The Garden Renovation Plan
for the Japanese Gardens at Birmingham Botanical Gardens
December 2006

Prepared by:
ZEN Associates, Inc.
Boston, MA
Washington, D.C.
Boca Raton, FL
1.800.834.6654
www.zenassociates.com
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>SECTION</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>3</td>
</tr>
<tr>
<td>1 - MAIN ENTRY</td>
<td>4</td>
</tr>
<tr>
<td>2 - DRY GARDEN (Karesansui)</td>
<td>5</td>
</tr>
<tr>
<td>3 - TEA HOUSE (Toshin-an)</td>
<td>6</td>
</tr>
<tr>
<td>4 - BONSAI PAVILION</td>
<td>7</td>
</tr>
<tr>
<td>5 - JAPANESE CULTURAL PAVILION</td>
<td>8</td>
</tr>
<tr>
<td>6 - STREAM</td>
<td>9</td>
</tr>
<tr>
<td>7 - POND</td>
<td>10</td>
</tr>
<tr>
<td>8 - BAMBOO GROVE</td>
<td>11</td>
</tr>
<tr>
<td>9 - HULSEY WOODS</td>
<td>12</td>
</tr>
<tr>
<td>10 - CIRCULATION</td>
<td>13</td>
</tr>
<tr>
<td>10a - ACCESSIBILITY STUDY: PROPOSED CONDITIONS</td>
<td></td>
</tr>
<tr>
<td>11 - VEGETATION</td>
<td>15</td>
</tr>
<tr>
<td>11a - TREE REMOVAL PLAN</td>
<td>15</td>
</tr>
<tr>
<td>11b - VEGETATIVE GROUPINGS PLAN</td>
<td></td>
</tr>
<tr>
<td>12 - DRAINAGE</td>
<td>18</td>
</tr>
<tr>
<td>13 - AMENITIES</td>
<td>19</td>
</tr>
<tr>
<td>13a - GARDEN AMENITIES PLAN</td>
<td></td>
</tr>
</tbody>
</table>

---

**The Garden Renovation Plan**

*for the Japanese Gardens at Birmingham Botanical Gar-*
INTRODUCTION

ZEN Associates is honored to prepare and present the following Garden Renovation Plan for the Japanese Gardens at Birmingham Botanical Gardens in the state of Alabama, United States of America.

The Japanese Garden at Birmingham Botanical Gardens was created in 1965 and included the Koi pond, stream, waterfalls and Zen garden. Over the ensuing 40 years, numerous additions and adjustments have been made, including the more recent acquisition of the Tea House and Cultural Center Building. These additions, along with time, have allowed the gardens to evolve into what we experience today.

While forty years may not seem long in comparison to the generations of renovations and refinements of the renowned gardens of Japan, it is still wonderful to be able to look back into the garden’s historical background and know that many important people that have dedicated their time, effort, and passion into preserving, developing, and refining this unique garden. This garden possesses a very high level of design which includes several particularly noteworthy elements such as the authentic Tea House, extensive stone arrangement, the large stream and waterfall system, and the Torii Gate.

In following with the mission statement of the Birmingham Botanical Gardens, the role of the Japanese Gardens is to educate. The role of this Garden Renovation Plan (GRP) is to preserve and follow the intent of the original design however several design modifications have been made which will enhance and refine the gardens both physically and culturally.

The Japanese Garden could be considered a classroom for learning. Visitors and students will experience cherry blossom festival, tea ceremony, and candlestick pruning. The introduction of more traditional garden elements such as a series of bamboo fences, different styles of stone lanterns, and bonsai properly displayed will offer even more insight into Japanese culture. The addition of these design elements combined with the improvements and modifications to existing features will greatly enhance the educational experience of the visitor.

Maintenance, while not addressed as part of this Renovation Plan, is critical to the success of any garden, and in particular the Japanese Garden. The upkeep of the garden’s features is essential to maintaining the positive experience of the visitor. And equally important is the teaching aspect of the maintenance practices, as learning about the gardens is directly tied to understanding the methods and approach to their care.

ZEN Associates, Inc. is very pleased to participate in this historical and unique project. We would like to express our gratitude to the director, Mr. Fred Spicer, and to all who were involved in the selection of our firm to undertake this project.

