practical.
<i>Swimming Pool:</i>	The swimming pool could be renovated in its current configuration or easily reconfigures within the existing pool footprint to provide other programming opportunities. The piping between the pool, main drains and filtration system has failed; the pool filtration equipment is not in serviceable condition.
<i>MEP Systems:</i>	The existing heating and ventilation systems have failed and were not adequate for a swimming pool facility. The natatorium lacked proper ventilation and dehumidification. Ventilation of the locker room spaces are through fans directly connected to the exterior with no energy recovery. The basic plumbing to the toilet and showers is serviceable but would require closer inspection because of their lack of use since 2012. The electrical service would need to be upgraded to accommodate the additional load of mechanical equipment. A renovation would require installation of an automatic fire protection (sprinkler) system.

Market Assessment

Ballard*King & Associates (B*K) as a subcontract of BH+A has been hired to determine the future use of Greenwood Pool, located in Gardner, MA. The following is a summary of the demographic characteristics of the City of Gardner and the Primary Service Area.

B*K accesses demographic information from Environmental Systems Research Institute (ESRI) who utilizes 2010 Census data and their demographers for 2016-2021 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.

Service Areas: Greenwood Pool is in the City of Gardner and improvements to the facility will be the responsibility of the City. As such, the City has been identified as the immediate area around the facility. Because of the geographic location of the pool and the population concentration of the City of Gardner a larger Primary Service area of a 20-Minute Drive Time has been identified.

Primary 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.

Demographic Summary

The following summarizes the demographic characteristics of the service areas.

Depending upon the size and scope of the redevelopment of Greenwood Pool it would require more than the population within the City of Gardner to support the facility. The population within the Primary Service Area is adequate, but the presence of alternative service providers must be acknowledged and accounted for.

The median age for the City, Primary Service and State are all higher than the National number. This point to a population with older children and significant retirees. As such any recreation facility, aquatic or non-aquatic, needs to have a multi-generational focus.

The City of Gardner experienced a decrease in population in between the 2000-2010 Census while the Primary Service Area experienced minor growth. These demographic trends points to consistent population, but one that should not expect significant expansion or increase in participation.

The median household income within the City and Primary Service Area could create challenges if the City wants the proposed facility to operate at a breakeven level.

Market Programming Recommendations

It is the opinion of B*K that the City of Gardner has two options as they consider options with the Greenwood Pool location.

1. If the City is obligated to keep the facility as a pool, B*K would recommend the pool be a warm water therapy pool.
2. If the City is not obligated to keep the facility as a pool, B*K would recommend the facility is developed into a multi-purpose gymnasium

Warm Water Therapy Pool

There are a significant number of lap pools and swimming opportunities within the Primary Service Area identified for the study. The bulk of those lap pools keep their water temperature in the low 80s which is beneficial for lap swimming, competitive swimming and some swim lessons. B*K was not able to identify a warm water therapy pool in the service area.

Pool Size & Shape:

- The city should consider a rectangular shaped pool, but not the standard 25Y length.
- Shortening the pool and increasing the deck space should be a priority.
- The pool should have a zero-depth ramp entry to the water with handrails on either side.
- The pool depth should range from 4-5 feet.
- The pool should be equipped with in-water bench seating along the opposite side of the ramp entry of the pool.
- The pool should be equipped with an ADA accessible lift.
- Water temperature should be maintained between 86-88 degrees. Non-Pool Amenities:
- There should be ADA accessible locker rooms in the facility.
- Inclusion of a first aid/lifeguard/aquatics coordinator office would be important.
- Storage for programming equipment. Programming Opportunities:
- Development of a warm-water therapy pool fills a void within the market and creates opportunities to partner with local health care and physical therapy providers.

Such a facility would also create opportunities for individuals with disabilities that benefit from in-water therapy. The City of Gardner has a significant number of older adults and retirees. Introducing warm water exercise classes to this population would be well received. Outside of the adults and retirees the warm water nature of the facility would allow for various levels of swim lessons to take place. Using the American Red Cross program as an example such a facility could address the needs of infant, parent-tot, preschool, level 1 and level 2 programs all of which would appreciate warmer water

Multi-Purpose Gymnasium or Meeting Rooms

The primary service area is experiencing a gymnasium shortage like what B*K has witnessed across the country. As the quantity of programming done by schools increases the availability of gymnasium space for non-school athletics and other programming has decreased. Based upon time on site and conversations with stakeholders the City of Gardner is experiencing a similar shortage. If the City of Gardner is not obligated to the development of a pool, B*K would recommend converting the Greenwood Pool into a multi-purpose gymnasium. The design team recommends the following:

