# Central Park Master Plan

Louisville, Kentucky

for

# Louisville Metro Parks



July 27, 2005

Bentley Koepke Inc. Fearing + Hagenauer Architects, Inc. Herbert P. Fink & Associates

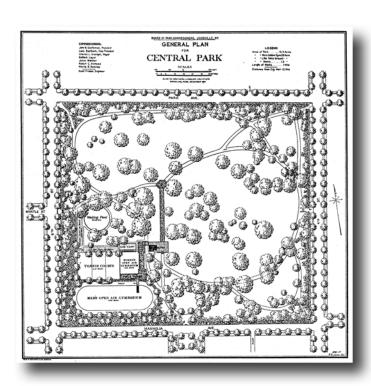
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# MISSION STATEMENT

To create an urban park that reflects the design intent of original Olmsted Brothers plan of 1904 and recognizes the needs and desires of the community today and into the future. That the park generates a "sense of place" contextual to the neighborhood and quietly inspires those that visit the park.



# Central Park Master Plan

# PLANNING STATEMENT

Central Park was designed in 1904 by the Olmsted Brothers and continues to provide a positive park experience with a variety of recreational opportunities essential to the quality of life in the Old Louisville Neighborhood District. Our master planning charge is to recognize long-term improvements and opportunities that add recreational value to the park while maintaining the intent of the original Olmsted Brothers Plan.

The objective of the planning team is to fulfill the communities long term goals for Central Park . Our review of past park development and recreation improvements has revealed the physical evolution of the park and speaks to the parks current configuration. In an effort to incorporate the neighborhood's desires for the park, we interviewed owner identified user groups, surveyed and held public meetings for gathering community input. Relevant statistical information and historic input was collected and presented to the design team by Louisville Metro Parks and their various departments to assist the master planning teams understanding of the parks functional and physical assets and liabilities.

Public meeting notes are available upon request from Metro Parks and are not reproduced as part of this document. Results of the mail-in community survey was to allow for private, individual, contribution to the master planning process and is not for publishing.

The Last Master Plan update for Central Park is dated August 1990 some of the elements of that plan no longer apply, need to be changed, and/or need updating. It is also available for review at Metro Parks offices.

The neighborhood feels that current use areas in Central Park function well as they occur in the park today and as they relate to each other. The use areas work well with the existing topography in Central Park and relate well to the adjacent neighborhood.

The park was originally designed and can currently be described as a green oasis within the urban fabric of Old Louisville. This green oasis is predominantly a "trees and lawn" landscape with minor intrusion of buildings and other site structures. The park offers a quiet respite from city life, is appropriately scaled and is well attended and loved by the community.

To preserve the character of this park one must understand that this is a passive neighborhood park which has intentionally limited active recreational uses.



# Central Park Master Plan

# KEY ELEMENTS

The components to the right represent the key elements of study within this master plan.

# Proposed Master Plan

#### Park Perimeter

Historic Picket Fencing

Pedestrian entrances and signage

Planting

Irrigation

## Park Interior

Restoration and/or replacement of walks

Lighting

Grading and drainage

Furnishings - benches and trash receptacles

**Drinking Fountains** 

## Streetscape

Sidewalks, Curbs and Lawn Curbs

Bury overhead utilities

## **Amphitheater**

Demo

Seat walls and steps

Stage platform and utility upgrade

Access drive

Lighting and sound truss

Amphitheater walks and hardstand

#### Historic Park Building

Existing east and west wing renovations for park use

Building addition for park use

Courtyard flex space

Reconfiguration of main entrance

Garage demo and parking improvements

### Play Area

Water Play

2-6 year old area

6-12 year old area

## Pergola

Existing pergola repair and refurbishment

New pergola

#### Tennis Courts

Repair surfaces for play

Improve lighting

Tournament Area

Central Park

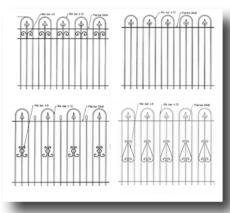
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Louisville, Kentucky 2005

