Master Plan Consulting Services for

Westwood Hills Nature Center

May 23, 2016

Submitted by:
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ARCHITECTURE
Master Plan

For

Westwood Hills Nature Center
St Louis Park, Minnesota

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May 23, 2016
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EXECUTIVE SUMMARY

APPRAOCH

The Westwood Hills Nature Center (WHNC) has been a treasured gem within the City of St. Louis Park since it was acquired in 1959. This 160 acre park has tremendous potential to enhance nature and recreational programming for the community, but is currently limited by the size, poor conditions, and site facilities of the existing building. Recognizing this potential, the city determined the need for this Master Plan.

Successful community spaces must continue to serve the changing needs of the public and, as such, future planning and improvements for the current WHNC are needed. The purpose of this Master Plan is to:

- Review the current facility both the building and site to provide recommended changes and improvements.
- Evaluate programming and develop a plan for future recreational and educational needs.
- Understand and reflect the need of the community and identify the vision and path for future development.

The Master Plan reviewed programmatic and functional needs as well as existing conditions of the site and buildings. Through assessment of the nature center, it was determined that the Interpretation Center building is too small and not sustainable and the maintenance is determined to not be cost effective.
**EXECUTIVE SUMMARY**

**PROCESS**

In practice, Westwood Hills models and promotes stewardship, sustainability, and a deeper ecological understanding through direct experience, using our resources to provide connecting places and enhance quality of life in the community.

This Master Plan was completed using a collaborative approach that focused the creativity of the team and community on a shared strategic vision that outlines how the facility should function, how the facility should and does engage and fit within the community, and how the facility maintains a legacy for future generations.

The material presented in this Master Plan is based on: visual inspections, a review of existing site and facility conditions, field verifications and oral or written comments from an online website open throughout the process, community events and two onsite stakeholder input meetings/workshops open to the public.

Recommended improvements include: access, wayfinding, parking, outdoor program space, interpretive features, building upgrades and other appropriate improvements.
### Facility Timeline

**1930** Land used as a fox farm and public golf course

**1957** Carl L. Gardner and Associates investigate the feasibility of the city acquiring all or portions of the Westwood Golf Course as an addition to the city’s park and recreation facilities

**1959** The City of St Louis Park acquires 90 acres from the golf course (Robert McNulty) for public park use

**1960’s** The City of St Louis Park acquires additional land through federal, state, and city grants. Land used as a day camp

**1970** Feasibility study for Westwood Hills Environmental Interpretive Center is prepared by Brauer & Associates

**1971** A citizen’s advisory committee is formed by the St Louis Park City Council to help plan the Westwood Hills Interpretive Center

**1975** The St Louis Park City Council establishes a Westwood Hills advisory committee

**1978** Building prospectus for Westwood Hills Environmental Education Center created

**1979** Project manual developed for the construction of Westwood Hills Environmental Education Center designed by Smiley Glotter Associates; City Council approves motion to accept construction bids for the building

**1981** Nature Center building occupied by staff

**1991** Westwood Hills Nature Center celebrates its 10th anniversary; Sunrise Rotary deck built; new trail signs installed

**2011** Westwood Hills Nature Center Celebrates its 30th anniversary
EXISTING PROGRAM AND FACILITY REVIEW

EXISTING PROGRAMMING

CASUAL USE
The emphasis of the WHNC is to welcome visitors to enjoy and engage in the natural beauty of the site. Casual use of the site is available from the main park entrance during open trail hours – posted as dawn to dusk. Many individuals use the park for recreational walks throughout the day. The trail system includes a 5 miles loop around the 60 acre Westwood Lake that takes visitors through marsh areas surrounding the lake on boardwalks, and at grade trails along the water’s edge. Trail spurs also extend into wooded and prairie habitats of the site.

Other casual use tends to be focused at the playground structure, natural play area and climbing formations west of the parking area. The natural play area which is formed of natural elements includes all kinds of areas to explore and is one of the more popular use areas. Accessible public comfort facilities and an enclosed rental facility are located in the adjacent building. Picnic tables for casual use are also located dispersed within this area.