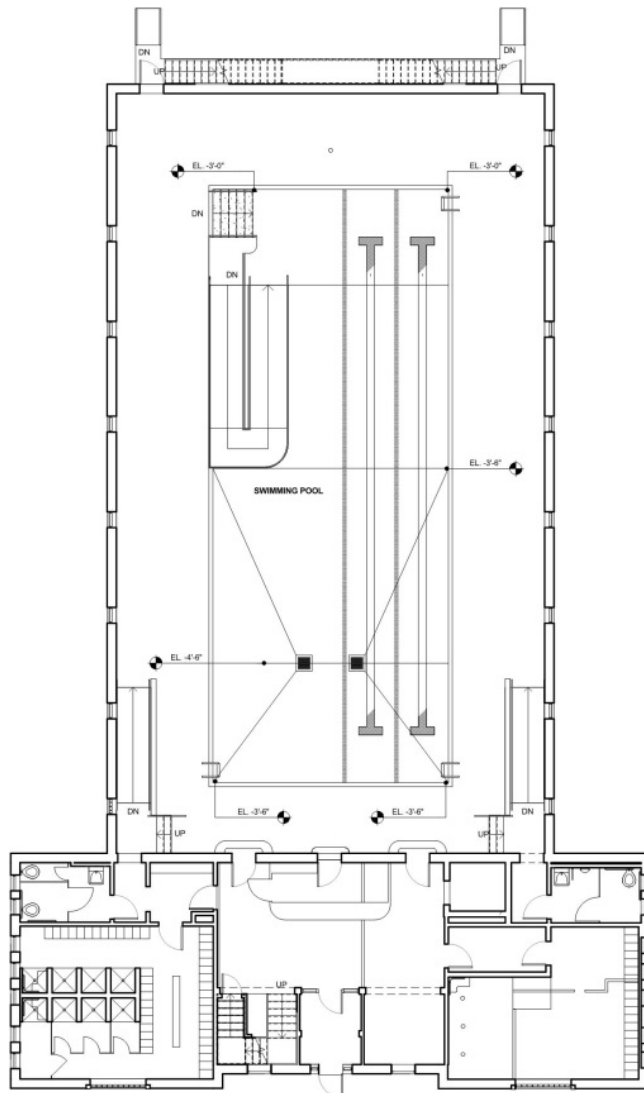
- Maximizing the floor to accommodate as large of a gym floor as possible.
- Mounted basketball hoops that can be raised when not in use.
- Cores for volleyball goals to maximize the programmability of the space.
- A traditional wood basketball floor, but rather a multi-purpose court that could host a variety of activities.

Design Options

Option A: Restore facility to its original use. This option includes the complete the interior and exterior renovation of the building and maintains the existing pool configuration. The option repairs and abandons the balcony above the pool and repairs the second level of the building to accommodate new MEP equipment, storage and service support.

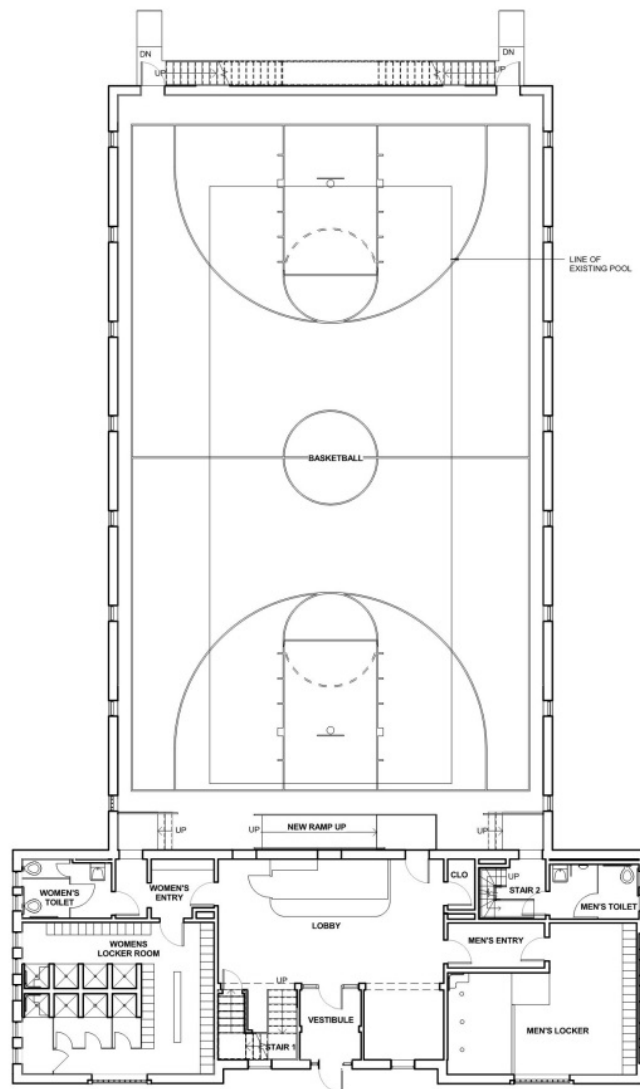
Option B (Ballard*King Option 1): This option will reconfigure the existing pool into a warm water pool that can be used for therapy, water exercise and lap swimming. New gunite will be placed within the existing tank to shallow-up the deep end of the pool and create a ramp and steps.

- Pool will be maximum of 4'-6" at the main drains
- Two lap lanes will be marked along one edge of the pool.
- Lane lines will be removed to provide a large 1,200 SF exercise/therapy area in the pool



Option C (Ballard*King Option 2) In lieu of a pool program, the swimming pool would be filled in and the space would be provided with a multi-use floor surface. The former pool space could be used for basketball, volleyball, Futsol, pickle ball, lecture style seating, banquet seating, and small trade shows

Ventilation and heating unit would be provided without a pool dehumidification function. For summer use as well as banquet and lecture seating, air conditioning should be provided. Equipment to house the mechanical equipment should be located in the upper level of the support building; public access would be limited to the main level. We would maintain toilets and showers for the recreational functions; the toilets would not be sized for large lecture and banquet seating.

