

BIRMINGHAM BOTANICAL GARDENS
2612 LANE PARK ROAD, BIRMINGHAM, AL 35223
2006 MASTER PLAN – PROGRAM

September 2007

BRIEF HISTORY

In 1960, Birmingham Mayor James W. Morgan established Birmingham Botanical Gardens (BBG, or The Gardens) and commissioned the first master plan. This plan included the Conservatory, Japanese Gardens, Garden Center, the first gardens and various plant collections. The Gardens opened in October 1963. A number of private individuals who assisted with initial efforts founded Birmingham Botanical Society, Inc. (BBS), a non-profit corporation, in 1964 as a membership organization to support and improve The Gardens.

In the late 1970s a second master plan was created by Robert Marvin & Associates. The goal of this plan was to improve the quality of life for residents and visitors of the city of Birmingham by combining people and the natural environment. A major capital campaign began. With these funds, new features were created including additional gardens, an entrance plaza and an expanded Garden Center. During this time, the “garden room” concept was refined and some existing gardens were relocated and renovated.

Following a late 1980s update to the master plan, also by Robert Marvin & Associates, the BBS expanded its education programs and, after a successful capital campaign, the Mary M. Blount Education Complex was added on to the Garden Center. The new addition included classrooms, office space for the BBS, a seated lecture hall, a new expanded library and a herbarium. A part of the addition, the C. Beaty Hanna Horticulture & Environmental Center, houses offices for Alabama Cooperative Extension System (Extension) staff, and includes plant diagnostic and tissue culture laboratories.

In late 2001, BBS hired its first Executive Director. The executive director is responsible for the overall administration, maintenance and development of the facility. In 2003, BBS underwent an organizational makeover and changed its operating name to Friends of Birmingham Botanical Gardens (FOBBG). A new logo was unveiled as well: a simple leaf contains a ladybug made from two back-to-back Bs. Its spots depict essential plant parts (leaf, flower and fruit) and things cultivated plants need to grow (sun, water and a human hand for nurturing).

(The above was substantially taken from www.bbgardens.org, the organization’s Web site. For more information, including mission, governance, ownership, funding, operations and other contextual issues, visit <http://www.bbgardens.org/frequently-asked-questions.php>.)

SCOPE OF THIS MASTER PLAN

Except for our Japanese Gardens, this master plan update will address the entire 67-acre Birmingham Botanical Gardens site. However, because of the already heavily-developed and fairly well-integrated nature of much of the facility, many of the existing features and gardens will remain fixed as to their location, function and overall layout. These existing (unchanging) areas must be worked around, yet any new or modified features must integrate and interface appropriately with them. Minor alterations to reconcile the physical and visual aspects of these interfaces, and the nature of the physical and visual relationships between adjacent spaces are desired and must be addressed by this master plan, as indicated below under *Detailed Program Requirements & Considerations for Specific Gardens, Features and Facilities*.

At the same time, several significant gardens, facilities and infrastructure elements will likely see significant or wholesale modifications; these must be addressed by the master plan update as well. They are described below under *Detailed Program Requirements & Considerations for Specific Gardens, Features and Facilities*, and include:

- Formal Garden
- Bog Garden (and proximal areas)
- Bruno Vegetable Garden and adjacent Herb Terrace
- Conservatories
- Plant production, outdoor staff and maintenance facilities
- Parking
- Stormwater management system

A Renovation Plan for the Japanese Gardens was completed in December 2006 by ZEN Associates, of Woburn, MA. The Japanese Gardens is not part of this site-wide master plan, except where interfaces occur. This plan is enclosed.

A Needs Assessment Evaluation for the renovation of our conservatories was completed by Montgomery Smith, Inc, of Burlington, KY, in December 2007, with favorable results. The report concluded that the three existing exhibit houses are in good condition and should be renovated. It also suggests the addition of 2, 40x40' exhibit houses, one on each side of the existing houses that flank the main conservatory. This site-wide master plan update must proceed with these factors in mind. While the conservatory report also suggests that the current potting shed (head house) could be renovated in place, we still wish to examine alternative layouts for this feature and, moreover, the associated production facilities. These facilities include production houses, bulk materials storage areas, staff offices and break rooms, equipment storage, lath houses, etc. A copy of the Conservatory Needs Assessment Evaluation is enclosed.

Ongoing improvements to areas including the Blount Plaza, Garden Center entrance and Hill Garden, as indicated in the appended detailed program requirements, may take place during the master planning process. While not a discrete part of this master plan update, interfaces between the ongoing work may occur and responsiveness, cooperation and coordination with the designers of these respective areas, whether in-house or independent, are required to prevent conflict.

Previous master plans at BBG have been completed at a relatively conceptual scale, and accompanied by descriptive narratives as required to communicate salient points not illustrated or communicated with a

site plan and, if any, accompanying details and graphics. Local landscape architects, garden design firms, architects, other designers, artists, crafts persons, engineers, etc., were then selected by committee to execute detailed design development of individual gardens, elements and features. Contractors were hired as funds were raised, and the work was executed. Under the direction of BBG management and horticulture staff, planting design, selection and installation were handled similarly, or entirely in-house. The master planning firm was engaged for further consultation and/or site inspections as work progressed on an as-needed basis. This process served us well and allowed us to actively engage a wide range of local and regional talent and serve as a collective showcase for their representative creations. In all cases, it remained an expressed goal to have the final product substantially follow the master plan.

Because of past success with this model, it is envisioned that this master plan will be handled in much the same manner, with several important differences. One is that the need for an extensive narrative seems unlikely, given this document. Another is that programming and sustainability will drive the recommendations of this master plan update. These differences and others are fully described below under *Overall Goals & Areas of Concern*, and *Detailed Program Requirements & Considerations for Specific Gardens, Features and Facilities*.