PROGRAMMED USE
WHNC has an ongoing and long term relationship with St Louis Park Community Education Program and School District. Programmed activities, either scheduled through school outing/field trip programs or classes offered by the center to the public, invite thousands of nature loving participants each year. Programs focus on activities available for all ages from preschool to seniors. Programming at the WHNC is planned around all the unique features it has to offer.
Some of the current planned programs and camps include:

**Programming focused on unique natural site features available at WHNC:**
- Pollywogs Preschool Camp – utilizing senses to delve into the woods, marsh and prairie
- Nature for the Very Young: Peer into the Pond
- Evening Canoeing for Adults
- Watershed

**...and built features**
- Puppet Story Time: Buggin Out or Don’t Bee Afraid – shows given from the puppet stage
- Honeybees and Beekeeping

**...and seasonal changes**
- Nature for the Very Young: April Showers
- Maple Syrup
- Spring photography
- Chickadee Carpentry
- Winter Ecology

**...and all things natural – some in captivity, some not**
- Dragons of the Sky
- Critters Close Up
- Life Under a Log
- Everything grows
EXISTING BUILDING CONDITION

INTERPRETIVE CENTER - EXTERIOR
The WHNC is in poor to fair condition related to the overall condition of materials based on their age and original integrity. The original exterior design utilized a simple palette of materials consisting of rock faced concrete block, standing seam metal panels and painted wood paneling or siding.

- The concrete block and metal panels are in fair condition with some impact damage in isolated areas.
- The painted wood siding is a style commonly known as T11 and a typical building material for this period of construction. This material is in poor condition with some paint and wood fiber damage where material has come in contact with grade and/or water. The use of this material in the construction industry has diminished due to quality and vulnerability to deterioration.
- The construction of the exterior walls are simple concrete block construction with no insulation or vapor barrier. While a typical detail for the time of construction, it is not an energy efficient building.

The main entrance approach is a nondescript opening in the concrete block wall facing north. This is not an ideal or welcoming entrance point. Additionally, safety elements for the staff should be incorporated, as it is impossible to see people entering the building. Once through this opening there is a single glass and prefinished aluminum entrance door visible to the east or a projecting vestibule and entrance to the north. There is no
The projecting glass vestibule opens into the interior shared use space that can conflict with programming and building access control.

The back or eastern portion of the building is mostly below grade and is adjacent to a trail. There is a perennial problem of water infiltration into the building at this location. The north end of the building is where the overnight areas for the resident birds are located. These are constructed of wood paneling with mesh or screen opening.

The west elevation faces the water garden and is comprised of standing seam metal fascia from the roof edge to approximately 8’ above grade. Below the metal fascia is wood paneling with prefinished aluminum windows and a glass entrance vestibule. At the north end of the west elevation is a service entrance for staff. This entrance is covered on the interior with blinds as this door opens directly into the support and storage area.

The existing roof membrane is in poor condition with some seasonal leaking occurring.
EXISTING PROGRAM AND FACILITY REVIEW

INTERPRETIVE CENTER – INTERIOR
The Interpretive Center Building is a 2,700 square foot municipal facility that is undersized to meet the current demands of the staff and programming. Due to the overall scale and layout of the building, it is carefully scheduled to accommodate the variety of programmatic and functional needs served throughout any given day. Programming is often altered based on how many the building can fit or when there are no other scheduled activities, rather than what is needed or desired for the community. This limits the extent and flexibility of the programming offered.

Overall the current building includes; a reception area with private office, a small gathering space with an operable vinyl dividing wall and a counter with cabinets and sink at the far end, a corridor leads to the buildings toilet facilities, an office area serving staff, and minimal program support and prep areas. The small gathering space is used for student orientation, puppet shows, animal observation, and everything else that the center wishes to do. When the wall is closed to divide the room, there is the opportunity for the physical division of people and activities but acoustically there is minimal separation making concurrent use difficult. Closing the wall also short circuits the air circulation of the building’s mechanical system, negatively impacting the temperature in both spaces.

The exterior entry vestibule at the center of the building opens directly into the gathering space, and can cause conflicts for ongoing events. Another conflict to the use of the space is the care and tending of the program animals. All care activities occur within the space and typically require the corridor to be blocked.

Another concern for staff is that they are separated by having two locations; one at the front of the building and one at the rear. There is one single window offering daylight for the staff areas at the rear of the building and the layout allows no prep, collaborative, storage, or organizational space. The prep area for the program animals’ food is combined with other storage and is in close proximity to the staff area. All of these functions occur in what was intended as the buildings exit corridor.

The mechanical system and units based on their age are beyond their anticipated useful life. The original bel...
grade slab air distribution system raises concerns regarding air quality, as well as the integrity of the ductwork.

