ROBINSON NATURE CENTER
INTENT AND DESIGN CRITERIA

(11/07/06)

GENERAL COMMENTS

- In that the intent of Anne Robinson was to conserve and educate, the entire 18-acre site shall comprise the Robinson Nature Center. It will consist of a nature center building that is designed in harmony with the site. The building shall contain educational exhibits and displays of environmental and historical content, classrooms, auditorium, planetarium and various other facilities normally associated with nature centers. These will augment and enhance the conservation concepts illustrated inside the nature center building. The remainder of the site will provide the outdoor educational component. In developing the design, we intend to be cognizant of building footprint, profile and rooflines, creating a low impact facility that enhances and improves the natural setting of the Robinson property; functions well; and reduces or eliminates the negative environmental impacts of the project.
- There are very interesting and unique aspects on this site that can be employed to enhance this project. The Department wants to utilize to our advantage, those unique site aspects, to create a facility that connects people with nature. The Department of Recreation and Parks, Natural Resource Division has researched and visited numerous Nature Centers over the last several years. Of all the nature centers visited, the Battle Creek Cypress Swamp Nature Center in Calvert County, Maryland possesses many qualities that may be appropriate for the Robinson Nature Center. We want the Robinson Nature Center to be simple, understated and unpretentious. A facility that will set an example of how a nature center and the surrounding site can compliment each other.
- The County wants a facility that makes the visitor feel welcome when they arrive, provides a rewarding and enjoyable educational experience, and a desire to return in the near future.
- "Green Building" (LEED) technology is to be employed in the design and construction of this facility. There is a high knoll on the former Robinson property, facing west at an elevation of 334 ft. This site overlooks the stream valley and provides a great view. One possible approach is to situate the building so that it takes advantage of the existing contours, to incorporate the building into the hillside, creating a two-story building with a main entrance at ground level at the front, with a lower level that also has ground level access at the rear. This will minimize the footprint of the building, reduce the impact to the site, and provide additional "Green Building" (LEED) credits. LEED certification will be part of the building criteria and many of the LEED components will themselves become part of the educational components of this facility.
- Employ the use of quality windows and doors, quality roofing material and maximum insulation to save energy.

- Use recycled or recyclable building materials when and wherever possible.
- Incorporate large wrap-around decks to be spacious and inviting. The decks could be used as a sleeping platform for overnight youth programs. The underside of the deck should have a roof so that in periods of inclement weather, participants in outdoor sessions can be moved under deck to continue their program.
- On the slope at the side and/or rear of building, the consultant should consider the creation of a "natural" streambed. This can be constructed of stone or gunnite with the appearance of a natural stream, minimum 50-70 feet in length. Recycled rainwater should be utilized as the water source for this feature and water flow can be derived from a re-circulating pump with an automatic water level control device.
- When designing floors, walls, fixtures, etc., serviceability and durability must be foremost so as to minimize maintenance costs. Flooring must be durable to withstand heavy traffic, provide for easy cleaning and provide a safe, slip-resistant surface. Also, we would like to see a variety of surfaces/treatments to direct visitors and provide a subtle delineation of different areas/uses.
- Ample windows are desired to make the site an extension of the building so that even when you are indoors, you get the feeling of being outdoors.
- Acoustics are extremely important throughout this facility; a relatively low reverberation level will be required.
- Situate the receptionist's desk so as to provide a clear line of sight from office to parking area and trail head. Video cameras and monitors are to be used to augment security.

SITE

- The Robinson Nature Center site consists of 18 acres plus the 6.1 acres of adjacent Middle Patuxent Environmental Area (MPEA) property that lies between the Robinson property and the river. This provides a total of 24 +/- acres for interpretive programming in the immediate area plus the 1,000 acres of the MPEA proper.
- Entrance drive should follow existing contours or at least minimize impact on the site.
- The Department of Recreation and Parks strongly urges the use of bio-retention/rain garden technology in the design of the overall Storm Water Management (SWM) system.
- The adjacent historic Simpsonville Mill should be interpreted through exhibits and Nature Center programs. Specific attention should be given to the millrace, which is on MPEA property and the old mill ruins, which are adjacent to our property. We have entered into discussions with the State archeologists and the State is very interested in working with us on the historic component of this project.