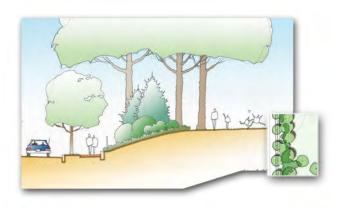
# PERIMETER IMPROVEMENTS

#### **Observations**

The landscape image and quality at the perimeter of the park has deteriorated over the years and although some improvements have been made in the past these improvements have not addressed the entire perimeter. It should be



noted that the parks predominantly green appearance is an asset to the community and has been maintained as such over the years. The current park edge lacks continuity as seen from the various sides. The improvements at the St. James entrance start to emulate the Olmsted Plan intent for the perimeter treatment of the park with its increased planting. The Olmsted Plan called for the park to be completely fenced by wrought iron and supplemented with plantings of hardy trees, shrubs, and perennials. The plan also included lawn curbs, street curbs, brick walks and steps. Many of the later elements are still in place, however the wrought iron fence and perimeter planting have been removed many years ago. Following today's standard practice for safe design it is no longer appropriate to completely fence and plant the entire



perimeter of the park as proposed by the Olmsted Plan. The perimeter planting and fencing improvements need to be designed to accommodate a free flow of pedestrian movement in and out of the park at the entrances and between them. Proposed fencing is limited to the entrances as decoration only. Fencing and planting should not be continuous. Care should be taken to keep views into the park open for police surveillance by using smaller plants to see over and/or larger plants that can be limbed up to see under. The proposed perimeter improvements are intended to increase "curb appeal" of the park as seen from the street and help control or limit random vehicular access into the park. Signage should be incorporated into each of the pedestrian entrances with primary signage on Magnolia Street at St. James Court.

## **Improvements**

Streetscape

- Repair and/or replace all damaged walks, steps, and limestone street and lawn curbs.
- Remove pavement patches and decommissioned surface mounted utilities and sign posts.
- Implement sidewalk improvements as indicated in the St. James entrance plans prepared by Herb Fink.
- Bury utilities below grade.
- Assess the value of additional street trees based on adjacent tree canopy from within the park.
- Furnish streetscape with conveniently located trash receptacles near the park entrances and at the tennis courts.
- Assess the light requirements for the street and install park walk lights where appropriate and/or needed along the sidewalk.

## Landscaping

- Install four foot tall replica fence sections at entrances.
- Design and install park identification signage.
- Install landscape planting of woody shrubs and perennials to enhance the garden like appearance of the park. Use plants that reflect the early 1900's. Improved varieties are available.
- Develope seasonal interest at the vehicular and pedestrian entrances.

# Central Park Master Plan

# INTERIOR IMPROVEMENTS

#### **Observations**

The interior of the park is densely planted with trees. With the majority of the trees being planted at the time the park was first built. The park has had numerous plantings of trees over the years and is now heavily shades by a mature canopy. This mature canopy has diminished the value of the park by shading the lawns to near extinction in places and by eroding the series of lawn rooms and vistas set up by the original planting plan. The original intent of the Olmsted planting plan was to provide a series of green lawns (rooms) of varied sizes that were defined by the trees and their shadows.

These rooms provide visual relief in the park. The canopy now reads nearly as one canopy from park edge to edge.

The existing walks are laid out (in general) as originally planned and are in various stages of deterioration. Patching and lifting walks to improve drainage may work for the short term but it is inevitable that the walk



system will need to be replaced in total at some point in the near future. The walks are to be replaced with the Historic Concrete Mix and should be held to high standards of construction layout to achieve smooth flowing lines as indicated on the original plan. Adhere to the intent of scoring pattern along the walk and at intersections. When incorporating furniture into the walk or

adjacent to the walk care should be taken to accommodate the continuous geometry of the walk edge. Bump-outs in the walk can detract from the simple curvilinear geometry that makes these walks appear so fluid.

Follow through and complete the lighting and furnishings plan that was started a few years ago. There are several telephone pole mounted fixtures (area lighting) throughout the park used to illuminate



general areas. It is desirable to have these poles and

fixtures removed or replaced with more attractive poles and wide throw cutoff fixtures that screen the lamp from direct view. The goal should be to have enough walk lighting to not need the area lighting. It may be that one or two of the area lighting poles will need to remain as safety requires them to. Lighting and furnishings are to match what has already been installed. Benches are to be placed to accommodate a variety of densities from stand alone to groups of two to three or more depending on the location and adjacent activities. Place drinking fountains as required to accommodate a wide variety of users and locations.