THE CLIENT

Birmingham Botanical Gardens is managed as a public/private partnership by the city of Birmingham under the director of its Park & Recreation Board (the city), and by Birmingham Botanical Society, Inc., dba Friends of Birmingham Botanical Gardens, under its executive director (FOBBG, or The Friends). In short, the successful master plan designer firm will be engaged and paid by FOBBG, who will act as the primary interface between the selected master planning firm and the city. Your primary contact and liaison for this project will be FOBBG's executive director. At certain times and for certain aspects of the master planning process, the executive director may designate a representative to act in The Gardens' behalf. Selection of a firm to undertake this master plan will be recommended by an established Master Plan Selection Committee of The Friends, and, insofar as budget is concerned, confirmed by their Finance and Executive Committees and eventually, their Board of Directors.

The review, approval and presentation processes for the master plan itself will likely involve some or all of the following, perhaps more: a separate Master Planning Committee of The Friends (which will include city and gardens personnel, private citizens and professionals), Design Review Committees of both entities, City-Owned Building Review Authority of Birmingham (COBRA), Birmingham fire, police and engineering departments, Birmingham city council, city councils of local municipalities such as Mountain Brook, Homewood and Vestavia Hills (which may be approached for funding, and/or as a courtesy), the public, the Birmingham Park & Recreation Board and The Friends' Board of Directors. It is likely that the latter two will want to formally and/or ceremoniously adopt the completed master plan. In all cases, it is understood that while the presence of a firm representative may not be required at all meetings, the successful master planning firm will be professionally responsive to the various needs of these entities.

PARTNERS

It is anticipated that a number of organizational partners will provide input, feedback and general consultation during this process, at levels ranging from verbal advice to specific design criteria. Although

more or less direct contact with the master planning firm may be necessary and will be facilitated as required, depending on the entity or individual, it is envisioned that The Friends will act as the primary liaison between these entities and the selected master plan update firm. These partners will likely include:

- Alabama Department of Environmental Management – possible review and approval.
- Alabama Symphony Orchestra – performance staging.
- Auburn University – horticulture, turf management, integrated pest management, parking deck.
- Birmingham Civil Rights Institute – local cultural facility.
- Birmingham Museum of Art – local cultural facility.
- Birmingham Zoo – local cultural facility and neighboring site.
- Cahaba River Society – riverine environments and stormwater management.
- Friends of Shade Creek – riverine environments and stormwater management.
- Green Resource Center for Alabama – “green” materials and technologies
- Legacy, Inc. – conservation and interpretation.
- Marty Martin Engineering – stormwater management structure design.
- Natural Resource Conservation Association – stormwater management structure design.
- The Nature Conservancy: Alabama Chapter – Alabama Habitat Gardens, habitat management and conservation interpretation.
- Samford University – ecology.
- Schoel Engineering – stormwater management structure design.
- Southern Environmental Center – Birmingham Southern College.
- University of Alabama at Birmingham – Native American exhibit.
- US Army Corps of Engineers – *see note at end of this section.*
- Vulcan Park Foundation – local cultural facility.
- ✓ In addition, it is probable that one or more architectural/engineering firms will be engaged to develop designs for architectural/engineered features and that a conservatory consultant will be engaged at some level.

In all cases, it is expected that the design decisions of the master planning firm will guide the process, and that the master planning firm will professionally coordinate as needed with any and all partners.

Note: Although the Federal Emergency Management Authority (FEMA) conducted a regional stormwater assessment plan (completed 2004) which included our site, local engineers who are leading design efforts in response to this plan have determined that BBG’s associated “upstream” drainage basin is too small to effectively mitigate stormwater runoff beyond our own site. Nevertheless, comprehensive and creative stormwater management must still be a major part of this master plan update. At this time, it does not appear that changes to stormwater management structures and methods on our site will require review and approval by the Army Corps of Engineers, although they will require other approvals.

OVERALL GOALS & AREAS OF MAJOR CONCERN

Programming

Hands-on, science-based educational programming is a current strength of The Friends, especially for children in grades 1-5. It is a desired goal of this master plan update to enable similar programs for middle and high school-age students, and to enable us to better reach out to undergraduates, graduate students and “green” professionals as well. Education must drive the majority of improvements addressed by the master

plan. An interpretive signage program is in progress, and all new features should accommodate and facilitate inclusion in this program by providing the opportunity to explore a broad variety of interpretive themes. We seek to educate visitors of all ages about plants and the environment, from the casual walker to the gardening professional and everyone in between. We seek to actively and passively engage the visitor and expose them to the beauty, wonder and importance of gardens and the natural environment. This master plan must be developed to a degree that fully delineates, communicates, illustrates and/or explains the educational and interpretive concepts introduced by the master plan designer(s) as expressed in garden, feature and/or facility design.

Sustainability

Aside from limited *ex situ* conservation of southeastern native plant germplasm, and despite our mission of increasing environmental awareness, we are not currently setting a positive example of sound natural resource stewardship. That this is not generally noticed is testament to relatively low local standards and awareness. While certain aspects of our facility will always be high-maintenance and resource-greedy areas, and are not slated for removal (our rose gardens, for example), we strongly desire to have an ethic of increasing sustainability – a minimizations of resource use – inform all of our future work. This master plan must reflect that ethic.

We feel a sustainability theme is an essential element in expanding educational programming, in developing future partnerships with like-missioned organizations and in capturing a wider (and younger) audience. In an overall sense, we want to change the regional paradigm for a number of issues and be an example of positive change so we can educate all of our visitors, including design professionals, about sustainable design and best management practices. This master plan must be developed to a degree that fully delineates, communicates, illustrates and/or explains the sustainability concepts introduced by the master plan designer(s) as expressed in garden, feature and/or facility design.

Visitor's Services

We desire to make BBG a more user-friendly facility for all of our visitors. It is envisioned that major improvements to the following facilities and/or site elements will be addressed by this master plan.