**INTERPRETIVE CENTER**

Summary of Exterior/Interior Building Deficiencies Findings:

- Overall building condition is poor
- Overall building size is too small for current use
- Water infiltration at backside of building is ongoing concern for building integrity and interior condition of space
- Leaking roof is a concern for material condition and air quality within space
- Energy inefficient building
- Entrance is not welcoming and staff cannot see who is entering front desk area
- Multiple sets of doors on west side of building confuse wayfinding
- Location of building farther away from parking lot than desired for small children, the elderly, or physically challenged
- The location of building means visitor trail access and vehicle access is on same paved trail, causing safety conflicts between visitor and vehicle traffic
- Building condition and material quality is poor and lacks the long-term durability of a building that represents the legacy and character of this site
- Building is not large enough to provide necessary programmatic function for visitors, students or staff
- Energy performance and comfort of building is poor
- Building provides inadequate storm shelter
- Mechanical system is inadequate and includes below grade duct work which cannot be maintained
- This is the only large municipal building in St Louis Park that is not equipped with a fire suppression system
EXISTING PROGRAM AND FACILITY REVIEW

INTERPRETIVE CENTER - cont.

Reuse or continued use of building would require:
Complete renovation of all finishes and systems for continued use including:

- Removal and replacement of roof including addition of insulation to meet energy code. May require modification at roof edge at metal fascia to conceal height of insulation
- Removal and replacement of damaged wood paneling
- Modification to south entrance to make more appealing approach and improve safety
- Removal and replacement of windows to a thermally broken system
- Excavation, installation of drain tile and waterproofing at east elevation to correct water infiltration
- Correct approach to building to provide accessible route from parking and trails
- Upgrade all finishes
- Add additional windows in spaces without or with minimal natural light
- Add approximately 9,000 SF addition to accommodate programmatic needs including: classroom space, code compliant toilet rooms, storage, staff support and animal food prep area
- Replace mechanical systems including complete removal of below slab ventilation system and addition of new ceiling mounted distribution system
- Upgrade all lighting
- Install sprinkler and upgrade alarm system

Due to the number of deficiencies and poor conditions of existing building, reusing the building is not a wise investment.
APIARY

The apiary is a single room used for beekeeping education and seasonal storage when no longer programmed during the year. The exterior is of the same painted T11 wood paneling that is used on the nature center. There is some visible deterioration and damage of the paneling due to birds, insects and moisture. The roof is a low slope asphalt shingle in fair condition. Due to the low slope the life expectancy of the asphalt is slightly lessened. Based on the appearance it is within 8 – 10 years of replacement.

Summary of Deficiencies - Findings:
- Building material condition and original construction integrity is poor
- Building does serve its intended use but could use some interior improvements including; platforms for viewing, carpet replacement and electrical upgrades in both service and lighting
- Location of building could allow it to be used for other activities related to the pond. Impact to bees would need to be considered

Reuse or continued use of building would require:
- Maintenance and upgrades based on correcting deficiencies above.

PLAYGOUND/MAINTENANCE BUILDING

This structure was recently built to provide a rental opportunity, accessible public convenience facilities and maintenance storage adjacent to the play area and parking. Building was reviewed only as a component within the park that adds to programmatic support. Building currently is used by Nature Center staff as a covered support space for programming in inclimate weather. Overall, the building meets its intended purpose.

Summary of Deficiencies - Findings:
- Recent construction - no deficiencies to note

Reuse or continued use of building would require:
- Ongoing maintenance as required to maintain current condition
OVERLOOK DECK
The overlook deck is a raised wood structure with supporting posts, metal rod and wood rail with a split shed roof. The lookout is in good condition. It was originally designed and built as a destination to experience both the lake and the man made water feature and garden. There is furniture that sits under the roof structure for casual seating but limits the use of the feature for larger groups. The overall size and experience does not invite many to use on a regular basis.

Summary of Deficiencies - Findings:
- Building material condition and original construction integrity is good
- Programmatically it could be improved to allow better accommodation for group use. In particular, the seating that is available for casual, individual use is in the way when a group uses the space.

Reuse or continued use of building would require:
- Possible addition towards lake to create separate classroom or individual use areas
STORAGE SHED
The storage shed is comprised of three areas: one area is enclosed by walls and a gable roof served by a single aluminum man door, another area is enclosed with walls and a shed roof accessed by plywood hinged double doors and the final area is a fenced exterior storage yard. All three areas are simple wood structures that are in poor condition. Condition or existence of structural footings is unknown. The gable roofed portion has a plywood floor presumably over grade. The pitched roof end of the building and the fenced in area have dirt floors. Overall condition of the structure is poor and is not ideal for intended programmatic needs.