DRAFT
The Garden Renovation Plan
for the Japanese Gardens at Birmingham Botanical Gar-

Design
The overall experience as you approach the Torii Gate is fine. It is an inviting experience. There are some details that should be approved.

- Structure: The design and location of Torii Gate itself is well suited for the entrance to the gardens.

- Stone groupings: The large stone standing to the right is very powerful and correctly done. In order to counter balance this stone we recommend one more large stone that would lay horizontally on the other side of the entry as a female stone. Additionally, the surrounding boulder arrangement should be reset in a more organized manner.

- Vegetation: New ground cover should be installed to reduce the extensive amount of pine needle mulch both surrounding the Torii Gate and along the ensuing path to create a clean edge. This path should also be developed as the new Cherry Walk. Trees should line the route from the Torii to the upper stone bridge.

- Paving: A clean edge should be created between the asphalt paving of the main walk and the peastone. This will help signify the beginning of the Japanese Gardens. Once past the Torii Gate, the walk should be regraded with a crest to control drainage and eliminate the need for the “railroad” timbers.

- Amenities: A pair of lanterns should be placed on either side of the walkway to the Torii Gate to enhance this entry. These should be “Shimmyo” style, a typical Shinto lantern found with the Torii Gate. Also, a large stone water basin is proposed along the side of the entry path. This is a public style basin as commonly set at the entry to a Shinto Shrine in order to cleanse physically and spiritually. Fresh water is provided for guests to scoop with a ladle and wash their hands and rinse their mouth. This could be operating all the time or only during special functions.

Program
Evaluate approach, entrance experience, paving material, grading, stone placement, plantings.
**2 - DRY GARDEN (Karesansui)**

### Program
Consider immovable, but make minor recommendations for improvements as appropriate.

### Design
- **Structure**: The irregular shape and edging of the current layout should be modified. We should create a well defined and well formed garden on all four sides to create a clear enclosure with a rectangular shape and a granite edging. Furthermore, an easily accessible viewing point should be established along its perimeter.

- **Stone groupings**: Stone setting within this garden should consist of 15 stones to follow the Japanese numerology of 7, 5, and 3 stone setting. This is modelled after the pattern found in the famous Ryoanji Temple dry rock garden and several other well-known gardens found throughout Kyoto.

- **Vegetation**: Efforts should be taken to preserve the cherry tree, as specimens of this age are precious. It is overgrown and should be pruned, but should maintain the overhanging effect. If the tree cannot be saved, it should be replaced with 2 weeping Yoshino. One might be planted now to prepare for the eventual loss of the old tree. Also, the taller pine behind the wall is distracting and should be removed.

- **Paving**: The proposed terrace surrounding the dry garden should be done in the “skikigawara” style pattern commonly found at a Buddhist Temple. This should wrap around all 4 sides for maintenance purposes, with wider sections to the south and east for public viewing. The current stepping path to the garden from the Taylor Gate should remain. An alternate route is proposed from the main entry path along the north side of the garden in order to provide access for disabled visitors.

- **Amenities**: The proposed modifications will allow for easier access to the seating area, to which additional benches will be installed.

---

*The dry garden at Ryoanji.*

---

*Karesansui*  
Accessible Path  
Shikigawara paving
**Program**
Consider immovable, but make minor recommendations for improvements as appropriate.

**Design**
The original design of the Toshin-an should be preserved.

- **Structure:** No changes are recommended for the structure of the Toshin-an.

- **Vegetation:** There are a few coniferous trees on the north side of the tea-house that are not appropriate for this setting. New shrubs should be planted to replace these and to fill in the bare areas. Suggested species include:
  - **EVERGREEN:** Eurya japonica, Ternstroemia gymmanthera, Camellia, Pieris japonica, Rhododendron indicum
  - **DECIDUOUS:** Spiraea cantoniensis, Rhodotypos scandens, Kerria japonica, Enkainthus perulatus, Serissa foetida, Viburnum awabuki, Fatsia japonica, Daphne odora

- **Circulation:** Within the garden, the existing “Nobedan” and rough stone pavers have to be reset and preferably redesigned. Surrounding the garden, the path system should be modified to meet ADA standards, which will include changes to the width and material.