- **Parking**

Current parking capacity for visitors is 198 stalls, plus 9 handicapped, plus 5 buses. On any given day we are at capacity; during special events and beautiful days, we are into overflow (and we have no overflow space). We feel that an additional 200 (perhaps more) stalls are needed, but we seek guidance from the master plan designer(s) to sort it all out.

We feel that property line limitations, the urge to control normal visitor flow through a single entrance, and increasing distance from car to garden entrance will lead to the development of a decked parking structure in the southern part of the existing parking lot to accommodate the vehicles of our visitors. Our goal would be to make this structure technologically innovative, attractive and “green”; attaining some degree of LEEDS certification, if possible for this type of structure, should be considered intrinsic. In a practical sense, achieving this goal will go a long way to winning approval from the public and design review committees.

Vehicular circulation into and out of the site, and drop-off areas near the Garden Center, have been recently investigated as part of a design charrette for the Blount Plaza. We will share the results of this exercise, which also looked into the question of our currently having sufficient and appropriately-located handicapped parking, with the successful master planning firm.

Alternatively, other, different solutions to our parking dilemma should be briefly considered, including the investigation of off-site parking (at the adjacent zoo, for instance), public shuttles, opening up the Cahaba Road gate (Lawler Gates), creating a parking area on another part of The Gardens' site, etc. These have been discussed for a number of years, and while we welcome the opportunity to finally "put them to bed", we do not wish to miss a possible opportunity. In any case, this master plan must be developed to a degree that fully delineates, communicates, illustrates and/or explains the parking concepts introduced by the master plan designer(s), especially where elements of green technology and sustainability are concerned.

▪ Restaurant

A restaurant, operated under a lease agreement with the city, occupies our Garden Center building. Expansion of a small existing outside terrace is envisioned and might incorporate upgrades to an adjacent vending machine area and a service area behind the Garden Center. This master plan must be developed to a degree that fully delineates, communicates, illustrates and/or explains the concepts for this area introduced by the master plan designer(s).

▪ Site Circulation

- ✓ Pedestrians: The configuration of the site and the central location of the existing Garden Center building and associated parking have created a roughly U-shaped area in which all the gardens are located. A loop-type circulation pattern for pedestrians – one which maximizes experience while minimizing a retracing of steps – is possible but not well-defined. Future changes must enhance pedestrian experiences and create pedestrian "circuits" that are both comprehensive and non-repetitive.

Of primary importance is the need for us to comply with ADA regulations and maximize barrier-free access; which currently is virtually non-existent. This is obviously critical for any new work, but also important for providing access to as many existing features as possible, especially the Gardens of Collections along the site's western edge. A loop-type system would be desirable, but may not be possible to execute.

- ✓ Vehicles: To a large extent, certain major pedestrian circulation routes must support maintenance and service vehicles, as well as people. In addition, our aging demographic has led us to purchase a small tram. Not yet in service, it seems logical that this would also flow in a loop-type fashion normally, with strategically located turn-around points for occasional use. All future changes must respect and enhance this.

In all cases, this master plan must be developed to a degree that fully delineates, communicates, illustrates and/or explains the circulation concepts introduced by the master plan designer(s), including topographic alterations, as expressed in garden, feature and/or facility design.

▪ Special Events

Special events of size, including an annual spring plant sale (The Friends' largest fund raising event), an annual Earth Day celebration, concerts, performances and the like, are not easily facilitated due to the physical parameters – mostly designed – of our site. This is particularly true for The Formal Garden, which would seem to be an ideal location for these activities, but does not graciously accommodate them. Accessibility (pedestrian and vehicular), proximity of electrical power, ease of set-up and breakdown, evening use (including crowd control and

lighting), and safe and controlled access to and from parking areas, are all problematic. In addition, smaller events and gatherings are not easily facilitated in other garden areas throughout the site.

Accommodations for large and small events must be made and these goals are described below under *Detailed Program Requirements & Considerations for Specific Gardens, Features and Facilities*. This master plan must be developed to a degree that fully delineates, communicates, illustrates and/or explains the concepts introduced by the master plan designer(s) that will facilitate special events, including topographic alterations as expressed in garden, feature and/or facility design.

Facilities

Of two major buildings/complexes on the site, one, the Garden Center, has seen several additions, including a substantial 1998 expansion. It is not anticipated that this master plan update will include any work on this structure, except regarding a potential interface as described below under “Barber Alabama Woodlands”, which may result from completion of the Garden Center’s second floor (work that will not alter the existing building’s footprint). The other major building has remained largely unchanged since 1963: our conservatory with its associated plant production, outside staff and maintenance areas. Materials and construction techniques here have not stood well the test of time, or kept pace with technological changes and growth of the overall facility. Major changes are required. (See also the enclosed spreadsheet and Conservatory Needs Assessment Report by Montgomery Smith, Inc. for more detail.)

▪ Conservatory

Our 1963 Conservatory buildings require extensive renovation, including work on structural elements, utilities, environmental controls, inside planting exhibits, circulation areas, restrooms and glazing, all of which will be handled by Smith and his team, and are not part of this master plan. Alternative energy sources are being investigated as well, as are certain green construction techniques that may be included in that work. Additions to the Conservatories (2, 40x40’ end units) proposed by Smith are under strong consideration, but the master plan update may briefly consider appropriate alternatives to that layout. Finally, this master plan should propose a barrier-free and functional solution for the Conservatory entrance. All solutions must be developed to a degree that fully delineates, communicates, illustrates and/or explains the concepts introduced by the master plan designer(s) that will facilitate the renovation/reconstruction of the Conservatory, especially where elements of green technology, sustainability, ADA compliance and topographical alterations are concerned.