Summary of Deficiencies - Findings:
- Building material condition and original construction integrity is poor
- Building does not provide necessary programmatic function for dry and rodent proof storage
- Location makes the storage building one of first structures to be seen by visitors upon arrival and forces visitors to walk on the same paved trail as service vehicles going back and forth to the storage shed

Reuse or continued use of building would require:
- Removal is recommended.
WESTWOOD HILLS ACCESS

The nature center's central location within the west metro area provides convenient access for many local schools and area residents to explore an intimate natural resource environment which offers interaction with a wide variety of water, vegetation, and wildlife resources. While there are many attractive features and amenities that make the nature center a highly valued facility for the city and its residents, opportunities exist to plan for new improvements which can better meet the needs of all nature center user groups.

The main public vehicular access for the nature center is located on the south side of the property along West Franklin Avenue. Efforts should be made to reorganize some of the landscape and sign elements along the street edge to improve visibility of the entrance and create a better sense of arrival for visitors.

Surrounding private property, steep topography and wetlands limit other public access opportunities for the site. Several nature center spur trails also connect to residential neighborhoods on the east and west sides of the property. Pedestrian access to the nature center building is approximately four hundred feet from the existing parking lot which presents some difficulties for physically challenged visitors and seniors to walk to the building because of steep trail gradients. Identifying alternative trail alignments or providing better proximity between the building and parking lot should be evaluated as part of future improvements to be implemented at the nature center.

Some consideration should be given to adding a second small canoe launch area on the south side of the lake to allow for more convenient access to the lake from the nature center and visitor entrance.

Summary of Deficiencies-Findings:
- Lack of signage or visual cues to direct pedestrians or vehicles and to indicate entrance
- Orientation/condition

Reuse or continued use of site requires:
- Upgrade signage within the community and at main entrance
- Improve organization of landscape and other visual cues to demarcate entrance
EXISTING PROGRAM AND FACILITY REVIEW

TRAIL ACCESS
The existing pedestrian trail and boardwalk system provides access to most areas of the property and several overlooks allow visitors the opportunity to get close to the shoreline of Westwood Lake.

Summary of Deficiencies-Findings:
- Physical separation or distance from amenities and topography of trails limit access to some features

Reuse or continued use of site requires:
- Relocation of features and upgrades to trails and access to allow physical access for all

PARKING
With increased programming and larger events being hosted at the nature center, the existing parking lot and drop off area are not large enough to meet the demand for general public parking and school user groups. To prevent the need for parking in adjacent residential streets, opportunities exist to expand parking capacity south of the current parking lot where there would be minimal impacts on existing vegetation and nature center amenities. Reconfiguration of the parking area will also allow for surrounding walk circulation to be improved to avoid conflicts between vehicular and pedestrian traffic.

Summary of Deficiencies-Findings:
- Current configuration does not meet current or any proposed future needs of site
- Access of vehicles and pedestrians can be in conflict with current configuration

Reuse or continued use of site requires:
- Expansion and reconfiguration of parking is required for current and future needs
- Allow overflow parking, detailed in natural materials, so that it is experienced as natural open space when not being used for vehicles
- Reconfigure trail and walk access within and adjoining parking areas
TOPOGRAPHY AND DRAINAGE
Steep topography and natural drainage ways throughout the property minimize the potential for expanding trail systems and adding new amenities at the nature center. Consideration for any new trail, site, or building improvement should strive to integrate sustainable design solutions to ensure storm water runoff is treated onsite, and grading and vegetation impacts are minimized to protect the sensitive natural resource environment of the park.

Summary of Deficiencies-Findings:
- Natural site features, specifically changes in elevation, make trail access and erosion an ongoing concern

Reuse or continued use of site requires:
- Expand looped trail circulation around the perimeter of an expanded water garden area within the current nature center building footprint.
- Integrate best proactive storm water management

NATURAL RESOURCES
A wide variety of natural resources exist throughout the nature center including lake, pond, and marsh water resources, maple basswood and pine forests, and upland prairie located on the southeast corner of the property. With a natural resource management plan in place, efforts should continue for eliminating invasive plant material to improve the overall quality of vegetation and wildlife habitat in the park. Consideration should also be given to expanding natural resource interpretive opportunities throughout the park.