- **Amenities:** No changes are required to the style and placement of the bamboo fence and gates, however they require maintenance as outlined below. The three existing lanterns are appropriately located. The water basin is in need of repair to become operational. An improved design should be provided for all signage, especially the security warnings.

- **Security:** The current security system has proven adequate.

**Maintenance**
A maintenance plan should be developed that references the 2002 Conservation Assessment of Non-Living Collections report. The bamboo fence and “shiorido” gate should be repaired at least once every two years with green bamboo and fresh tie line. Bamboo can be replaced randomly within three years or at once entirely in two years. “Yakisugi” posts can be replaced once every 5 years.
Program
Evaluate the existing structure with regard to location, layout, design, utility, accessibility, safety and security. Develop solutions to eliminate shortcomings, or consider relocation and redesign of a similarly-sized structure, if warranted.

Design
A new building is proposed to house the bonsai collection. Architecturally, the new structure will be more of a “Shoin” style rather than the more humble “Sukiya” style.

- **Location:** The Bonsai Pavilion presently is located along the western side of the Japanese Gardens, along Cahaba Road. While relocating the building to a site closer to the main entrance could solve the security issues, the current location allows it to be an important node within the Japanese Gardens, and therefore should remain there.

- **Structure:** The view of the roofline is very important in the Japanese Garden. An entry structure should be constructed for the eastern facade with a roofline that is visible from the main path. The remaining three sides of the pavilion should be enclosed with a “dobei” style wall. Structures will be located for the display of the Bonsai similar to the existing walls, which will be visible through windows in the entry facade. This allows visitors to view parts of the collection while full access is closed.

- **Vegetation:** Each of the Bonsai trees should only be viewed from one side, with a blank backdrop to allow the intricacies of each specimen to stand out.

- **Circulation:** A new pathway connects the Bonsai Pavilion back to the main path.

- **Amenities:** Exhibit signage could be incorporated at the entry which provides a brief insight into the art and culture of bonsai.

- **Security:** Access should be controlled through program scheduling. A video camera system should be installed throughout the pavilion.
The Garden Renovation Plan
for the Japanese Gardens at Birmingham Botanical Gar-

5 - JAPANESE CULTURAL PAVILION

Program
Consider this structure as immovable. It is anticipated that this structure will be enlarged with a rectangular addition on the northeast façade (approx. 12x20') and by projecting a gable-faced addition on the southern side (approx. 12x20'). Maintain design flexibility in this area until the precise layout is determined. Develop layout and materials recommendations for a permanent ‘amphitheatre-style’ seating area in the lawn space to the rear. Incorporate permanent seating for up to 120, with potential for overflow of an additional 80. Develop a new entrance court on the south side/ south-east corner of the building, allowing barrier-free access to the structure, as well as circulation along both the western and eastern sides, to the northern side (the rear of the building). Consider the programmed uses for this facility & the needs of teachers, performers, exhibitors & other users. Develop a pedestrian circulation system from the parking lot, through the Hulsey Woods, to an appropriate entrance experience and into the seating area. Develop an appropriate vehicular access to this facility, including an area suitable for loading/ unloading, turnaround and convenient parking (5 spaces). Design the above parking to integrate fully with other garden features whether full or empty.

Design
• Structure: The proposed conceptual additions to the pavilion have been shown. The design of the pavilion itself will not be addressed in this report.
• Circulation: There should be a wide stone entry path leading to the ‘front’ entry of the building. The path and adjacent landscape should emphasize ‘main entry’. Gravel paving should surround the entire building, which would support many activities while reducing maintenance.
• Amenities: The required seating has been addressed through the proposed amphitheatre, where natural stone seating should be set into a raised slope. Signage should be placed along the path informing visitors of the Asian Woodland in Hulsey Woods.

Concept Photo: Natural stone amphitheatre in Thornden Park, Syracuse, NY

Typical section of natural stone amphitheatre style seating concept.
Program
Analyze existing configurations and physical characteristics. Develop a plan to restore/repair these features in the most economical manner, with utmost consideration for desirable existing plant material and aesthetics. Recommend methods to create screening and/or to control access to the water’s edge where conflicting uses abut, or where aesthetics (especially spatial delineation) dictate. Incorporate recommendations to control and minimize nuisance wildlife.