- The design consultant should limit cut and fill as much as possible, as well as limit the importation/exportation of soil.
- One or two shelters should be included for program activities and picnicking, and to provide cover during inclement weather.
- Howard County Recreation and Parks staff will help determine pathway and trail placement to compliment the interpretation of natural and historic features.
- There will be two types of trails: a paved pathway that meets ADA requirements and a natural surface trail that traverses some of the more rugged areas found on the site.
- Provide ample gathering areas (with benches) at the trailheads to allow for school groups and other large parties to gather for orientation, prior to starting a tour.
- Restrooms located close to parking and group gathering areas should be considered, or at a minimum part of the Nature Center, and accessible if the Nature Center is closed.
- Provide shading of parking areas where practical and make planting areas large enough to accommodate groups of mature, large canopy trees.
- The design of the interpretive trails, gardens, etc., should promote intrigue, serenity and communion with the natural beauty of the site.
- Amphitheater to be located on a hillside and large enough to accommodate approximately 40 to 50 people.

PARKING

- Parking lot(s) must be designed so as to minimize impact on the site.
- Must allow for smooth flow of pedestrians and vehicles.
- Surface of parking and roadways should be of a pervious nature if possible to reduce runoff and to demonstrate the benefits of this technology.
- Must provide for bus parking / turnaround.
- If possible, provide a drop-off loop.
- Use bio-retention for storm water management in island areas similar to High Ridge Park if site conditions allow.
- Provide lighting only to the extent needed for safety; avoid light spill and glare.
- Bus and overflow parking may be best accomplished using the lower portion of the site (the site of the old Robinson house, garage and barn). This would allow for fairly generous overflow parking while minimizing the impact to the Nature Center site.
- Place bicycle racks at appropriate locations.

WALKWAY (Entrance)

- Decorative but durable with brick or cobblestone (stamped concrete?) but depth of pattern is important for safety and snow removal reasons.
- Wide and inviting.

- Benches on either side near entrance doors.
- Kiosk with map of site and various other information.

BUILDING:

ENTRANCE

- Clearly marked but subdued and unpretentious.
- Porch/patio gathering area with canopy/overhang and one or two benches.
- Air-lock entrance system, i.e. double doors, foyer and second set of double doors to minimize drafts and air exchange with outside. These sets of doors however must be spaced far enough apart to avoid both sets of doors opened at the same time.
- Durable flooring that will withstand water, snow, etc., provide for easy cleaning and provide a safe, slip-resistant surface and floor mats.
- Elevator to meet ADA specifications.

RECEPTION DESK

- Reception desk should be in close proximity to gift shop in order to allow one person to man both.
- Large enough to seat two staff.
- Reception desk should be barrier free, located in close proximity to main entrance and be clearly marked and visible from main entrance.
- Some bench-type seating is desirable in this area.
- If possible the information desk should be located in a way the receptionist has clear line of sight to parking and trailhead to improve security.
- Ample display rack for pamphlets, brochures, etc., for Recreation and Parks, other agencies as well as "Other Attractions" for general tourism information.
- Bulletin board for upcoming programs, announcements and special items of interest.

LOBBY

- Should be spacious, open, well lit. It should create a warm, welcoming feeling without being intimidating or pretentious.
- Include an area for information on Mr. and Mrs. Robinson. A family background, memorabilia and portraits will be displayed.
- Adequate area for listing other donors, sponsors, etc.
- Good acoustics are critical. Choose floor, wall and ceiling materials that will minimize noise in all rooms. A cathedral ceiling may be desirable for the main exhibit hall, but a lower ceiling with acoustic treatment may be preferable for the lobby and the reception desk area, since the concentration of people here may tend to generate more noise.

- Restrooms should be located in close proximity to main entrance.
- Signs must be located where they can be clearly seen. Use international symbols whenever possible.