Summary of Deficiencies-Findings:
- Outdoor educational components could be expanded to include more interpretive signage along trail systems

Reuse or continued use of site requires:
- Create facility that can support expanded programming
TRENDS
The designers of successful space that serves the public must continually challenge the ability of space to be flexible, convenient and easily maintained. The design for a nature center increases this need by adding activities that include animals and mud.

The trends in design for these facilities must push the boundaries of both physical and operational design and management. Modern design for these facilities is also asked to respond to continually changing social trends and demographics. The increased awareness of the health benefits of nature have caused our society to realize that the flip side of not addressing this benefit is a generation of people with a nature deficit disorder. The long term impact being, not just to an individual, but to the overall environment, as an adolescent’s concern for the world around them has declined.

Expanding programming or creating programming that increases an interest in gardening, foraging and beekeeping, to name a few, all play a major role in reigniting a concern for the environment for both youth and older generations. Addressing sustainable practices and conservation awareness allows members of the community to learn these values early in life and to become lifelong learners. Having a nature center that provides a wide range of learning gives it the stability to be and remain at the center of a communities focus.

Being a center that can be flexible and offer a variety of nature based recreation opportunities also increases its use and viability. This emphasis can relate to small measures like expanding use and variety of trails to creating demonstrations and interactive learning opportunities. Opportunities that create memorable experiences.
COMMUNITY INPUT

Based on an understanding of the existing conditions and conversations with the community and staff, it is very apparent that the (WHNC) does a number of things wonderfully. The WHNC also has a number of challenges. The programming, energy, and creativity of the staff often make up for the challenges of the building and space.

The main emphasis and focus of the community comments that were gathered online, during the Halloween party, and during the first community meeting, is that WHNC is great as it is. Change very little unless change is required to allow WHNC to function and continue to offer the great programming it always has.

Many of these sentiments are not new to the center or program. Some of the original programming work that was completed prior to the construction of the 1981 building identified a number of needs that still remain today. The existing building does provide a space for staff and a space to gather but does not provide room to truly realize the WHNC’s full potential.

A number of the program aspects outlined during the early planning for the original 1981 WHNC area all sentiments that align and resonate with the information received and discussed with the community, city, and staff. These program aspects include:

- Support full range of environmental programs
- Reflect concern of awareness for natural environment
- Meet challenges of seasonal needs for curriculum
- Flexible and adaptable design to meet variable situations
- Nature is the focal point of the site—not building
- Building should complement site and blend into surroundings
- Function is to support programs
- Design should express need to conserve and utilize various forms of energy available
- Ease of maintenance
- Configuration of rooms should create feeling of openness and intimacy with the outdoors
- Minimize visual and audio distractions

This original vision for the center’s main focus is still valid today. It demonstrates how the center has been steadfast in its goals. It also demonstrates that there is a parallel to the issues identified by staff and the community today and that a number of the issues and goals remain unsatisfied. The challenges of the existing building make the full realization of these aspects very difficult. The limited space and inability to divide the space both physically and acoustically limits the ability to achieve
many of the center’s goals. Programming is often altered based on how many the building can fit or schedules are based on when no other activity is scheduled onsite rather than what is needed or desired for the community.

Based on the deficiencies, needs, and how the site is currently configured, the design team looked at a number of options. These options included expanding the existing building footprint at the current location or providing a new facility at numerous locations on the property. A presentation of the options was made to city staff. Based on city staff input, a preliminary recommendation to relocate the main building to the south was presented during the second community meeting.

At the meeting, the design team discussed the facility’s needs and offered images and diagrams of how a new facility could be designed and situated on the site and to determine peoples’ reaction to a number of varying facility types. Removing the existing building allows expanded programming to occur adjacent to the water feature and garden. Bringing the facility building further to the south also allows parking to remain relatively in the same location. This keeps the impact of the construction on the site to a contained area and allows the many other natural features of the center to remain untouched.

Those attending felt that the ideal building would fit into the larger natural context of the site and would disappear. Images of grass roofs and open window walls for viewing were preferred over more utilitarian structures. Planned outdoor space was discussed and opportunities for development of alternative gathering areas within the building were reviewed but overall the comments reflected on what the facility needs to do in order to perform and maintain the great feel and function of it currently offers.

Energy efficiency and sustainable practices were seen as opportunities and necessities. Alternative energy and best practice for thermal performance were noted. These goals were also reinforced at the city level and future design should strive to meet the criteria of net zero.