▪ Plant Production, Outside Staff and Maintenance Areas

These facilities, currently behind the conservatory (including a head house, production greenhouses, and storage buildings), also date from 1963, with some minor later additions, and also require renovation/replacement. We feel that despite the benefits of their current location, the space they occupy might serve a better use, possibly a rentable garden space suitable for day and evening events. In such a case, a new location and layout for them (in whole or in part) would need to be addressed in the master plan. In either event, achieving some degree of LEEDS certification, if applicable to these types of structures, must be considered a goal for new work. This master plan must be developed to a degree that fully delineates, communicates, illustrates and/or explains the concepts introduced by the master plan designer(s) that will facilitate the renovation/ reconstruction of the plant production, outside staff and maintenance areas, especially

where elements of green technology, sustainability, ADA compliance and topographic alterations are concerned.

Gardens

Existing gardens are diverse in type, display and scale, largely following the layout and spirit of the garden room concept of Robert Marvin & Associates' 1983 master plan. Marvin deftly built on existing strengths, including the Dunn Formal Rose Garden, Kaul Wildflower Garden, and Japanese Gardens, adding intensive collections-based gardens of popular southern plant groups. Taken as a whole, these gardens present a beautiful, surprising, intimate and grand experience, with good (sometimes excellent) visual and physical connections between the various spaces.

Existing gardens at BBG easily fit into three interpretive, stylistic and/or physical types. New gardens must respect and enhance these distinctions, using the well-established gardens mentioned above as hubs for expansion, and must creatively incorporate integrated stormwater management concepts, where possible. We are also keenly interested in providing an increasingly diverse "menu" of hardscape examples and have made some recent progress; future work should follow this lead. In addition, barrier-free access to all new gardens is required, and some degree of retrofitting of existing gardens is needed for compliance with ADA regulations.

The three identified garden types are as follows:

- **Gardens of Nature**
 - ✓ Existing examples: Kaul Wildflower Garden, Barber Alabama Woodlands
 - ✓ Proposed: A series of Alabama Habitat Gardens
- **Gardens of Culture**
 - ✓ Existing examples: Japanese Gardens, *Southern Living* Garden, Formal Garden
 - ✓ Proposed Gardens: Pass-along Plants Garden/Ruin; Persian, or Moorish Garden
- **Gardens of Collections**
 - ✓ Existing examples: Fern Glade, Jemison Lily Garden, Rose Gardens (2)
 - ✓ Proposed Gardens: except for a possible "Conifer Garden", new collections gardens are not proposed at this time; rather, new plant collections and/or additions to existing collections will be integrated into and throughout other gardens as appropriate.

Areas currently not under cultivation must also be addressed and may be reconfigured as additional proposed gardens, expansions of adjacent gardens or for other uses (including the aforementioned outside staff and maintenance facilities). In all cases, this master plan must be developed to a degree that fully delineates, communicates, illustrates and/or explains the concepts introduced by the master plan designer(s) that will facilitate new garden construction, especially where elements of stormwater management, ADA compliance and topographical alterations are concerned.

Stormwater

Holistic and extensive stormwater management improvements are required throughout the site. On-site stormwater runoff sources must be managed. We desire to employ a wide variety of techniques to create and/or enhance a diverse range of plant habitats, exhibits, displays and/or collections, in existing gardens and especially in new gardens such as the proposed Alabama Habitat Gardens (AHG). Examples include:

- **Detention/retention basin** = AHG Cypress Pond

- Slope of basin = AHG Dolomitic Limestone Glade
- Overflow area = AHG Alabama Pitcher Plant Bog
- Restored stream (portion) = AHG Cahaba Lily Shoal
- Flooded Swamp = Barber Alabama Woodlands (existing with proposed expansion)
- Flooded Lowlands and Pond = Japanese Gardens
- Vegetated Swales (bioswales) = Curry Rhododendron Garden, Asian Glade, Fern Glade, et al. (all existing); Abrams Rhododendron Species Garden (proposed feature)
- Existing Maintenance Area = Biofiltration area
- Re-constructed Sonat (entrance) Lake = ?

In all cases, this master plan must be developed to a degree that fully delineates, communicates, illustrates and/or explains the concepts introduced by the designer(s) that will facilitate a holistic, comprehensive, innovative, functional, educational and beautiful stormwater management system as expressed in garden, feature and/or facility design.

Vision

Our vision is to make Birmingham Botanical Gardens one of the preeminent public gardens in the country. Part of this is *doing what we do better than any other public garden*, by expanding on our unique strengths and taking advantage of our opportunities; not merely trying to build a bigger “this” or a more elaborate “that” than Public Garden x. Recent strategic planning sessions identified the following strengths and opportunities of BBG (listed alphabetically):

STRENGTHS

- Beauty: gardens, living collections, natural and created
- Board (volunteers) & Staff: leadership and commitment
- Community Asset: reputation
- Programming: education, library, collections
- Support: volunteers, financial, private and community

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OPPORTUNITIES

- Collaborations: environmental groups, universities
- Change the Regional Paradigm: conservation, natural resource use, stormwater, beauty
- Transportation: public links
- Full Potential of Garden Center/Gardens: #1 regional horticultural/environmental resource
- Stronger Financial Base/Support: planned giving, business partners, tributes, memberships

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This new master plan must delineate and dictate the innovative, original, education-driven, environmentally sound, user-friendly, diverse and beautiful physical improvements that will pave our way to realizing the physical characteristics that will help us achieve our vision.

M O R E . . .

DETAILED PROGRAM REQUIREMENTS
& CONSIDERATIONS FOR
SPECIFIC GARDENS, FEATURES AND FACILITIES

Detailed programmatic design elements are listed below for each garden and major facility, and are indicated with a “■” bullet point. In some cases, ongoing work not specifically required as part of the master plan is listed for informational purposes or to avoid potential conflict, and is indicated with a “✓” bullet point. For additional detail on the Japanese Gardens Renovation and Conservatory and Plant Production, Outside Staff and Maintenance Areas, please see the enclosed reports and spreadsheet. Garden descriptions, including history and purpose, are at www.bbgardens.org.