Analysis
The combined stream and pond is the backbone of the Japanese garden which unifies and links most of the separate gardens. It is the heart of the garden. The water system has been shut down for several years due to vessel failure, weir failure, and excessive erosion. There is evidence throughout the stream that repairs have been attempted many times, most commonly patching with concrete. In general there is failure at every waterfall and/or weir. The larger waterfalls have been failed but to a combination of shifting and setting. Water has slowly undermined the larger boulder. Consequently the series of streams, pools and waterfalls can not contain and control the water flow as intended. In addition the severe erosion is adding to the build up of siltation and sediment in the lower stream and pond.

Recommendation:
- **Structure:** The entire stream should be rebuilt. There should be structural monolithic concrete weirs at each waterfall and weir. The concrete structure will sit below and behind the stone arrangement. Essentially, the stone arrangement will appear as intended while the concrete will provide support. The stream and pool bottoms and edges will be clay patched. This will provide for suitable lining while allowing us to preserve most of the original pond/stream edge stone arrangements.
- **Vegetation:** Many of the plants along the edge of the stream will need to be removed. For certain edges of the “pools” wall soil will be removed from behind and between the boulders and replaced with clay. After the clay pour is complete planting can be replaced.
- **Drainage:** Because storm water and drainage into the stream is inevitable care must be taken to control where, and how, surface drainage enters the stream. Water will sheet drain over lawns and plant beds. Where this occurs dense ground cover should be maintained. “Channels” that have developed should be corrected, repaired and replanted. Concentrated water should be collected via area drains and piped into the stream at strategically placed locations. This assumes BBG will maintain a strict policy of restricted use of chemical, pesticides and fertilizers in the landscape.
- **Circulation:** The Interrupted Bridge should be redesigned to be handicap accessible and maintenance cart accessible. The Upper Stone Bridge is difficult to create a bypass without spoiling excellent views of stream. Create a viewing area and turn around for both sides of the bridge. The Lower Stone Bridge can be bypassed with a new proposed handicap and maintenance cart accessible connection. The areas adjacent to this bypass can be developed as an aquatic garden or an iris patch.
- **Amenities:** New seating areas should be provided on either side of the Upper Stone Bridge.
Program
Develop a plan to restore/repair this feature in the most economical manner, with utmost consideration for desirable existing plant material and aesthetics. Think about how to curtail shoreline erosion, control access to the water’s edge, minimize nuisance wildlife, control and minimize algal buildup, and improve overall water quality and to create a better environment for a future koi collection.

Analysis:
Overall, the edge of the pond is in poor condition due to erosion, settling and over use by visitors and wildlife.

Design
We recommend that the pond edge be rebuilt, surface drainage into the pond be eliminated or controlled, and vegetated edges be established and maintained. The use of a clay liner on the pond bottom and banks should remain, however it needs to be reconstructed. The proposed approach would be to drain and dredge the pond, reset all of the boulders along the entire edge, backfill and pack the backside with clay and fabric, re-grade the edges and planting berms to reduce erosion, and establish dense planting. All work will be done from the center of the pond in order to minimize impacts to the surrounding established plantings and path.

The layout, shape and location of the pond will remain the same. The location of the bridges, the rest shelter and the pathways will also remain the same. Our recommendations are to focus on repairing and modifying the edge of the pond, replacing the Moon Bridge with a new but similar bridge, and to provide maintenance repairs to the Zig-Zag Bridge.

- Structure: Rest shelter and immediate surroundings are quite appropriate. Providing an interesting view from and to this structure is important.
- Stone Groupings: Except for the central island the stone groupings and boulder arrangements around the pond will essentially remain the same. Many of the stones have shifted or settled since they were originally set. When obvious and appropriate these will be reset during the reconstruction of the pond edge. The central island will be rebuilt entirely in order to incorporate a suitable foundation and geo fabrics which will provide long term stability. The size, location, and “aesthetic symbolism” will be maintained.
- Vegetation: We propose incorporating several thematic groupings of new trees and shrubs around the pond edges. Final selections will be decided by BBG and specific locations will be determined in the field. It is important to recognize that maintaining dense planting of groundcovers along the edges will significantly improve overall water quality, help protect against shoreline erosion, control access to the waters edge, and improve the overall aesthetics.
- Circulation: The layout of the existing pathways is fine. The path on the western edge should be widened to accommodate carts and provide better accessibility for maintenance and disabled visitors. The path between the bamboo grove and the pond needs to be regarded in order to control storm water erosion.
- Amenities: We are recommending that new several fences be are incorporated into the landscape. The most important being a high screen wall along Cahaba Road. The sound and visibility of the cars is very distracting to the overall experience when in the garden. This could be a continuation of the Dobei Wall at the Bonsai Pavilion or an independent bamboo fence.