Similar nature center facilities either just completed or in planning, confirm the vision and necessary physical changes needed at the WHNC. Eastman Nature Center just recently completed a new building and determined that in order to adequately provide the space and facility they need, the new building needed to be just under 12,000 SF. Many of these facilities include ample staff space for quiet work, activity preparation, and storage. Two to three classrooms, sized to accommodate 50 students is very typical. Varied types of gathering from small groups to areas that can hold mid-sized events are designed into the overall layout.
**Recommended Layout and Program-Site**

**Build a New Nature Center Building**

The reorganization of some outdoor spaces and amenities at the nature center will allow for more activities and functions to be better accommodated and expanded where necessary to meet current programming needs. The following recommendations have been identified to be addressed as part of future improvements to be made at the nature center.

**Trail Circulation and Wayfinding**

With a desire to retain as much existing trail circulation as possible, some minor trail realignments and connections will be needed to accommodate the new building location and expanded water garden area where the current building is located. The more centralized location for the proposed new building should also provide the opportunity to establish a more visible trailhead which can orient and direct visitors to other destinations at the nature center.
Additional Parking
In order to meet the demand for additional parking at the nature center, the parking lot has been reconfigured and expanded farther to the south to accommodate additional spaces and a more expansive drop off area to meet the needs of school bus groups and summer camp activities. Sustainable design strategies for incorporating permeable paving, storm water infiltration basins and security lighting should all be incorporated into redesign of the parking lot.
Expanded Outdoor Classroom Area and Water Garden
Based on the need to be able to accommodate larger groups of visitors and allow for more programming opportunities, an expanded outdoor classroom and water garden area is proposed where the current nature center building is located. This will allow for a wider variety of activities and events to be hosted at the nature center in a large dedicated outdoor gathering space to be used by school children and adult groups.
Expanded Natural Play and Outdoor Education Area
Opportunities should be explored for expanding natural play features to complement the existing structured play equipment and climbing boulders which are a popular destination for local neighborhood residents. New types of natural play to be introduced could include water play, boulder climbing embankments, and an adventure trail which could offer creative mobility challenges for children. Other considerations for enhancing educational components to this area of the nature center could include expanding participatory garden areas and developing outdoor exhibit and workspaces to support nature center programming.
Improved Canoe/Kayak Launch
The current location of the existing canoe/kayak launch area is challenging to access for nature center staff and user groups and does not offer nearby conveniences like toilet facilities, drinking water, and seating areas. Options should be considered for installing vault toilets and other amenities at this location.
INTERPRETIVE CENTER BUILDING – PROGRAM FOR NEW CONSTRUCTION

The programmatic needs for interior space outlines a building around 12,000 SF. This is similar to the space requirements outlined for the original 1980 program and still remains the requirement today. This area was also reviewed in comparison to a number of other nature centers and is very comparative to the functions and needs accommodated.