Grading and drainage is adequate in the majority of the park. The north and east sides of the park show the most signs of poor drainage. Standing water can be seen over the walks and well into the lawn areas after a storm. Previously placed under-drainage systems (aquifers) do carry the water off but is not as functional to pedestrians as well directed surface drainage. Part of the drainage



problem is due to the settling of walks or the build up of soils in an already flat area. Yearly truck traffic to the amphitheater has also played a role in the condition of soils and topography which has altered the flow of water over the years.

#### **Improvements**

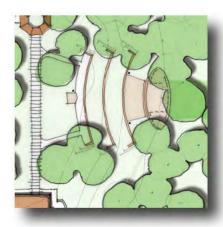
Canopy Tree Management Restoration and/or replacement of walks Lighting Furnishings - benches and trash receptacles **Drinking Fountains** Grading and drainage

# Central Park Master Plan

#### Observations

The Amphitheater has been host to the Kentucky Shakespeare Theater since 1960 and has remained at this location to date. The groups' positive contribution to the park is unquestionably valued by the neighborhood and region as a successful cultural event and its continued

yearly performances are desirable as a park amenity. The theater has evolved over time to its present configuration to include a permanent stage. stage house/set, lighting/sound truss, and seating for approximately 300 people. Its central location has been its strongest suit by being equally distant from street generated



noises and radial from all parking opportunities. Its current location also utilizes the major part of the tree canopy as a backdrop. The amphitheater benefits from being close to the pergola and restrooms of the building. Because the amphitheater architecture was evolutionary and focused primarily on the function of the performance it lacks aesthetic sensibility relative to the building and pergola. The current amphitheater is heavy in mulch and divided numerous times by a 6" timber steps separating the building and pergola from the green park beyond. The built stage is vandalized regularly and presents a liability when not in use. The new amphitheater should be designed to accommodate the Shakespeare Theater and be subordinate to the building and pergola. The goal is to have the amphitheater provide a safer more comfortable place (greener) when the theater is not in use.



theater suggests a simple design of long to integrate the hardscape back into the green softer landscape. These shapes also keep the stage from looking appearing that it has a front and back. It is intended to be omni directional when not

The proposed amphicurves and soft shapes

# **AMPHITHEATER**

in use. It is intended that the stage house be completely removed after each series and that an access drive be built to accommodate vehicular traffic as required for stage operations, set up and knock down. The lighting and sound truss can be overhead or as flanking totems. Each of the theatrical production companies is responsible for providing their own light and sound equipment to be hung off the provided structural system. This simple and elegant design of long curves relies on the high standards of construction layout and implementation. It is important to recognize the power of well executed curvilinear geometry as part of committing to this design. Material choices should be natural in color, stone or tinted concrete. Positive drainage and under-drainage should be planned for all the lawn terraces. Seat walls are to be no more than seat height (16" to 18" tall). Provide for night illumination of the amphitheater when not in use and retain/relocate the C. Douglas Ramey sculpture as part of the new amphitheater layout.

#### Recommendations

- Remove existing amphitheater and associated paths, seating, lighting and stage.
- Improve drainage behind stage
- Provide 2000 square foot new stage area with surface suitable for removable stage set.
- Construct patio area as necessary in front of stage for stage expansion and for dancing at music events
- Provide utilities and removable light and sound stanchions as required for theater performances.
- Add seat height seat walls in slope between pergola and stage, three to four maximum.
- Grass terrace with ample room for blankets and/ or chairs between the walls
- Provide turf reinforced access drive to and from stage

Alternate Location

An alternative location for the amphitheater (shown at above) was studied but was determined unacceptable due to its orientation and proximity to the intersection of Sixth Street and Park Avenue.

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# HISTORIC PARK BUILDING

## Park Building

The buildings consisting of the former pool house and the shelter house and restrooms, now the police station and OLIC, are generally of a style called "Mission" architecture. The term Mission loosely refers to a style assumed to have derived from Spanish Architecture that existed in Florida, the southwest states, and especially California.

The original Spanish Mission Architecture was very simple in construction and would not have been seen as much more than a natural way to build except for its tendencies to use traditional Mediterranean materials and methods, especially the low slope terra cotta tile roof, plaster over a masonry material such as adobe or brick or stone, and its use of the arch, mainly for its low tech strength derived from common materials and ease of construction. Whitewashed plaster with coarse sand or sea shells was the typical final covering. Forms were very simple, edges straight and clean.

Over these things that the architecture tends to share in common, often were applied other elements as time went on. Towers, sometimes for bells, were a common feature, as were embellishments at the point of entry or other important place, such as Greek or Roman columns and even carved stone entablatures. These were added as embellishments serving to place emphasis, and the rest of the structure tended to be very simple. Archways and pergolas were not uncommon as the climate where these things were built tended to need shade for human comfort.