The Garden Renovation Plan
for the Japanese Gardens at Birmingham Botanical Gar-
The existing bamboo grove is established and mature with several different types of Bamboo. This grove should be developed into a “garden” in which visitors can access and experience such an environment.

- **Circulation**: We recommend incorporating a boardwalk that bridges over the stream/drainage channels and circulates through the center of the grove. The boardwalk should be built with an understanding of the frequency and intensity of the flooding in that area.

- **Vegetation**: We also recommend that the bamboo grove could be the resource for culling bamboo for replacing bamboo fencing. This, among other, should be considered as part of the educational opportunities focusing on the role gardens play in Japanese culture.
The Garden Renovation Plan
for the Japanese Gardens at Birmingham Botanical Gar-

Program
Consider the existing wooded area and the donor’s desire to create an Asian Woodland here. Develop thematic and naturalistic shade-loving Japanese plant collections. Propose new garden features, if warranted. Analyze internal and external views. The addition of a 15° square Japanese-style belfry is being planned. A traditionally styled “friendship bell” cast in Taiwan and donated by the Central Osaka Rotary Club will be housed in the belfry. Develop an internal path system, and a peripheral path system to link to existing features such as the Tea House Garden, Cultural Pavilion (seating area), adjacent asphalt road and parking lot. Develop nodes of interest within this area and along internal and external pathways, including an area suitable for small outdoor weddings. Develop internal parking (25 permanent, 25 overflow spaces) in proximity to the Cultural Pavilion. Minimize disturbance to existing grades, drainage ways, desirable trees and vegetation. Provide for necessary screening from and integration with the adjacent areas. Reconfigure routes to provide a more gardenesque pedestrian experience.

Design
- Vegetation: This area should become a place for the cultivation of the species used throughout the Japanese Gardens. Groupings of plants should be located throughout the woodland so that their natural growth can be viewed in contrast to the more formal setting of the rest of the gardens.
- Circulation: With the new proposed access from the parking lot, it is important to direct visitors to enter the Japanese gardens through the Torii Gate, as the experience of the gardens should follow a sequence.
- Amenities: Signage should be placed to direct visitors to begin their experience of the gardens through the Torii Gate. Within the gardens, additional signage should be placed along the path from the Japanese Cultural Pavilion informing visitors of the presence of Hulsey Woods and it’s relation to the gardens proper.
The Garden Renovation Plan
for the Japanese Gardens at Birmingham Botanical Gar-

Program
Incorporate current design standards of the ADA. Investigate and recommend appropriate surfaces and/or drainage features to decrease maintenance from erosion, comply with ADA regulations, allow access by maintenance personnel and increase aesthetics. Consider main footpaths, secondary paths, wood bridges (3), stone bridges (2) and other pedestrian ways. Recommend methods to control and/or limit circulation in certain areas, if appropriate.

Design
The botanical gardens will need to determine the extent to which they will require accessibility. As it stands now, the majority of the garden is accessible by at least one route, and for most areas the preferred flow can be maintained with the modifications recommended.

- Materials
  - Crushed Stone: The primary surface for the path network should be a densely compacted crushed stone. Properly built crushed stone paths can meet the American with Disabilities Act (ADA)/Accessibility Guidelines. Overall grade averages of less than 6% will be more sustainable if compacted crusher fines are used. Cross slopes on all crushed stone paths should be between 3-5%. Crushed rock contains the original rock cements and binders within the rock dust. These binders, combined with water and then compacted with a vibratory roller or plate compactor should produce a solid, compacted surface that resists significant deformation from use.