EXHIBIT HALL

- The Exhibit Hall should be open and inviting with ample space to accommodate peak loads. Create a "gathering area" for people to socialize; a place that is casual and comfortable. This area will greatly enhance functions such as receptions, lectures, special exhibits, etc. No more than 65 to 70% of this space should be allocated for fixed exhibits. The Department wants the flexibility to have small, temporary exhibits from time to time. These smaller exhibits should be mobile so they can be moved out of the way to accommodate special events, etc.)
- Visible from main lobby (if possible).
- Allow for random movement of visitors as opposed to directed sequential viewing.
- Area is important for the social component to connect people with people. It would be desirable for this area to be close to an exit to the deck for spillover area for larger groups. The idea here is to create a sense of "community". A homey, warm and inviting place for the users to congregate and socialize. A large stone fireplace with seating for small groups of up to 10–15 people. An alcove type arrangement to keep this area out of the "main flow" of traffic and noise may be perfect for this component.
- Possible suggestion – create numerous dividers perpendicular to main walls. These would serve to separate various exhibits, provide more wall space and with proper acoustics design, dampen noise.

EXHIBITS, GENERAL COMMENTS

- 60-70% of the exhibit space should be allocated to fixed/permanent exhibits. Other exhibits will be of limited life and replaced periodically to provide a new experience for frequent visitors.
- Interactive exhibits must be of a proven reliable nature. The County will not have the staff and resources to maintain high-tech, complicated exhibits.
- Noise from exhibits should be minimal.
- The Department envisions several "museum quality" exhibits that are command attention, but are tastefully done. The learning experience and the quality of construction is of utmost importance. "High tech" type displays should be kept to a minimum, if utilized at all.

TWO CLASS / MEETING ROOMS

- Each room is to have capacity of 40 people.
- One to be considered a "wet" classroom.

- Both rooms must have full Audio/Visual (A/V) setup.
- Both rooms should have room darkening capabilities for daytime use of A/V equipment.

AUDITORIUM / LARGE CONFERNCE ROOM

- Large room with a capacity of at least 150 people.
- Consider designing facility with the Conference Room as a separate "wing" of the building connected by a corridor that contains restrooms. There would be a steel security gate at the end of hallway to eliminate access to main building during "off" hours.
- Hallway immediately outside of conference room must be wide enough to accommodate several tables and chairs to be used when registering attendees for programs, for displays/poster sessions, refreshment tables, etc.
- While auditorium or theater seating is often desirable, we believe that flexible seating (folding or stackable chairs) is more practical for this project. A storage closet for tables and chairs must be built into this room or in an immediately adjoining hallway.
- Room to be divided with two power partitions.
- Must have built-in sound system adequate for room with 150 people.
- Ceiling fans (large, quiet) in each section of room.
- Cathedral type ceiling or ceiling sloped upward to the front of the room to accommodate a large, ceiling-mounted large projector screen so that excellent visibility is afforded to all attendees.
- A/V components in each room with main A/V system for Room #1.
- Windows are desirable in this room, however, they MUST have blinds/shades that can be closed to reduce ambient light. This is needed to insure excellent daytime A/V viewing.
- Good acoustics are critical. This is especially important when the large room is divided and we have concurrent sessions taking place in all three rooms. Noise "spillover" from adjacent rooms and other areas of building must be minimal.
- A carpeted floor is recommended for this room to improve the acoustics.
- Storage closets are required in these rooms to accommodate supplemental A/V equipment, podium, etc.
- The auditorium should have a desktop computer hookup and projector for audio-visual displays, to minimize the need for laptops.
- Include plated floor receptacles for electrical, sound A/V usage.
- Include a large built-in chalk/dry-erase board in a closeable cabinet in each room.

DISCOVERY ROOM (40 person capacity)

- An exhibit room geared towards younger children, with an emphasis on hands-on exhibits.
- Locate this room adjacent to, and in the flow of, the general public exhibit space but isolated enough to reduce disruption from youthful noise and activity.
- Interior wall should have windows to allow for ease of monitoring this area.
- Include a carpeted three tier "step type" structure (portable) for children's lectures, and story-telling type programs. This type of structure is best constructed in a corner but must have a back rail in case it is pulled away from a wall.
- Furniture, exhibits, viewing window height, etc., should all be scaled to accommodate our younger visitors.
- Include built-ins for small live animals/aquariums in one wall, with ample maintenance space behind for care and feeding of animals, including a large sink.
- Good acoustics are critical in this room. If possible, have this room somewhat segregated from the main exhibit areas, or use extra soundproofing to assure that the activities conducted in this room are not disruptive to the other spaces.