This architecture is very old in America, and in fact may be the first truly architectural style from Europe to come to America, as early as the 1500's. Castillio de San Marco in St. Augustine, Florida dates from the 1600's and fits the style easily.

This early Spanish architecture was largely ignored early in the 19th century. Early settlements in San Diego and San Francisco tended to be in styles popular in the East.

However, beginning in the late 19th century South West and Californian Architects began to rediscover it as a style and it came into use again. This is sometimes referred to as Mission Revival Architecture.

In Mission Revival, form is used more self consciously, windows are cut in composition and less simply for light. Its rise coincides with the rise in the Prairie School of Architecture that was happening in the American Mid West and its influences are similar, both used elements from Arts and Craft, Shingle Style, Art Nouveau and other styles popular at the time.

#### East Wing (OLIC)

The high water mark for Mission Revival came with the various celebrations going on in California, and most specifically the Pan American Exposition of 1915. Buildings at that event took the style to extremes and many are fantasy creations of unprecedented proportions.

How this architecture landed in the Ohio Valley (houses and small park structures exist not only in Louisville in this style, but were built at the same time in Cincinnati and other places, even Dayton, Ohio) I have not determined. There are intriguing connections, however. In the 1880's Frederick Law Olmsted, Sr. was employed to layout Stanford University in Palo Alto, California. It was designed in a sort of Mission Revival Architecture, which was seen as more appropriate to the climate, something Olmsted advocated. There were other involvements by both Olmsted and his sons over the next 20 years culminating in the design of the San Diego World Exposition in 1915 by the Olmsted Brothers.

The dates are very important to our understanding the exact influences on our OLIC complex, if the complex was built in 1904, it cannot have been influenced by the 1915 exposition. However, the exact influences are interesting, but not that important for us.

Our OLIC complex is more residential in scale and style, generally unembellished and with our obvious referent to European traditions, with the exception of the pergola, which is a classic Italian pergola with Doric (Greek Order) columns.

In planning the OLIC seems to me to be influenced by the Prairie School, long narrow spaces with linear rows of windows along each side.

An example of this sort of composition in Prairie School Style is the Robie House in Chicago by Frank Lloyd

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Wright. I am speculating on this some, as the original interior form of the building has been completely obliterated by the present remodeling. Suffice to say, this building form has a great deal of potential for certain community functions and the potential to create a look and feel that associates with the park and its spaces very well.

This linear layout also creates a variety of spatial opportunities on the exterior that can be completed in the landscape, so... like Prairie School architecture this building could be redeveloped pretty easily to flow into the landscape.

For future consideration in doing restoration on the building:

- 1. If an expanded Police Station is needed here at this complex, extensive changes are needed to deliver the police a properly functioning building that is vital to their efficient day to day operation. The linear composition is not appropriate to a police station, and the structure needs to expand considerably to become more dense and bulky. This will necessitate a considerable change in form and feel to the structure. It is not recommended to change this structure to accommodate such a transitory need.
- 2. At which the police will find better quarters within the neighborhood the building can revert back to a community building. If this happens it could be expanded within its own planning style into an enhanced version of itself. Interior clues, potentially a rich source of detail and feel, should be sought as the interior walls are removed. Also, a concerted effort needs to be made with historical societies and other groups to find interior pictures or the original drawings. With this type architecture it was often the case that the inside was more embellished than the out. I would not be surprised to find colorful tile details, or even Rookwood art pottery embellishments.
- 3. It will be necessary to understand Mission Revival precedents with the redevelopment of the structure to maintain the original vision. However, I do not feel an architect must attempt an exact restoration in this case. The community, as well as the original vision itself, might be better served by a kind of cross-pollination of the building with its original precedents. That is we can consider enhancing its function, look and feel as a 1900's structure, its connections to the Prairie School and its influences from Mission Revival.

Any building redevelopment needs to be done hand in hand with the landscape architecture.

## East Wing (OLIC)

The East Wing is built into the southern termination of the pergola. Its style is a sort of Mediterranean or Spanish mission style, popular just after the turn of the century perhaps from influences in California and Mexico, or oddly enough the Spanish American War (1898). Its stucco over brick was a method of construction that had been employed on various styles of architecture for over 100 years by that time. The structure formerly was an open shelter at each of 3 archways. At some time fairly recently it was enclosed and made into indoor space. The inside has been left open with a free standing wall creating an office area and another space presently used as storage.