  - Chip Seal: For high traffic areas and steeper slopes, a chip seal surface should be used.

- Accessibility: We have made modifications throughout the garden to provide greater accessibility. There are certain components of the path system that are of great importance to a Japanese Garden, such as the stepping stone paths, natural boulders stairs, and bridges. Where these features impeded access to an area, or where site conditions did not allow modifications, an alternate route is proposed.

- Edging: Some minor correction is needed in order to get a higher level of stone setting. This correction will be recommended throughout the entire garden, particularly for stones set or placed at the edge of the walkway and other circulation. Some edging stone should be removed completely while other areas will be reset.


Typical section through path edge concept

A sieve analysis using 3/8" minus crusher fines would be as follows:
- 3/8 inch sieve - 100% passing
- 1/4 inch sieve - 65% passing
- 3/16 inch sieve - 50% passing
- 1/8 inch sieve - 35% passing
- 1/16 inch sieve - 25% passing
The Garden Renovation Plan
for the Japanese Gardens at Birmingham Botanical Gar-

10a - ACCESSIBILITY STUDY: PROPOSED CONDITIONS

- New Boardwalk
- New Path & Bridge
- Step Removed and Path Re-graded
- New Bridge
- New Path
- New Path
- New Path
- New Terrace
- Widened Path
- New Path

ZEN Associates, Inc.
Program
Increase the spatial definition and enhance the feelings of tranquility and “separateness”. Further engender the appreciation of art and nature. Analyze and consider the effects of existing desirable specimen plants, especially with regard to views, spatial definition and horticultural/arboricultural interest. Make recommendations for new specimen plants as appropriate. Evaluate existing undesirable specimen plants and make recommendations for removal and/or replacement. Analyze and consider the effects of existing desirable significant vegetative groups, especially with regard to views, spatial definition and horticultural/arboricultural interest. Recommend new significant vegetative groups as appropriate. Evaluate existing lawn spaces for condition, utility, form and maintenance considerations. Develop appropriate solutions for edge treatments. Plant selection must meet typical horticultural as well as general design criteria and should follow the guidelines set forth in the Conservation Assessment Report for Living Collections. Expand existing plant collections as well as incorporate potential new collections.

Design

- Specimen Plants:
- Vegetative Groups: The existing cherry walk does not do well in its current location; it therefore should be recreated along the main entry path after the Torii Gate. In its place along the southern edge of the pond should be a Japanese Maple walk. Along the northern edge should be a massing of pines. An alternate to the traditional Japanese Black Pine is needed; Pinus virginiana maybe a suitable option. Additional groupings should be introduced, and could include: dogwoods, palms, Trachycarpus.
- Open Spaces: The Vegetative Groupings Plan also designates the proposed open grass areas. It will be wider and cover much larger areas, with grading to create mounding up to 8’ high. For all of the lawn areas regrading should be done to avoid water running onto the grass. Catch basins in low areas, and gutter drains and catch basin for the walks adjacent to the lawn areas will solve the gouged grass edge. Each distinctive section of the garden should be defined through separation and combination. Particularly the pond area has to be simplified and open. This is the only major open space, so the shape of the sky must be controlled.
- Plant Selection: Check plant selection to insure it meets typical horticultural as well as general design criteria and should follow the guidelines set forth in the Conservation Assessment Report for Living Collections. Wild species such as Lindera can be used within the Tea Garden section, however at the main open pond garden the selection should be kept to a traditional Japanese Garden selection of species, such as Acer, Pinus, Rhododendron, Cycas, etc. The location of the gardens in the southern latitude gives it the advantage of being able to sustain Japanese species such as Phyllostachys reticulata or Phyllostachys edulis.
The Garden Renovation Plan
for the Japanese Gardens at Birmingham Botanical Gar-

- Tree To Be Removed
**Program**
Evaluate existing and proposed stormwater and drainage conditions both internal to and on the garden’s periphery. Develop appropriate recommendations for remediation and/or stabilization. Incorporate environmentally innovative and sensitive solutions.

**Design**
A number of solutions have been implemented throughout the gardens with varying degrees of success. It is crucial to solve the drainage issues throughout to preserve the character of the design.