<table>
<thead>
<tr>
<th>Current</th>
<th>Proposed 2016 Needs - Future Building Design</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entry</strong></td>
<td><strong>Entrance</strong> 600 SF</td>
</tr>
<tr>
<td>Recessed feeling-uninviting.</td>
<td>Area sets overall character and tone for the building and center experience. Welcoming. Point of control and orientation. Possible point of sale for retail.</td>
</tr>
<tr>
<td><strong>Offices</strong></td>
<td><strong>Combined office/staff area</strong> 1600 SF</td>
</tr>
<tr>
<td>Manager’s Office: Isolated at front of building.</td>
<td>Large open office with flexible work stations and collaboration areas. Direct connection to entrance. Proximity to educational areas. Access to support, storage areas and exterior. Break area is included within space. Views out to site and to spaces within building.</td>
</tr>
<tr>
<td>Naturalist’s Office: 8 staff members share small office with minimal natural lighting and no views.</td>
<td></td>
</tr>
<tr>
<td>Intern work space: No assigned area-prep, storage, and support are located in what was originally designed as an exit corridor.</td>
<td></td>
</tr>
<tr>
<td>Secretarial: Open counter that controls one door of building but has no connection to building or site.</td>
<td></td>
</tr>
<tr>
<td><strong>Workshop</strong></td>
<td><strong>Support/Storage</strong> 1400 SF</td>
</tr>
<tr>
<td>Some activities occur in staff corridor.</td>
<td>Space designed to include shelves and bins for storage and would include work area that is separated to control dust. Provide with ample light and ventilation.</td>
</tr>
<tr>
<td><strong>Reading Resource Area</strong></td>
<td><strong>Rest/Relax</strong> 600 SF</td>
</tr>
<tr>
<td>Resources are on shelf in corridor within the staff area.</td>
<td>Quiet area with views for bird watching. Furnished with comfortable furniture for individual use or casual gathering. Some storage for reading materials.</td>
</tr>
<tr>
<td><strong>Exhibit Area</strong></td>
<td><strong>Main Auditorium</strong></td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>Multi-purpose area</td>
<td>Display/Animals 800 SF</td>
</tr>
<tr>
<td>Transition area between gathering space and classrooms. Animal display and education. Animal habitats would back against animal care support space so that cage cleaning and feeding can occur from support area and not public area. Area would include refrigeration and sink for storage and prep. Oversized mop sink would be provided for cage cleaning.</td>
<td>Space for interactive display and play. Display area could include teaching tool for how the physical building powered by alternative energy sources is performing. Space becomes point of engagement and orientation for activities within building and those that expand out into the site. Access to all areas of the building flow through this space. Views and natural light are fundamental to making the building part of the overall environment.</td>
</tr>
<tr>
<td>Main Auditorium</td>
<td></td>
</tr>
<tr>
<td>Multi-purpose room-combined with exhibit area</td>
<td>Gathering/Exhibit 1200 SF</td>
</tr>
<tr>
<td>Art/Education Area</td>
<td></td>
</tr>
<tr>
<td>No defined area</td>
<td>Multi-Purpose Rooms 1-2 2000 SF</td>
</tr>
<tr>
<td>Multi-Purpose Classroom</td>
<td></td>
</tr>
<tr>
<td>Combined with exhibit area</td>
<td>Multi-Purpose Room 3 1000 SF</td>
</tr>
<tr>
<td>Kitchen Area/Serving</td>
<td></td>
</tr>
<tr>
<td>Small area is provided in corridor by staff area and separate counter area with multi-purpose room is provided</td>
<td>Serving 700 SF</td>
</tr>
<tr>
<td></td>
<td>Is it not intended or recommended to provide a kitchen but the building will be able to accommodate catering. Within the loading and service area space will be designed and identified for food service with appropriate power, ventilation, and plumbing.</td>
</tr>
<tr>
<td>Area</td>
<td>-space</td>
</tr>
<tr>
<td>-------------</td>
<td>-------</td>
</tr>
<tr>
<td>Restrooms</td>
<td>600 SF</td>
</tr>
<tr>
<td>Mechanical</td>
<td>800 SF</td>
</tr>
</tbody>
</table>

**TOTAL** 12,000 SF
NEXT STEPS

There are multiple phases to designing a project before it is constructed. These phases are as follows:

1. Feasibility Study/Master Plan (current step)
2. Schematic Design
3. Design Development
4. Construction Documents

This report compiled information that is at a master planning phase. The next steps would be review of the provided program and progression to a Schematic Design level. Following the Schematic Design phase process to Design Development.

During Design Development, the design team works closely with the owner group to finalize the design, i.e. room layouts. This is also the time to determine if the work will be completed in phases, and what those phases will be. During this phase, interior finishes should be reviewed and it is also standard to engage the services of a construction estimator to review costs and present an updated cost estimate to ensure the project is still on budget, and if not, determine what changes can be made.

After all of the design decisions have been made, it is customary to move into the Construction Documents phase. This is when all of the small details are worked out and construction documents are generated for contractors to work from.

After the design phases are complete, the architect should be engaged to provide assistance with Construction Administration which includes:

a. The bidding phase, i.e. contractor selection.
b. Attend construction meetings.
c. Prepare observation reports for tracking construction progress.
d. Respond to contractor's requests for information, changes, and review payment applications.
e. Conduct final site observation punch list.
OPINION OF PROBABLE COST

Each cost is individually calculated to include construction general conditions (permits, construction equipment rental, etc.), and escalation at midpoint of construction. All costs are provided in May 2016 dollars. Cost includes an allowance for building FFE (furniture, fixture, equipment allowance) but does not include other Owner costs, also known as soft costs. Design fees can represent between 9% and 12% of the overall construction fee dependent on number of required consultants*. Design fees are not included in the design costs outlined below. The scope of this project would include at a minimum the following consultants: Architect, Civil Engineer, Landscape Architect, Structural Engineer, Mechanical and Electrical Engineer. Other disciplines that could be included on the team are: acoustical designer, lighting designer, energy modeling (if not included in mechanical engineer’s scope), systems programmer (if interactive energy program exhibit is desired), exhibit designer and animal specialist.