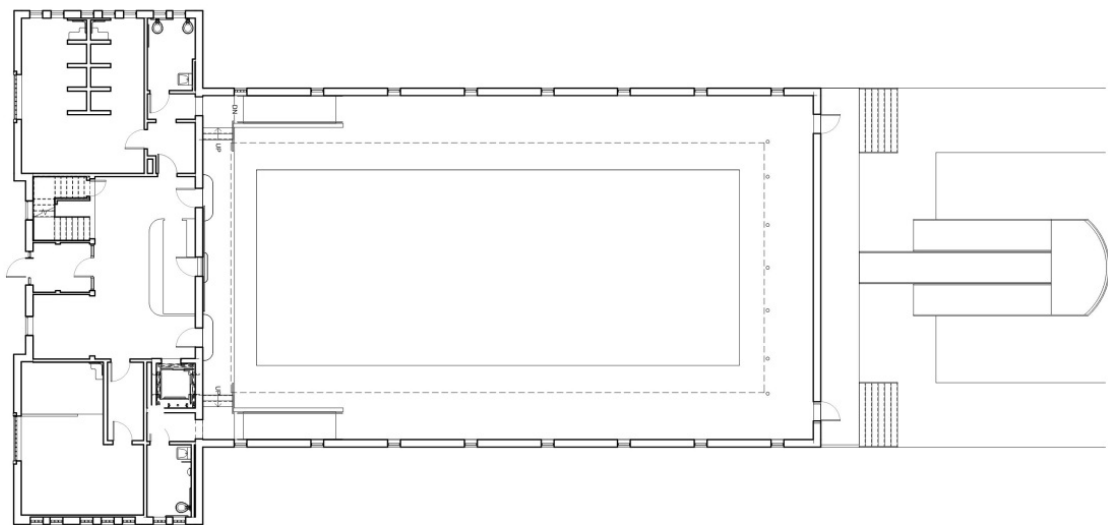


Option D

In lieu of a pool program, the swimming pool would be filled in and the space would be provided with a multi-use floor surface to be used for indoor events during the outdoor pool season. A ramp would be needed to provide accessible access from the building to the outdoor pool

Option D: Maintain Support Building, including lockers and showers and use these facilities to support the outdoor pool. The large multi-use space would be used for summer camps and an indoor gather space for shade, meals, etc. by outdoor pool users.

Option D.1: Maintain only the pool wing and create an outdoor pavilion to be used by the outdoor pool users or general public when the outdoor pool is closed.



Option D.2: Demolish existing pool building and restore to open space. Scope would include capping of all utilities, removal of building, backfill, loam, seeding for a lawn, and possibly landscaping. Pool enclosure fence would need to be extended to maintain pool perimeter security. Illustration of open lawn area not included.

Project Costs

Using the recommendations for maintaining, reconfiguring the pool, or reusing the building as a multi-use space, we have developed some order of magnitude estimates based on current projects and unit prices from the winter of 2017-18. We assume that the work would be publicly bid.

Baseline

Scope includes a major renovation of the building envelope and MEP services and renovation of the swimming pool to maintain the original use of the pool.

This work would be in the range of **\$4,720,000**

Pool Reconfiguration

Scope includes a major renovation of the building envelope and MEP services and renovation of the swimming pool to provide a shallow warm water therapy, exercise pool.

This work would be in the range of **\$5,046,497**

Multi-Use Reconfiguration

Scope includes a major renovation of the building envelope and MEP services and reuse of the pool space as multi-use recreational space.

This work would be in the range of **\$4,022,000**

Demolish Building and Restore to Open Space

Scope includes removal of the pool structure, hazardous material removal, backfilling to grade, loam and seed, new fencing to enclosure pool.

This work would be in the range of **\$620,244**

Total Project Costs

Total project cost must be included for all three approaches. Total project costs include Architectural/Engineering fees, expenses, and testing.

A/E Fees

Based on the value of construction, budgets for design and engineering fees, OPM fees, etc.

Baseline	\$5,252,000
Pool Reconfiguration	\$5,597,000
Multi-use Space	\$4,529,000
Demolish Building and Restore Site	\$710,744

Operational Plan

As part of their overall contract, Ballard*King & Associates (B*K) has developed an operational plan for Greenwood Pool Re-Development. The side-by-side analysis looks at the cost of continuing to operate the facility as a pool v. the cost to operate the facility as a gymnasium or large gathering space.

Assumptions: With the development of the operational plan, there have been some assumptions made, which include:

- The market will not drastically change over the next 3-5 years.
- As a pool the focus will be on warmer water, to accommodate programming and some lap swimming.
- The facility will operate year around, to include when the adjacent outdoor pool is open.
- The staffing structure is reflective of other models B*K has observed and focuses on having a managerial level position on-site almost 100% of the time.
- The lifeguard staffing plan assumes that if the pool is open and occupied, by anyone, that there is a lifeguard on-duty and on-stand.
- The fee structure for programs and admissions is consistent with the area.
- The hours of operation are comparable to other facilities.

Schedule: Schedules for both a pool and multi-purpose program were developed and included in the full report.

Pool: The schedule is relatively focused and does not have significant overlap of activities, which is to say there are not multiple things going on in the pool at the same time. It is also important to note that the schedule has outlined a 50-week operation, which accounts for a 2-week shut down during the year

Multi-Purpose Use: The success of the gymnasium operation hinges on a successful summer camp program and after school program. It is also important to note that the schedule has outlined a 50-week operation, which accounts for a 2-week shut down during the year

Pool Revenue/Expense Comparison:

Year #1	
Expenses	449,524
Revenues	212,926
Difference	(236,598)
Cost Recovery Percentage	47%

The following provides a 5-year comparison for the operation of the Greenwood Pool and is based upon the best information available at the time the report was completed. It is important to note that the operational expenses are anticipated to increase at a rate of 3% per year over this 5-year span. It is also important to note that this 5-year span projects a 5% increase in revenues from year 1-2 and year 2-3 with a 3% increase in year 3-4 and a 1% increase in year 4-5.