GARDENS OF NATURE

BARBER ALABAMA WOODLANDS

- Control and direct vehicular traffic.
- Determine feasibility of increasing stormwater detention capacity (to capture parking lot and deck runoff) upslope NE of the existing stream, runoff pools and swamp, and delineate proposed structure(s).
- Reconcile physical and visual relationships of north entrance to proposed expanded outdoor restaurant terrace and vending area.
- Reconcile road/entrance interfaces.
- Reconcile potential interface with the second floor expansion of the Garden Center, relative to a “barrier-free tree canopy walk” that would disembark from the building’s second floor, extend over the service road, and into the woodland.
- Reconcile with proposed improvements in, or expansion of this garden into, the uncultivated area across asphalt road W of this area.
- Provide for barrier-free pedestrian circulation and/or experience as required.
- ✓ Ongoing plantings.

BOG GARDEN – and adjacent uncultivated areas, including the stream corridor

- Create a coherently linked series of new gardens based on unique Alabama ecosystems and incorporating innovative, attractive, functional and controllable stormwater detention/retention structure(s) and/or naturally-fed water features: Alabama Habitat Gardens (AHG).
- Incorporate an area for Native American cultural exhibits and interpretation.
- Facilitate the use of runoff storage (in whole or in part) for irrigation.
- Incorporate barrier-free pedestrian access and vehicular access, including from the entrance drive – through this space – to the Formal Garden, preserving the existing bridge if possible.
- Incorporate gathering/seating space for school classes (max. 75 students).
- Achieve a strong relationship with the Kaul Wildflower Garden.
- Reconcile physical and visual relationships to adjacent uses, existing and/or proposed.
- Reconcile road and culvert issues.
- Reconcile entrance/road interfaces.
- Control and direct vehicular traffic.
- Address residential buffer and Lane Park Road buffer.
- Determine feasibility/need for AHG public activity center (building w/rest rooms) and “satellite” maintenance/material/parking area, possibly terminating the Garden Center/Formal Garden axis.

KAUL WILDFLOWER GARDEN

- Provide barrier-free access through lower loop (Quarry Path) and into gazebo.
- Control and direct vehicular traffic.
- Reconcile off-site water issues.
- Reconcile road and culvert issues.
- Reconcile entrance/road interfaces.
- Address residential buffer and Lane Park Road buffer.
- Create focal point/terminus along axis from Conservatory through Hess Camellia Garden.
- Reconcile physical and visual relationships to rest of AHG.
- Determine feasibility/need for AHG public activity center (w/rest rooms) and “satellite” maintenance/material/parking area.
- ✓ Ongoing plantings.
- ✓ Repairs to stonework along stream channel.
- ✓ Investigations to achieve historic garden status.

GARDENS OF CULTURE

BLOUNT PLAZA

- Reconcile interface with expanded/upgraded outdoor restaurant terrace, enhance cross-axis through Dunn Formal Rose Garden and create a layout for the upper half of plaza, including planting areas.
- Provide for barrier-free pedestrian circulation and/or experience as required.
- Control and direct vehicular traffic.
- Facilitate evening use, e.g., cocktail parties for 300, gathering/queuing areas for entrance, concerts, plays and the like in the Formal Garden) and especially plan for safe and controlled movement to and from parking lot (this element has been addressed through the charrette as well).
- Respect “Moon Tree” (80'+ tall existing *Platanus occidentalis* that, as a seedling, orbited the moon on Apollo 14; planted July 1976).
- Respect existing *Ginkgo biloba* and *Quercus alba*.
- Reconcile barrier-free access to the west, through the upper half of the plaza, and if possible to the north, through the Cherry Allee.
- Consider potential interface with off-site parking, Cahaba Road entrance, etc.
- Respect sculpture placement.
- ✓ Reconstruction of *Granite Garden* (sculpture) plumbing.
- ✓ Redesign of lower plaza space, including drainage, signage, seating, map/brochure stand, plantings, paving, lighting, parking interface, etc.

ENABLING GARDEN

- Determine expansion possibilities for this garden, and possible relocation site (due to new conservatory houses), to facilitate larger Horticultural Therapy program.
- Control and direct vehicular traffic.
- Reconcile physical and visual relationships to Conservatory, Formal Garden, Parterre Garden, and other adjacent uses, existing and/or proposed.
- Reconcile road/entrance interfaces.
- ✓ Ongoing planting (possible green roof on gazebos).
- ✓ Horticulture Therapy Program.

FORMAL GARDEN

- Control and direct vehicular traffic.
- Incorporate barrier-free pedestrian access throughout, but especially into the Conservatory.
- Incorporate vehicular access, including from the entrance drive into this garden, preserving the existing bridge if possible.
- Incorporate “ruined” grouping of old limestone columns (to be donated) and gathering/viewing space along the N-S axis from the Garden Center and plaza belvedere.
- Incorporate symmetrical Parterre Gardens, substantially per the previous master plan.
- Reconcile physical and visual relationships to AHG, Conservatory and other adjacent uses, existing and/or proposed (including the possible “Conifer Garden”).
- Retrofit Conservatory entrance to function as a gathering space and as an elevated stage for concerts, performances, exhibits, etc.
- Reconstruct the lawn and associated drainage and irrigation systems to support various active uses and special events such as concerts, other performances, volleyball tournaments, erection of large tents to facilitate plant sales, art shows and the like, etc.
- Determine feasibility of diverting stormwater runoff into a modified Sonat Lake.
- Facilitate evening use, especially safe and controlled movement to and from parking lot.

FORMAN GARDEN

- Control and direct vehicular traffic.
- Reconcile physical and visual relationships with AHG, including possible barrier-free connection.
- Reconcile physical and visual relationships to Conservatory, Formal Garden, Parterre Gardens, and other adjacent uses, existing and/or proposed.
- Reconcile road/entrance interfaces.
- ✓ Ongoing planting.