- **Structures:** Area drains should be located as often as necessary along the path network and piped into the pond system or the local drainage pipes.

- **Vegetation:** Dense planting of ground covers are proposed for all critical slopes.

- **Circulation:** All paths should be crowned as discussed in the Circulation section. Trench drains will be installed along both sides of all paths to connect to area drains. This will remove the need for the water bars found along the main entry path and elsewhere.

**Maintenance**
It is equally important to maintain the clean-outs and culvert, as well as repair and washout or erosion as it occurs.
**Program**
Evaluate approach, entrance experience, paving material, grading, stone placement, plantings. The Taylor Gate should be considered immovable. Evaluate the location and effectiveness of the Ikebana Gate. Evaluate lantern placement, including the lantern sitting in the “triangle” of lawn at the intersection of Lane Park Road and Cahaba Road. Determine a suitable location for this lantern inside the Japanese Gardens proper. Evaluate Buddha location, safety and condition, and propose improvements, if needed. Evaluate existing features for soundness, aesthetic qualities and layout. Make recommendations for removal, reconfiguration, reconstruction and/or new features, if warranted. Evaluate existing features for soundness, aesthetic qualities and layout. Make recommendations for removal, reconfiguration, reconstruction and/or new features, if warranted. Plan for the incorporation of way-finding signage in areas where needed. Plan for the incorporation of interpretive signage in areas where appropriate. Note: Signage design is not part of this master plan program.

**Design**
- **Gates:** Structurally, each of the gates requires some maintenance to bring them up to standard. Regular repair for the wooden structures, including the cedar fence posts and bamboo poles, are to be replaced at least once every two years. A schedule should be established to replace 50% each year. The black twine should be replaced every New Year.
  - **Taylor Gate**
    - **Design:** The design and location work well.
    - **Maintenance:** Regular repair for the wooden structures, including the cedar fence posts and bamboo poles, are to be replaced at least once every two years. A schedule should be established to replace 50% each year. The black twine should be replaced every New Year.
  - **Ikebana Gate**
    - **Design:** The Ikebana gate is a typical “chumon” style, which should be relocated within the Tea Garden complex, preferably on the path from the Cultural Pavilion.
    - **Maintenance:** Regular repair for the wooden structures, including the cedar fence posts and bamboo poles, are to be replaced at least once every two years. A schedule should be established to replace 50% each year. The black twine should be replaced every New Year.

- **Lanterns:** The larger Kasuga lantern should be moved within the gardens proper and located adjacent to the rest shelter. The Yukimi lantern likewise should be moved into a more prominent position along the pond’s edge. Additional lantern styles should be incorporated at the main entrance and throughout the garden. (Note: refer to the Figure 13a - Garden Lantern Plan

- **Fences:** Additional variation of bamboo fences are recommended throughout the garden. Several new types of bamboo fencing should be located throughout the gardens to increase the educational aspect. A bamboo screen should be installed along Cahaba Road adjacent to the pond. A Koetsuji style fence should follow the crest of the berms by the pond. Once the expansion of the Japanese Cultural Pavilion is completed, the entry path could be bordered with a Kaiyuji style fence.

- **Basins:**

- **Stone Buddha:**

- **Signage:** Directional signage should be placed to guide visitor’s to enter the Japanese Gardens through the Torii Gate. This is especially important if a second means of access to the gardens is provided as proposed at the bus drop-off. In addition, a series of informational signs should be located to educate the user of the various aspects of the garden.

- **Other furniture:** There should be no garbage cans within the Japanese Gardens except in the Rest Shelter and near the Cultural Pavilion. In general, all items brought into the gardens should be carried back out by the user. A couple drinking fountains should be installed along the path system.
The Garden Renovation Plan

for the Japanese Gardens at Birmingham Botanical Gar-

(2) Shimmyo Lanterns

Chouzu Water Basin

New Location for Existing Yukimi Lantern

New Location for Existing Kasuga Lantern

Misaki Lantern

Kennenji Fence

Yarai-gaki Fence

Kajyu-ju Lantern

Kinkaku-ji Fence

Nanako-gaki Fence

Nanako-saki Fence

New Location for Existing Ikebana Gate

13a - PROPOSED GARDEN AMENITIES PLAN