Category	Year 1	Year 2	Year 3	Year 4	Year 5
Expenses	449,524	463,009	476,900	491,207	505,943
Revenues	212,926	223,572	234,750	241,793	244,211
Difference	(236,598)	(239,438)	(242,149)	(249,414)	(261,732)
Recovery %	47%	48%	49%	49%	48%

Gym Revenue/Expense Comparison:

Year #1	
Expenses	389,232
Revenues	312,278
Difference	(76,955)
Cost Recovery Percentage	80%

The following provides a 5-year comparison for the operation of the Greenwood Pool as a gymnasium based facility and is based upon the best information available at the time the report was completed. It is important to note that the operational expenses are anticipated to increase at a rate of 3% per year over this 5-year span. It is also important to note that this 5-year span projects a 5% increase in revenues from year 1-2 and year 2-3 with a 3% increase in year 3-4 and a 1% increase in year 4-5.

Category	Year 1	Year 2	Year 3	Year 4	Year 5
Expenses	389,232	400,909	412,937	425,325	438,084
Revenues	312,278	327,891	344,286	354,615	358,161
Difference	(76,955)	(73,018)	(68,651)	(70,710)	(79,924)
Recovery %	80%	82%	83%	83%	82%

Design Options

Option A- Restore to Original Use Scope of Work

This option will restore the existing pool into working condition with no change in program or use.

Demolition	Selective Demolition of the following: Mechanical, plumbing, electrical, pool filtration equipment Roofing Skylight Assembly (salvage and resell corrugate wire glass_ Aluminum Windows Dormer windows and siding Rear exit doors Interior acoustic tile ceiling Existing tile at lower level pool walls Bench seating at balcony (salvage and repurpose or sell)
Basement	The ground water visible in the basement must be controlled and eliminated to make this level viable for use as mechanical space, filtration room, and pool piping access within the below deck crawl space. Provide pumps, waterproofing and measure to control ground water. Provide mud slab over stone fill at crawl space
Concrete	Repair concrete foundation walls, rebuild profile at watertable and provide coating.
Masonry	Removal and rebuilding of exterior damaged clay brick masonry, provide flashing at brick projections and over concrete foundation. Cleaning of all clay brick masonry and repointing of 20% of the elevations. Provide new glass block units to replace damaged units and infill where fans have ben removed
Steel	Abrasively clean existing steel roof trusses and recoat with epoxy based high performance coating. Replace existing steel columns at west end of pool Provide seismic clips at truss wall connections. Provide stainless steel hardware at connections to masonry and wood framed balcony structure.
Wood and Plastic	Restore/rebuild exterior wood trim at roof, entry and dormers Restore/rebuild balcony wood framing Modify entry desk to accommodate individuals with disabilities. Repair and replace damaged wood roof decking

Repair and replace damaged wood framing and partitions and basement level spaces.

**Thermal and Moisture
Protection**

Provide spray applied insulation to the underside of pool area and support building roof spaces.

Provide rigid board insulation at exterior walls of swimming pool space including wall between the pool and support building.

Provide rigid board insulation to the exterior of pool walls in crawl space and underside of pool deck

Provide waterproofing (interior applied) waterproofing to basement walls.

Apply thermal insulation at exposed surfaces of support building spaces

Provide continuous self-adhered underlayment with architectural asphalt shingles on pool and support building roof.

Provide new sealants and backer rods at all new windows and doors.

Openings

Provide new framed metal skylight assembly above swimming pool. Skylight shall be aluminum with a factory applied coating and insulated glass. Glass shall be having a translucent inner surface and a laminated bottom layer as required by the Department of Public Health.

Provide new exterior fiberglass door and frame at the west egress doors from the pool area.

Provide new insulated fiberglass windows at pool area and dormers

Assume repair and upgrades to existing doors

Provide new door hardware for new and existing repaired doors

Finishes

Provide new metal framing to repair existing partitions.

Provide zee shaped furring at exterior walls of pool area to attach the rigid board insulation and new finishes.

Provide GWB (gypsum wallboard) at upper level of pool area

Provide glass mat or cement board at pool level to provide a substrate for new tile.

Repair damaged plaster or GWB in support building

Repair and re-grout all pool deck and pool tank tile

Provide new moisture resistant, surfaced, clean-room type, acoustic tile ceiling in locker rooms.

Provide new tile as required to upgrade mechanical and electrical systems in support building.

Provide new high performance, epoxy based coatings in pool area and locker rooms. Provide new paint at all existing surfaces, interior and exterior.

Specialties

Provide new MAAB and ADA complaint room signage.

Provide new fire extinguishers and cabinets to meet current code requirements

Provide new toilet and shower accessories to replace damaged or missing units

Special Construction Pool

Filtration: Filters: Complete Neptune Benson Defender filtration and recirculation systems including, existing formed in place gutter with tile finish, balance tank, all piping and automatic chemical controls. Complete chemical treatment system that includes, but is not limited to, the following:

1. Automated backwashing control.
2. Strainer baskets
3. Recirculation pumps for pool
4. Flow meters
5. Gages
6. Filters
7. Valves
8. Sight glasses
9. All interconnecting piping for equipment within the filtration room
10. Backwash holding tanks
11. Control Panels
12. Sensors and Probes

Automatic water level controls and water fill devices.

Operation/Maintenance Manuals of all equipment and systems. Manuals shall include proper start-up and shutdown procedures.

Operating Diagram: Framed and mounted diagram of filter system operation and backwash procedures. Furnish and install numbered, equipment plates, valve tags and pipe labels to correspond to instructions.

Maintenance: Startup and Shut down Service and instruction to the Owner's operating personnel shall be given upon completion of the Project.

Pool Deck Equipment

Ladders shall be heavy duty and cross-braced. Provide number of steps as indicated and to accommodate depth at locations shown. Stainless steel pipe shall have a 0.109-inch wall thickness. Ladder Width shall be 24 inches.