A 25% design and construction contingency is standard for programming. This contingency is included in the numbers listed below. As decisions are made throughout the design process and the project moves closer to the completion of construction documents, new estimates should be prepared and contingencies can be lowered. However, it is recommended that owners maintain approximately 10% for contingency during construction for unforeseen conditions.

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Building Construction</td>
<td>$8,820,000</td>
</tr>
<tr>
<td>New building construction (building envelope, finishes and systems, utilities, net zero)</td>
<td></td>
</tr>
<tr>
<td>Exhibits – public art/interactive displays</td>
<td></td>
</tr>
<tr>
<td>Landscaping – perimeter of building</td>
<td></td>
</tr>
<tr>
<td>Demolition of existing nature center</td>
<td></td>
</tr>
<tr>
<td>FFE (furniture, fixture, equipment allowance)</td>
<td></td>
</tr>
<tr>
<td>Parking Lot Expansion</td>
<td>$580,000</td>
</tr>
<tr>
<td>Parking lot and drop off area (assume 100 spaces)</td>
<td></td>
</tr>
<tr>
<td>Lighting</td>
<td></td>
</tr>
<tr>
<td>Permeable paving parking bays</td>
<td></td>
</tr>
<tr>
<td>Expanded Outdoor Classroom and Water Garden Area</td>
<td>$450,000</td>
</tr>
<tr>
<td>Outdoor classroom</td>
<td></td>
</tr>
<tr>
<td>Expanded upper pond and garden area</td>
<td></td>
</tr>
<tr>
<td>Upper pond bridge crossing</td>
<td></td>
</tr>
<tr>
<td>Garden and outdoor classroom trail circulation</td>
<td></td>
</tr>
<tr>
<td>Lawn staging areas</td>
<td></td>
</tr>
<tr>
<td>Hillside trail and overlooks</td>
<td></td>
</tr>
<tr>
<td>Boulder outfall stream and lower pond</td>
<td></td>
</tr>
<tr>
<td>Lawn staging areas</td>
<td></td>
</tr>
<tr>
<td>Stream boardwalk crossing</td>
<td></td>
</tr>
<tr>
<td>Lower trail boardwalk crossing</td>
<td></td>
</tr>
<tr>
<td>Turtle pond</td>
<td></td>
</tr>
</tbody>
</table>
**Expanded Natural Play and Programming Area**
- Boulder scramble
- Water play and stream and pond
- Log balance
- Adventure trail
- Outdoor exhibit/classroom area
- Butterfly garden
- Vegetable garden plots
- Expanded lawn/picnic area space
- Interpretation/wayfinding signage

**Canoe/Kayak Launch Improvements**
- Toilets
- Drinking water

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expanded Natural Play and Programming Area</td>
<td>$100,000</td>
</tr>
<tr>
<td>Boulder scramble</td>
<td></td>
</tr>
<tr>
<td>Water play and stream and pond</td>
<td></td>
</tr>
<tr>
<td>Log balance</td>
<td></td>
</tr>
<tr>
<td>Adventure trail</td>
<td></td>
</tr>
<tr>
<td>Outdoor exhibit/classroom area</td>
<td></td>
</tr>
<tr>
<td>Butterfly garden</td>
<td></td>
</tr>
<tr>
<td>Vegetable garden plots</td>
<td></td>
</tr>
<tr>
<td>Expanded lawn/picnic area space</td>
<td></td>
</tr>
<tr>
<td>Interpretation/wayfinding signage</td>
<td></td>
</tr>
<tr>
<td>Canoe/Kayak Launch Improvements</td>
<td>$52,000</td>
</tr>
<tr>
<td>Toilets</td>
<td></td>
</tr>
<tr>
<td>Drinking water</td>
<td></td>
</tr>
</tbody>
</table>

Subtotal $10,002,000  
Design Fees (12%)* $1,200,000  

**PROJECT GRAND TOTAL** $11,202,000
The Westwood Hills Nature Center has been a treasured gem within the City of St. Louis Park since it was first acquired in 1959. After completing the master plan study we find ourselves with exciting possibilities to expand the programming and facility opportunities. A new interpretive center will create an improved gathering space for quality of life in the community. Recommendations within this plan address the current demand and future needs of drop in visitors, program participants and people seeking solitude, simultaneously.

For nearly 60 years the city has been on a path of preservation, education and creating community gathering space and with the possibilities in this plan Westwood Hills Nature Center is poised to move forward for the community to enjoy many more years in the future.