HILL GARDEN – with Kayser Lily Pool and Cochran Water Wall

- Provide for barrier-free pedestrian circulation and/or experience as required.
- Reconcile physical and visual relationships to modified Cherry Allee to west and Formal Garden to south, and other adjacent uses, existing and/or proposed.
- ✓ New plantings and paving repairs.

JAPANESE GARDENS – technically not a part of this master plan update

- Reconcile entrance/road/parking lot interfaces in conjunction with Japanese Gardens Renovation Plan.
- ✓ Renovation work.

LITERATURE GARDEN (new feature; potential location undetermined)

- Create a garden for permanent and temporary exhibits and displays of plants featured in various forms of literature, including religious texts and works of fiction or history.
- Incorporate barrier-free access.
- Incorporate seating.
- Reconcile physical and visual relationships with adjacent areas.

LITTLE ONES’ MEMORY GARDEN

- Provide for barrier-free pedestrian circulation and/or experience as required.
- Reconcile physical and visual relationships with plant production, outside staff and maintenance areas, if relocated, and existing upper road.

- ✓ Ongoing plantings.

MCREYNOLDS GARDEN

- Reconcile entrance/road interfaces.
- Control and direct vehicular traffic.
- Reconcile possible relationship with Lawler Gates entry and off-site parking.
- Reconcile with proposed improvements in uncultivated area S of this garden.
- Provide for barrier-free pedestrian circulation as required.
- ✓ Ongoing plantings.

RUSHTON GARDEN

- Reconcile visual and physical relationship to adjacent service area and expanded/upgraded outdoor restaurant terrace and vending area.
- ✓ Ongoing plantings.

SOUTHERN LIVING GARDEN

- Consider possible location for proposed Pass-along Plants Garden/Ruin, perhaps in the presently uncultivated lawn area and employee parking area across the existing service road, to the N of this garden (former site of caretaker's house).
- Consider creation of "definitive" southern shrub border (could be in another location).
- Provide for barrier-free pedestrian circulation and/or experience as required.
- Reconcile entrance/road interfaces.
- Control and direct vehicular traffic.
- Reconcile physical and visual relationships with plant production, outside staff and maintenance areas, whether relocated or not, and existing upper road.
- Reconcile lawn area and employee parking north of this garden.
- Reconcile Cahaba Road service entrance and drive.
- Reconcile possible relationship with Lawler Gates entry and off-site parking areas.
- ✓ Ongoing plantings.

THOMPSON ENTHUSIAST'S GARDEN

- Control and direct vehicular traffic.
- Reconcile physical and visual relationships with AHG, including possible barrier-free connection.
- Reconcile physical and visual relationships to Conservatory, Formal Garden, Parterre Garden, and other adjacent uses, existing and/or proposed.
- Reconcile road/entrance interfaces.
- ✓ Ongoing planting.

UNCULTIVATED AREA: west of Barber Alabama Woodlands and south of McReynolds' Garden

- Reconcile potential uses, including possible expansion of Barber Alabama Woodlands, and/or creation of Pass-along Plants Garden/Ruin.
- Control and direct vehicular traffic, including a less-straight layout of the existing asphalt road running to the Japanese Gardens.
- Reconcile physical and visual relationships with McReynolds Garden, Asian Glade and Barber Alabama Woodlands.
- Reconcile entrance/road interfaces and road buffer.
- Provide for barrier-free pedestrian circulation and/or experience as required.

GARDENS OF COLLECTIONS

ABROMS RHODODENDRON SPECIES GARDEN

- Provide for barrier-free pedestrian circulation and/or experience as required.
- Determine feasibility of releasing runoff into current maintenance area/proposed new garden area and delineate proposed structure(s).
- Reconcile road/entrance interfaces.
- Control and direct vehicular traffic.
- Reconcile physical and visual relationships with plant production, outside staff and maintenance areas, whether relocated or not, and existing upper road.
- ✓ Ongoing plantings.
- ✓ De-channelize and enhance existing stormwater swale (concrete water feature).

ALL-AMERICA SELECTIONS DISPLAY GARDEN

- Reconcile inclusion in, or relationship to, Parterre Gardens.
- ✓ Seasonal planting.

BRUNO VEGETABLE GARDEN

- Create a layout for a new, expanded Bruno Vegetable Garden.
- Determine feasibility of releasing runoff into current maintenance area (proposed new garden area w/ biofiltration area) and delineate proposed structure(s).
- Provide for barrier-free pedestrian circulation and/or experience as required.
- Remove Meadow (Garden Clubbers' Meadow Garden), gazebo and fruit tree display (except *Ficus carica*) to create room for expansion.
- Incorporate minimal shrub fruits.
- Expand garden area to widest perimeter.
- Reconcile physical and visual relationships with adjacent AHG and Hess Camellia Garden.
- Incorporate a herbivore enclosure for growing Discovery Field Trip crops (peanuts, sweet potatoes, cotton, corn, squash) and Three Sisters crops (corn, beans and squash), to protect same from predation (chipmunks, squirrels, raccoons, et al.).
- Incorporate expanded compost area/display.
- Incorporate gathering/seating space for school classes (max. 75 students at one time).
- Allow for small equipment access.
- Allow small vehicle pass-through space from front of conservatory to rear (may be addressed on opposite side of Conservatory).
- Reconcile road/entrance interfaces.
- Control and direct vehicular traffic.
- Accommodate and incorporate expanded Herb Terrace above.
- Maintain/enhance strong axial connection to Hess Camellia Garden and Conservatory.
- ✓ Discovery Field Trips: September-December

CRAPE MYRTLE GARDEN

- Garden may need to be removed/relocated due to conservatory expansion.
- Reconcile physical and visual relationships to Conservatory, Formal Garden, Parterre Gardens, and other adjacent uses, existing and/or proposed.
- Reconcile road/entrance interfaces.
- Suggest opportunities to expand crape myrtle collection in adjacent areas.
- Reconcile use of uncultivated area to west.