Starting Platforms: KDI Paragon Paraflyte with 24' wide by 20" deep platforms. Platforms shall be designed for use with semi-recessed gutter. Deck to water level distance shall be 7-5/8". Platform height above water to be maximum 30". Provide 6 platforms each with (2) anchors.

Pool Bonding

Furnish all labor, materials, and equipment necessary to complete all work as shown on drawings and specified. This work is to include but not limited to the following: testing and furnishing as required and install common pool bonding grid, wire and bonding to swimming pool and all pool equipment.

1. All work shall conform to the NFPA National Electrical Code and all Federal, State and Local Codes and Utility Company Regulations as applicable.
2. NEC Article 680 *Swimming Pools, Fountains, and Similar Installations* applies to this work.
3. All products shall be UL listed.

Plumbing

Provide new toilet and shower facilities required to replace damaged fixtures and accommodate renovations. All fixtures to be handicapped accessible, low flow water conserving type, faucets to be certified lead free.

Waste and vent services shall be extended from the existing sanitary system.

Domestic water shall be extended from the existing building service.

Domestic makeup water and backflow device to be provided to the pool equipment.

Interior hose will be provided for deck wash down.

HVAC

It is assumed that the pool water will be maintained at ± 82 degrees F and the indoor pool space at 84 degrees F. The estimated ventilation requirement based the existing space is approximately 3,000 cfm

A new heat recovery type dehumidification unit will be provided for the indoor pool and located in the second level of the support building. The unit will be selected for 12,000 cfm and 30 tons of cooling. Air distribution will be introduced with floor grilles in the balcony located at the exterior wall. Return air will be ducted to both floor return and ceiling return registers. Duct distribution will be installed buried below the pool deck.

Dehumidification unit will be located in the upper storage room, the air cooled condenser will be ground mounted outside.

The dehumidification unit shall include reheat for space dehumidification and heat recovery for pool water heating. Heat recovery pool water heating will be interfaced with the condensing oil fired boiler.

A separate 5 ton split system will be provided for the aerobics room. This unit will also be located in the storage room and its air cooled condenser outside. This unit will have a hot water coil and DX cooling.

Bathrooms and equipment areas will be heated with panel type hot water radiation. Panel type radiation will also be provided at high windows and dormers.

Electrical

The existing building electrical service shall be upgraded

Power from the electrical service will be extended to a branch panel in the main and upper levels of the building and branch panel in the pool area.

The pool deck area will be provided with decorative pendant fixtures, vapor tight and installed to access lamp replacement from the pool deck. Similar to SPI Echo Round light fixture shown below.



Fire alarm will be provided thorough out the building.. Pull stations will be provided at exit door, horn/strobe notification devices will be provided to comply with ADA requirements.

Telephone/data/security systems will be provided upon the owner's specified requirements

Option B- New Warm Water Therapy Pool Scope of Work

This option will reconfigure the existing pool into a warm water pool that can be used for therapy, water exercise and lap swimming.

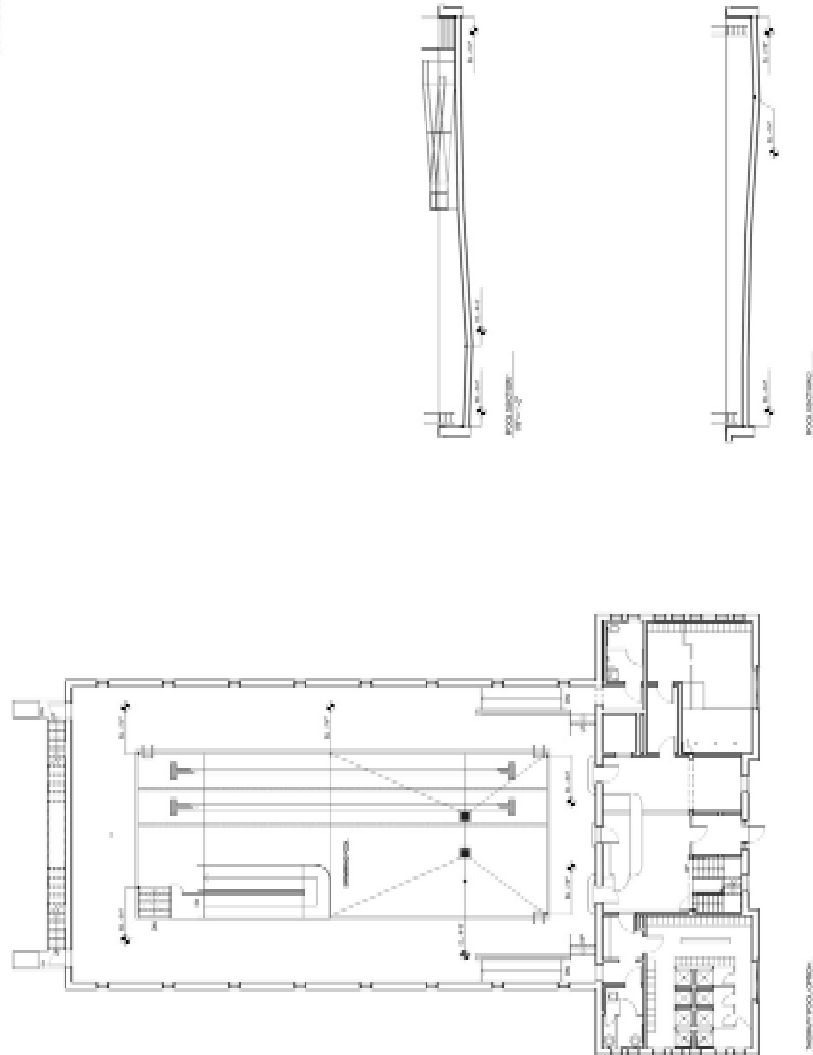
New gunite will be placed within the existing tank to shallow-up the deep end of the pool and create a ramp and steps.