The building, like the rest of the complex, is plaster over brick with wood trim at the overhangs and a tile roof. At places the plaster needs patching. I did not see problems in the roof, although I would expect there have been over the years, tile is subject to breakage from falling tree limbs or heavy objects thrown onto the roof (even golf balls under the right conditions will break tile).

Because the arches are filled in the way they have been, the East Wing tends to look dark and unused. It does not provide a good termination for the pergola this way either.

Schedule a time to go over the exterior for plaster problems and wood trim replacement as needed (match existing). Assess the roof condition as well to determine remaining life. At the point where the roof needs to be repaired, two courses of action will be available. First, it may be possible to get replacement tiles. Ludowici Tile of New Lexington, Ohio was quite possibly the manufacturer originally and is still in business. They have molds for virtually every tile they have made since their founding and will remake pieces as needed. The tile appears to me to be a variant on Spanish tile, possibly a line Ludowici calls "French Tile". They can be seen at http:// www.ludowici.com. The second option would be to replace the roof with the composite plastic tile we identified for Shelby Park. This option would not be needed until full replacement of the entire roof of the whole complex is contemplated.

Reopen the archways by removing the solid fill material and replacing it with glass.

Add an indirect lighting system to the interior that would splash light through the new glass archways and make the building appear occupied, bright and inviting, as a lantern in the landscape.

Softly light the exterior in conjunction with relighting the pergola without washing out the inner glow from the interior illumination.

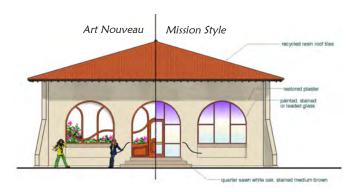
## East Wing Recommendations (OLIC)

This style is compatible with FLO's work in the 1880's (his stuff was more rustic, however).

Most important, though, this pegs the structure to its time, not only Art Nouveau, but Mission/Arts and Crafts existed in the pre-teens.

I see the window material as quarter sawn Oak, finished in a medium dark stain a/la mission furniture.

The stained or etched glass would be nice but could be optional or done later; it would be a 3rd layer inside the double pane glazing.



## **Comfort Stations and Concessions**

The present comfort stations have been modified at some point to allow wheel chair access but are now awkward and represent poor use of space. These situations provide difficult design problems that sometimes are not fully solvable within the old walls of the original restrooms. I suggest looking at the space presently allotted to the whole support structure, Rest Rooms, East Wing storage, and Concessions. These need to be planned as a whole. As they are rarely positive revenue producers, I would suggest considering eliminating the Concessions space and putting that into the pool to produce usable restrooms and a support area for the East Wing with a rest room and other amenities as needed. This sort of remodeling

should be undertaken with a fairly free reign it may be necessary to do some restructuring of the roof and plumbing will probably need to be relocated. There may be differing floor levels as well to be addressed. Concessions are to be handled within the park by vendors. Provide necessary hookups at locations practical to the user.

As was noted above, go over the exterior for plaster problems and wood trim replacement as needed (match existing). Assess the roof condition as well to determine remaining life. At the point where the roof needs to be repaired (as noted above), two courses of action will be available. First, consider replacement tiles if the numbers are low. The second option would be to replace the roof with the composite plastic tile. This option would not be needed until full replacement of the entire roof of the whole complex is contemplated.

#### **Existing Building Additions**

The existing building complex needs the same plaster, roof, and overhang inspection as the rest of the complex. However, until the future location of the police station is understood it may be best to wait on planning. Should the police station be relocated in the future, an overall assessment of the structure should be made inside and out and a building master plan should be created given possible parks, cultural or recreation uses. The outside of the building has been added to and modified at various locations and the original Spanish Mission architecture has been muddied and made confusing, especially on the east and south elevations. Also, the building has had bulk added at a couple locations and lacks windows, and this has made a structure that tends to seem over scaled to the site and somewhat closed and uninviting. When planning the structure strong consideration should be given the original architectural style and materials and that should be a part of the planning process.

The master plan suggests a new addition to the west of the north end of the building. This addition has not been programmed but identifies a logical expansion area of the building and how such an expansion can extend function into the site. The addition helps create a auto court that doubles as event space (the Courtyard) and is the spring-board for the new pergola. Reworking the primary and secondary entrances to the center of the new building mass separates park offices from community space as well as helps organize all the entrances on the east side off the building into an entrance garden.