Note: The crape myrtle (*Lagerstroemia* spp.) is designated the official tree of Birmingham.

“CONIFER GARDEN” (E of Crape myrtle Garden; area not officially named)

- Provide for barrier-free pedestrian circulation and/or experience as required.
- Reconcile physical and visual relationships to Conservatory, Formal Garden, Parterre Gardens, Crape Myrtle Garden, and other adjacent uses, existing and/or proposed.
- Reconcile road/entrance interfaces.
- ✓ Ongoing planting.
- ✓ Stone stairs.

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CURRY RHODODENDRON GARDEN

- Provide for barrier-free pedestrian circulation and/or experience as required.
- Reconcile entrance/road interfaces.
- Control and direct vehicular traffic.
- Reconcile physical and visual relationships with plant production, staff and maintenance areas, whether relocated or not, and existing upper road.
- ✓ Ongoing plantings.
- ✓ Repairs to Curry Pool.

DUNN FORMAL ROSE GARDEN

- Create barrier-free entrance, possibly from the south along the north-south axis. This entrance point might relate spatially and axially to an upgraded outdoor restaurant terrace and vending area.
- Respect “Moon Tree” (80'+ tall existing *Platanus occidentalis* that, as a seedling, orbited the moon on Apollo 14; planted July 1976).
- Respect existing *Ginkgo biloba* and *Quercus alba*.
- Incorporate changes in Cherry Allee, along the eastern border, including possible barrier-free access along this slope.
- ✓ Ongoing plantings.
- ✓ Hedges to enclose garden on south side.

FERN GLADE

- Provide for barrier-free pedestrian circulation and/or experience as required.
- Reconcile entrance/road interfaces.
- Control and direct vehicular traffic.
- Reconcile physical and visual relationships with plant production, outside staff and maintenance areas, whether relocated or not, and existing upper road.
- Plan for expansion/segue into AHG and/or Kaul Wildflower Garden through current “unclaimed” area N of this garden.
- Address buffer/upper road/garden interface.
- Relocate/enhance/combine local work/material/parking area.
- ✓ Ongoing plantings.
- ✓ Improvements to lower pool and seating area.

HERB TERRACE

- Accommodate expansion into the existing Meadow Garden and/or adjacent “unclaimed” areas.
- Incorporate and facilitate sensory experiences.
- Provide barrier-free access to topmost and bottommost levels.
- Reconcile physical and visual relationships with adjacent AHG.

- Determine feasibility of releasing runoff into current maintenance area/proposed new garden area and delineate proposed structure(s).
- Reconcile road/entrance interfaces.
- Maintain strong axial connection to Hess Camellia Garden, and other facilities, if not relocated.

HESS CAMELLIA GARDEN

- Provide for barrier-free pedestrian circulation and/or experience as required.
- Reconcile physical and visual relationships with AHG, including possible barrier-free connection.
- Enhance internal/external views from uppermost entry.
- Better accommodate weddings at Davidson Camellia Fountain.
- Control and direct vehicular traffic.
- Determine feasibility of releasing runoff into current maintenance area/proposed new garden area and delineate proposed structure(s).
- Reconcile entrance/road interfaces.
- ✓ Ongoing plantings.
- ✓ Collections additions to extend camellia bloom season.
- ✓ Bench and surface repairs at Sasanqua Circle.

Note: The camellia (*Camellia japonica*) is designated the official state flower of Alabama.

HOSTA WALK

- Provide for barrier-free pedestrian circulation and/or experience as required.
- Reconcile physical and visual relationships with adjacent areas.
- Reconcile physical and visual relationships with plant production, outside staff and maintenance areas, whether relocated or not, and existing upper road.
- Address buffer/upper road/garden interface.
- ✓ Recently renovated.

IRELAND OLD-FASHIONED ROSE GARDEN

- Create barrier-free access through/around Moon Gate.
- Respect existing *Pinus taeda* specimen near center.
- Control and direct vehicular traffic.
- Reconcile rear exit; make barrier-free if possible.
- ✓ Ongoing plantings.
- ✓ Repair drainage.
- ✓ Re-configure/enlarge bluestone walk and terrace under Rose Arbor to better accommodate weddings; incorporate climbing roses.
- ✓ Create rose structure to terminate main axis.
- ✓ Determine surface treatment alternatives to turf and delineate.

IRELAND IRIS GARDEN

- Provide for barrier-free pedestrian circulation and/or experience as required.
- Determine feasibility of releasing runoff into current maintenance area/proposed new garden area and delineate proposed structure(s).
- Reconcile road/entrance interfaces.
- Control and direct vehicular traffic.
- Reconcile physical and visual relationships with plant production, outside staff and maintenance areas, whether relocated or not, and existing upper road.
- Reconcile lawn area and employee parking south of this garden (remove and/or relocate).

- Reconcile Cahaba Road service entrance and drive.
- ✓ Ongoing plantings.
- ✓ Repairs to gazebos.

JEMISON LILY GARDEN

- Provide for barrier-free pedestrian circulation and/or experience as required.
- Determine feasibility of releasing runoff into current maintenance area/proposed new garden area and delineate proposed structure(s).
- Reconcile road/entrance interfaces.
- Control and direct vehicular traffic.
- Reconcile physical and visual relationships with plant production, outside staff and maintenance areas, whether relocated or not, and existing upper road.
- ✓ Ongoing plantings.
- ✓ Drainage repairs.

BUILDINGS & OTHER FACILITIES

ARRINGTON CHILDREN'S PLANT ADVENTURE ZONE – enclosure at S end of Garden Center

- Reconcile Barber Alabama Woodlands/Arrington Children's Plant Adventure Zone/road/parking interfaces.
- ✓ Design for this space.