- Pool will be maximum of 4'-6' at the main drains
- Two lap lanes will be marked along one edge of the pool.
- Lane lines will be removed to provide a large 1,200 SF exercise/therapy area in the pool

Remainder of baseline scopes remains the same.

City of Gardner
 66 Pleasant Street, Gardner, MA
 Contact Number: 978-792-1314

Greenwood Memorial Pool



bh+a | Barrington Henshaw Architects, Inc. | 8 Commercial Center Drive, Suite 200 | Boston, Massachusetts 02110 | Tel: (617) 333-3450, Fax: (617) 333-3451

Warm Water Lap and Therapy Pool

Option C- Multi-use Multi-sport space Scope of Work

In lieu of a pool program, the swimming pool would be filled in and the space would be provided with a multi-use floor surface. The former pool space could be used for

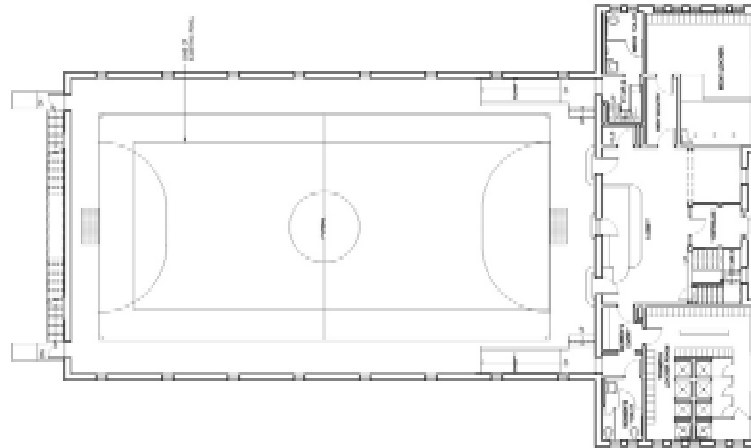
- Basketball
- Volleyball
- Futsol
- Pickle Ball
- Lecture style seating
- Banquet seating
- Small Trade Shows

A ventilation and heating unit would be provided without a pool dehumidification function. For summer use as well as banquet and lecture seating, air conditioning should be provided.

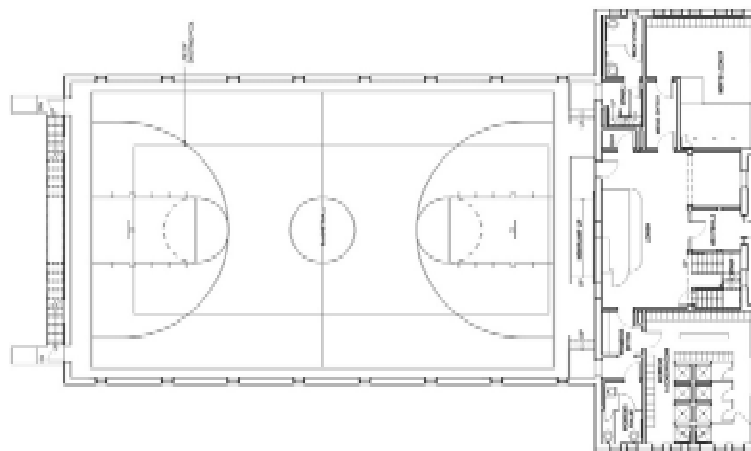
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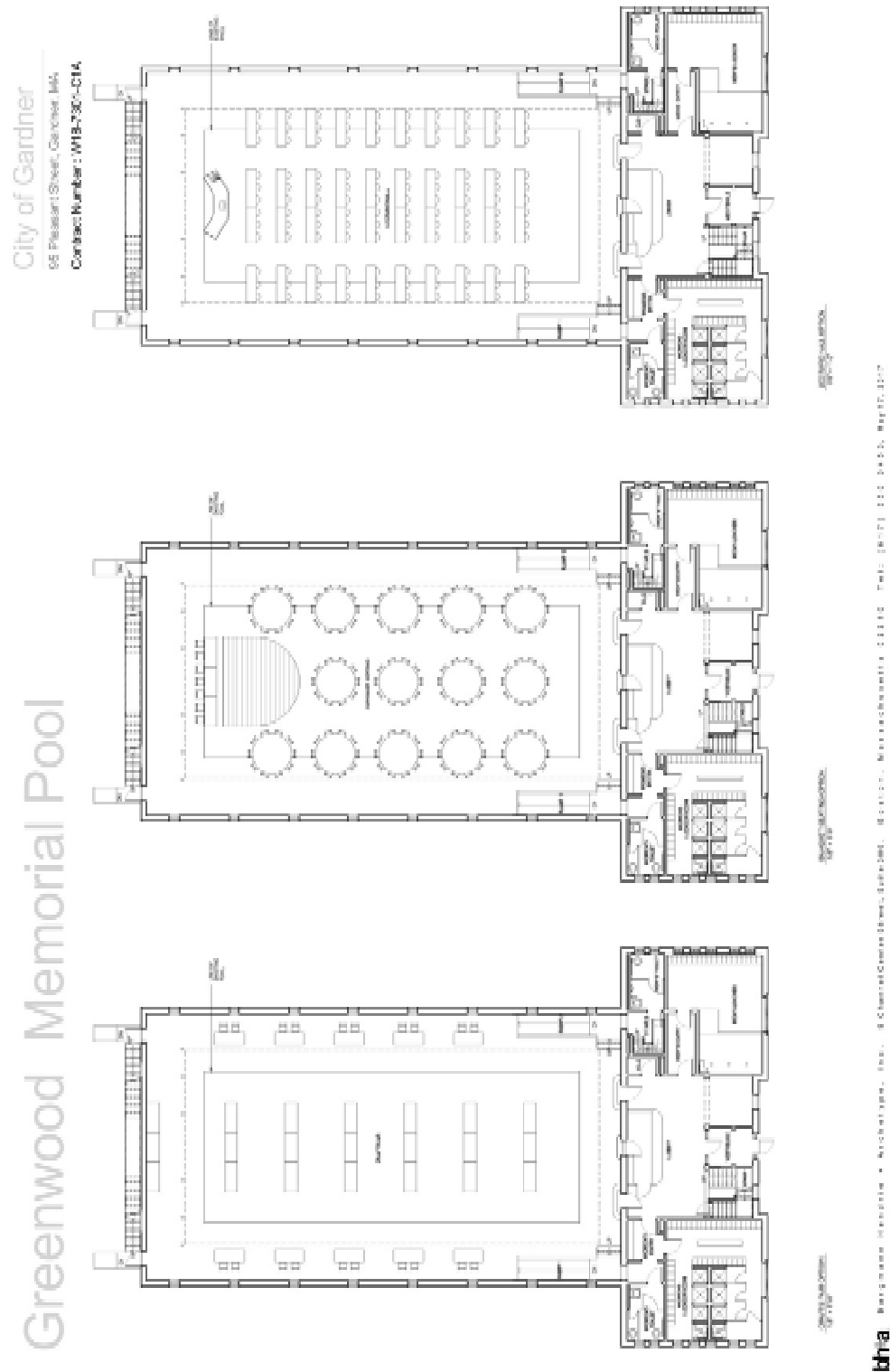
Architectural
 Floor Plan
 Pool and Bathhouse