PLANETARIUM

- Include a 30-foot projector dome.
- Seating for 50 people.
- Newer, domed-theater type concept with digital planetarium projector like the Spitz, Inc. SciDome system.
- Digital projection type based on Starry Night Dome astronomy software with full theater capabilities.
- Removable seating is being considered to allow for the greatest flexibility in programming such as meeting room, "camping under the stars" and other functions.
- Lighting sufficient to allow room to be used as a general meeting facility.
- Must have total darkness capabilities.

BIRD/WILDLIFE VIEWING ROOM

- Bird viewing area should be somewhat separated from the noise and congestion of main area.
- Large windows for ample viewing.
- Seating capacity of 5-6 people.
- Area immediately outside should be at ground level with ample space for the creation of an attractive garden area including a water feature to attract wildlife.

- The area outside these windows must be at or near ground level to allow for close observation and should have a water feature, rocks, trees, shrubs, perennials, bird feeders, etc. (In-house staff will design and install garden.)

GIFT / BOOK SHOP

- Reception desk should be in close proximity to gift shop in order to allow one person to man both if necessary.
- Gift shop needs its own separate storage/stores area for receiving and shipping, overstock merchandise storage, ordering and inventory control, etc.
- Needs to be open and inviting and in a predominant location with good visibility from main entrance.
- It is also desirable to have gift shop situated in a way so as to allow it to remain open after nature center closes. (Studies have shown that having the gift shop open for 30 minutes after center closing, increases sales.)

LAB

- A space for "authorized-use-only" to accommodate lab work related to research, natural resource management, and educational program development.
- Lab-type countertops with ample cabinets above and below to accommodate eight workstations.
- Ventilation hood over one lab counter (must meet lab safety standards).
- An island countertop workspace with cabinets below (some of the work stations could be located here as well).
- A minimum of one, two-basin sink.
- A refrigerator/freezer for samples, etc.
- Storage cabinets.
- Safety/eye wash station.

LIBRARY

- Bookcases with adjustable shelves, 3 feet wide x 7 feet high.
- Large built-in chalk/dry-erase board.
- Two computer stations.
- A ten-foot conference table with chairs.
- A/V Equipment. TV, VHS, DVD and cable in lockable cabinet.
- This room will serve as a conference/meeting room for staff and volunteers.

STAFF/ADMIN. OFFICES

- Staff offices need to be separated from the public spaces by a door, to provide the staff with privacy and a quiet working environment.
- Offices for the Director, MPEA Manager and Coordinator are important to insure privacy and security of information when dealing with employees, employee records, etc.
- Once again, good acoustics are required.

NOTE: More detail on the following spaces will be added as the design program develops.

BUTTERFLY HOUSE (Screened structure separate from main building)

KITCHEN

- Should have convenient delivery access for catering services.
- Loading zone for deliveries.
- Large commercial refrigerator to accommodate large party trays.
- Microwave.
- Space for eating area for staff.

LUNCHROOM

RESTROOMS, Public on Main Floor (with baby changing stations)

RESTROOMS, Public, accessible from outdoors (consider the use of one restroom with inner lockable doors to secure building when nature center is not open).

RESTROOMS, Employee as part of locker rooms

LOCKER ROOMS

WORKSHOP

STAFF WORK AREA

STORAGE, GENERAL

STORAGE, JANITORIAL

STORAGE, GIFT SHOP

STORAGE, BIRD MOUNTS (must have climate control and be rodent-proof)

STORAGE, PROGRAMMING

STORAGE, A/V

STORAGE, LAB

STORAGE, INTERN EQUIPMENT. GEAR, SUPPLIES

STORAGE, VEHICLE AND EQUIPMENT. (Separate building possibly in area of old garage)

STORAGE, ELECTRICAL AND MECHANICAL – dictated by building design

STORAGE, EXHIBIT (Out of season, replacement materials, etc.)

Design Consideration - consider having auditorium, planetarium and restrooms segregated from rest of building to accommodate group and after hour use, without affecting other areas of the facility.

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