CAFÉ DE FRANCE – restaurant inside Garden Center

- Reconcile expansion of outdoor terrace and enhancement (and screening) of vending area.
- Reconcile physical and visual relationship with adjacent parking/service area.
- Reconcile physical and visual relationship with Dunn Formal Rose Garden (potential to enhance axis), Rushton Garden and Barber Alabama Woodlands.
- Facilitate evening use and controlled and safe movement to and from parking lot.
- ✓ Existing restaurant, operated under lease agreement with the Park Board; lease expires 2011.

CONSERVATORY – exterior only, except as noted

- Reconcile physical and visual relationships with plant production, staff and maintenance areas, and other adjacent areas, whether relocated or not, whether existing or proposed.
- Control and direct vehicular traffic.
- Provide for barrier-free pedestrian circulation and/or experience as required.
- Increase usability of space.
- Increase visitor "creature comforts" and safety.
- Provide input on programmatic themes/collections.
- Provide for barrier-free public restrooms.
- Facilitate evening use and safe and controlled access to and from parking areas.
- See also Formal Garden

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GARDEN CENTER

- Reconcile Barber Alabama Woodlands/Arrington Children's Plant Adventure Zone/Library entrance/road/parking interfaces.
- Control and direct vehicular traffic.
- Incorporate stormwater runoff capture/treatment from building.

- ✓ Entrance Garden design and installation, including circulation from the parking lot and landscape improvements to lower drop-off area.
- ✓ Installation of second floor over Blount Education Center for additional offices and meeting space.
- ✓ Conversion of existing Orientation Room (opens to Blount Plaza) to storage area.

GERLACH PLANT INFORMATION CENTER – inside Garden Center

FYI only: This feature will transform a presently underutilized first floor space – the former entrance lobby which exits onto the Blount Plaza – into a facility that will link our non-living collections (the resources of the Botanical Gardens Library, the largest of its kind in the southeast, and those of Auburn University, through Extension staff and Master Gardeners) with our living collections outside.

Installation of Phase I (2006) addressed physical changes to the space, including floor, ceiling and wall repairs and upgrades, and the installation (in part) of a wall exhibit system. Phase II (not scheduled) will address the technological side, perhaps including publicly-accessible computer terminals and on-demand printing of documents retrieved from plant, library and reference databases.

LANE PARK ROAD ENTRANCE AND SONAT LAKE

- As part of the overall stormwater management improvements, reconstruct Sonat Lake (rename) to function as an innovative, attractive and functional stormwater retention and biofiltration structure for adjacent areas.
- Provide for barrier-free pedestrian circulation and/or experience as required.
- Establish pedestrian connections to other areas.
- Determine feasibility/need to relocate/reconfigure entrance drive to be on axis with Conservatory and Queen’s Gates (Formal Garden), or another location.
- Control and direct vehicular traffic.
- Incorporate barrier-free pedestrian access and vehicular access from the entrance drive to the Formal Garden, preserving the existing bridge if possible.

LAWLER GATES

- Reconcile function as secondary entrance, including relationship to off-site parking and/or shuttle service.
- Control and direct vehicular traffic.
- Provide for barrier-free pedestrian circulation as required.

PARKING LOT

- Evaluate existing parking conditions and make recommendations for additional capacity.
- Create a plan for an innovative parking deck structure, incorporating green technology.
- As part of the overall stormwater management improvements, incorporate an innovative, attractive and functional stormwater retention and/or biofiltration system for this structure.
- Reconcile physical and visual relationships with Lane Park Road and existing (remaining) parking areas.
- Reconcile physical and visual relationship with Garden Center, its entrances, Rushton Garden and Barber Alabama Woodlands.

PLANT PRODUCTION, OUTSIDE STAFF AND MAINTENANCE AREAS

Determine feasibility of relocating these facilities, in whole or in part, including bulk materials storage, staff offices and rest rooms, to perimeter areas along western property border (or another location) and proceed with design path (page 19). See also appended spreadsheet for greater detail.

Path 1: Renovation

- ✓ Reconfigure, expand and upgrade all plant production, outside staff and maintenance facilities in the same area.

Path 2: Reconstruction

- Create layout for new plant production, outside staff and maintenance facilities in another area or areas.
- Determine the feasibility of creating a new outdoor use area behind the Conservatory (Moorish or Persian style) with all necessary support functions and elements, suitable for erecting a large tent and holding weddings and other special events, or a part or parts thereof.
- Facilitate evening use of the new garden space, and safe and controlled movement to and from parking areas.
- As part of the overall stormwater management improvements, incorporate an innovative, attractive and functional stormwater retention and/or biofiltration structure for this feature and adjacent areas.

In Either Case...

- Control and direct vehicular traffic.
- Increase usability of space.
- Incorporate green technologies such as wastewater/runoff treatment, and alternative energy sources.
- Increase staff “creature comforts”, safety and efficiency.
- Achieve ADA compliance.
- Incorporate large, simple composting area for on-site leaves, etc.
- Incorporate additional 30x60’ storage with maintenance vehicular access for Nature Conservancy field office.
- Reduce maintenance and energy/resource use through material selection and technological innovation.

“THE POINT” – presently undeveloped area at the intersection of Cahaba and Lane Park Roads.

- Create a feature incorporating seasonal color displays and branding signage, specifically a sign that can be programmed remotely with changeable messages.
- Reconcile feature/Japanese Gardens interfaces.

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WELL

At present, all water used on The Gardens’ site emanates from a public water supply, via the Birmingham Water Works and is supplied for a fee. Potable water and irrigation water cost the same and we feel that the installation of a well – for irrigation purposes – would help to keep down operational costs. We anticipate contacting a well specialist to examine the property and recommend a location for such a well. Understandably, this will lead to retrofitting of irrigation lines throughout the site.