Architectural
 Floor Plan
 Pool and Bathhouse

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Basketball and Volleyball



Banquet Seating, Lecture and Trade Show Usage

Option D, D.1 and D2- Support for Outdoor Pool Scope of Work

In lieu of a pool program, the swimming pool would be filled in and the space would be provided with a multi-use floor surface to be used for indoor events during the outdoor pool season. A ramp would be needed to provide accessible access from the building to the outdoor pool

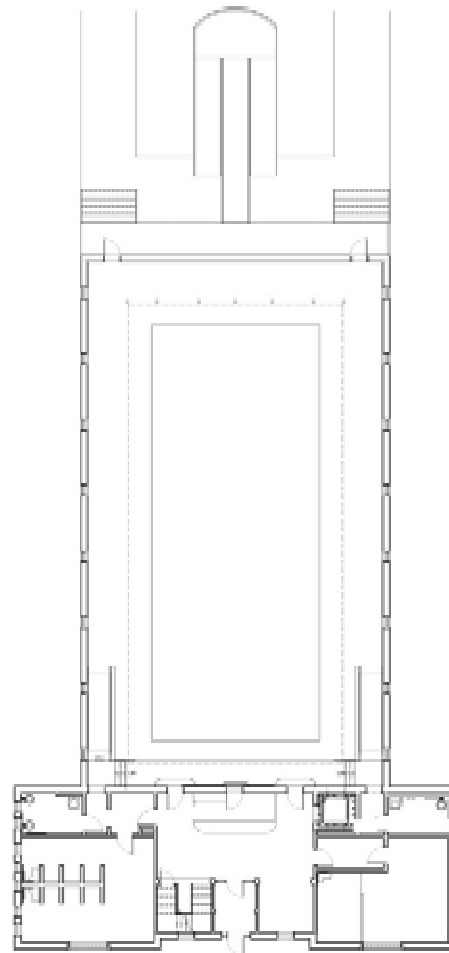
Option D: Maintain Support Building, including lockers and showers and use these facilities to support the outdoor pool. The large multi-use space would be used for summer camps and an indoor gather space for shade, meals, etc. by outdoor pool users.

Option D.1: Maintain only the pool wing and create an outdoor pavilion to be used by the outdoor pool users or general public when the outdoor pool is closed.

Option D.2: *Demolish existing pool building and restore to open space. Scope would include capping of all utilities, removal of building, backfill, loam, seeding for a lawn, and possibly landscaping. Pool enclosure fence would need to be extended to maintain pool perimeter security. Illustration of open lawn area not included.*

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Greenwood Memorial Pool

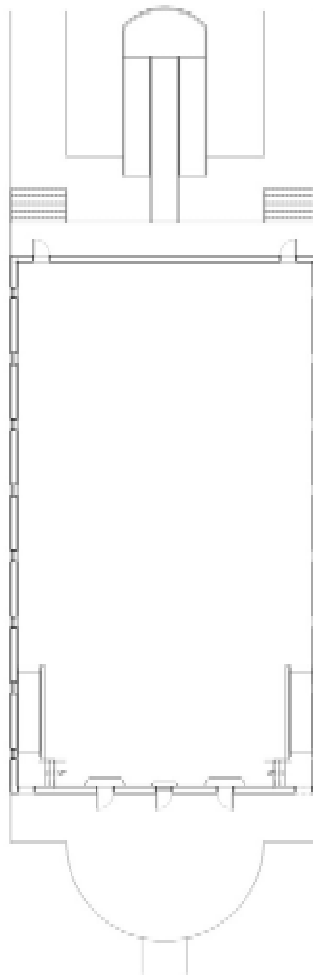


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Option D: Multi-use space and toilets for outdoor pool

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bh+a | Building + Architecture, Inc. | 10 Commercial Center Street, Suite 200 | Boston, Massachusetts 02110 | Tel: (617) 552-3450, Fax: (617) 552-3450

Option D.1- Open Pavilion for Outdoor Pool or Public Use

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Estimates of Probable Construction Costs

Using the recommendations for maintaining, reconfiguring the pool , or reusing the building as a multi-use space, we have developed some order of magnitude estimates based on current projects and unit prices from the winter of 2017-18. We assume that the work would be publicly bid.

Baseline

Scope includes a major renovation of the building envelope and MEP services and renovation of the swimming pool to maintain the original use of the pool.

This work would be in the range of **\$4,720,000**

Pool Reconfiguration

Scope includes a major renovation of the building envelope and MEP services and renovation of the swimming pool to provide a shallow warm water therapy, exercise pool.

This work would be in the range of **\$5,046,497**

Multi-Use Reconfiguration

Scope includes a major renovation of the building envelope and MEP services and reuse of the pool space as multi-use recreational space.

This work would be in the range of **\$4,022,000**

Demolish Building and Restore to Open Space

Scope includes removal of the pool structure, hazardous material removal, backfilling to grade, loam and seed, new fencing to enclosure pool.

This work would be in the range of **\$620,244**

Total Project Costs

Total project cost must be included for all three approaches. Total project costs include Architectural/Engineering fees, expenses, and testing.

A/E Fees

Based on the value of construction, budgets for design and engineering fees ,OPM fees, etc.

Baseline	\$5,252,000
Pool Reconfiguration	\$5,597,000
Multi-use Space	\$4,529,000
Demolish Building and Restore Site	\$710,744

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Demolish Pool Building

ESTIMATE OF PROBABLE CONSTRUCTION COSTS

SITEWORK

Demolish Building

Hazardous Material Abatement	1 allow	\$110,000.00	\$110,000
Cap and Make Safe Utilities	1 allow	\$20,000.00	\$20,000
Remove Building Complete	360,000 cf	\$0.65	\$234,000
Miscellaneous Site Demo	1 ls	\$25,000.00	\$25,000
Fill at existing footprint	2,600 cy	\$25.00	\$65,000
Import and Spread Topsoil	330 cy	\$9.00	\$2,970
Seed Lawn area	12,000 sf	\$0.19	\$2,280
New Fence	150 lf	\$30.00	\$4,500
New Fence Gates	2 ea	\$750.00	\$1,500
Seed Lawn area	12,000 sf	\$0.19	\$2,280
			\$467,530

Subtotal	\$467,530
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Division 1 @ 4%	\$18,701
General Conditions @8%	\$37,402
Overhead & Profit @ 3%	\$15,709
Contingency @ 15%	\$80,901

ESTIMATE TOTAL	\$620,244
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Facility Assessment and Study for Greenwood Memorial Pool and Bathhouse

DEMOLISH EXISTING POOL STRUCTURE

\$620,244

ITEM #	DESCRIPTION	UNIT	QUANTITY	UNIT COST	EXTENSION	SUBTOTALS
Construction						
1.0	Construction Costs (Total Estimated Cost of Construction, today's \$)					\$620,244
Architect/Engineers						
2.0	Architect Basic Services					\$30,000
	Current Contract Amount	LS	1	\$0	\$0	
	Adjusted Contract Amount to New Construction Value	LS	1	\$375,000	\$375,000	
2.1	A/E Additional Services					\$7,500
	Hazmat Consultant	LS	1	\$7,500	\$7,500	
	LEED [®] process for PD/SD/DD/CD/CA	LS	1	\$0	\$0	
	LEED [®] Energy Modeling	LS	1	\$0	\$0	
	Professional Cost Estimate (In base fee)	LS	1	\$0	\$0	
2.3	Architect Reimbursables					\$500
	General Expenses Adjusted to Construction Value	LS	1	\$0	\$0	
	Pre-Qualification	LS	1	\$0	\$0	
	Bid Document Printing	LS	1	\$500	\$500	
	Bid Advertisements	LS	1		\$0	
FF&E and Technology						
4.0	Design FF&E	LS	1	\$0	\$0	\$0
4.1	FF&E					\$50,000
	Kitchen & Vending Equipment	LS	1	\$0	\$50,000	
	Fitness Equipment	LS	1	\$0	\$0	
	All other FF&E	LS	1	\$0	\$0	
4.2	Design Technology	LS	1	\$0	\$0	\$0
4.3	Technology	LS	1	\$0	\$0	\$0
Support Services						
5.0	Structural Peer Review	LS	1	\$0	\$0	\$0
5.1	Materials Testing Services					\$2,500
	Concrete, Steel, etc.	LS	1	\$0	\$0	
	Environmental Monitoring	LS	1	\$2,500	\$2,500	
5.2	Geotechnical Services, etc.					\$0
	Soils Report/Borings	LS	1	\$0	\$0	
	Water Flow/Pressure Test	LS	1	\$0	\$0	
5.3	Surveying	LS	1	\$0	\$0	\$0
5.4	Moving	allow	1		\$0	\$0
5.5	LEED [®] Commissioning (fundamental)	LS	1	\$0	\$0	\$0
Administrative						
6.0	Permits	allow	1	\$0	\$0	\$0
6.1	Bond Underwriting	LS	1	\$0	\$0	\$0
6.2	Insurance and Legal					\$0
	Legal Fees	LS	1	\$0	\$0	
	Builders Risk Insurance (Included by GC)	LS	1	\$0	\$0	
6.3	Utility Company Charges	allow	1		\$0	\$0
6.4	Administrative Costs	allow	1		\$0	\$0
6.5	Clerk-of-the-Works	allow	1		\$0	\$0

TOTAL ESTIMATED PROJECT COST (TODAY'S \$)

\$710,744

FLOOR AREA: 17,500 SF
COST PER SQUARE FOOT: \$40.61 /SF

Assumes 10% Estimating Contingency and 5% Construction Contingency