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# PLAY AREAS

#### **Observations**

Play areas offer a wonderful opportunity for community building or in the case of the Old Louisville Neighborhood continued community building. A contemporary play ground needs to incorporate quality space adjacent to or mixed into the play



areas for parent and guardian interaction and observation. Quality seating assures parental supervision and should be situated to engage interaction between parents and neighbors in a natural unobtrusive way. Play equipment should be interspersed with seating groups and have ample perimeter seating for defining space and engaging the rest of the park. The seating areas should offer shade and be comfortably spaced to not be territorial while still close enough for conversation. Platform seating is omni directional and offers a non territorial seating arrangement that can also serve as a play platform for impromptu play. In time and when the existing play equipment and spray pool become antiquated or unsafe we have proposed relocating the new play area to the north of the proposed new pergola and gazebo.

The new play area separates the older children's play area from the younger children. The younger play area was further divided into two areas to provide greater parental control over play groups and play ability. The revised and smaller water play area is situated between the older play area and the younger play area offering easy access to both age groups. The spray pool is smaller because the overspray has been contained in a smaller area by not using fine droplets that can be blow down wind. It is our recommendation that several courser spray units be directed into the pool area to create more play separation. South of the new Gazebo is The Green which is in terms of space an open lawn. This lawn is defined by plantings and the new pergola and doubles as extra event space west of the Courtyard.

#### **Improvements**

Water Play 2-6 Year Old Area 6-12 Year Old Area "The Green" open play space



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Louisville, Kentucky 2005



Existing and New

### Pergola Recommendations

According to one of the drawings I was given on CD (remodeling drawings from 1996 for the pergola) an engineering company (Bluegrass engineering) re-did the pergola at that time.

- 1. They had new capitols made and set on the existing columns.
- The new capitols are not truly attached, they sit in grout only.
- 3. New precast beams were put on in lieu of the originals.
- The beams have no expansion joints at all, their construction (butt) joints are caulked only, probably to keep water out.
- 5. The whole assembly was then coated (painted) with a Thoro compound.

We can emphasize from these:

- 1. If the drawings are accurate they most likely explain the expansion problem entirely.
- 2. The whole assembly is held together by gravity alone, and the need for an engineering evaluation is a bit more urgent.

#### Pergola General

The pergola is a striking element in the park and a rare example of a traditional Mediterranean or Italian pergola. It is composed of masonry columns, concrete beams, and wood trellising. Added later is a lighting system consisting of spot fixtures splashing each column. The sidewalk under the pergola is the colored "Central Park" standard.

The pergola was built at a time when experimentation with concrete was in its first 30 years. It was well built, but in my experience plaster over concrete does not last more than 80 to 100 years. The columns are about 100 years old.

The sidewalk appears to me to be mostly original and composed of a base slab, likely poured in the standard manner, and a topping layer of a colored cement plaster type material probably applied more like plaster work than concrete finishing. A final finish operation exposed the relatively fine round sand (possibly a washing or brushing done before the material had fully set). This technique allowed a lot of finish control as the surface of

the actual concrete slab is not important. It is quite possible, as well, that the finishers were actual plasters. The small batches of color topping this method would allow would tend to create some variation in color, and indeed the old black and white pictures hint that that was the case.

The columns appear, from my experience with two similar park structures in Cincinnati, to be poured concrete topped much as the sidewalk would have been. Again, with this method the skill of the plasterer would allow a fine seamless finish and a color and fine texture. The columns are about 12' high (I did not take an accurate measurement) and are of the Doric order. The column proportions are about 1 to 5 and do not adhere to the proportions for Doric columns as quoted from Vitruvius:

"...(T)hey made its height, including the capital, six times the thickness of the shaft, measured at the base. Thus the Doric order obtained its proportion, its strength, and its beauty...."

The pergola designer chose to make the columns heavier than standard and in general this gives the columns a more solid weighty appearance and feel. Replacements, however, may have to be custom.

The main beams are concrete. Old pictures indicate that the originals were some type of concrete as well; however the old ones do not appear to be the ones in place now. At some point most likely reinforced concrete replacements were put in place.

## Pergola

The existing pergola has several problems that need addressing. First, the concrete beams do not appear to be functioning with expansion joints. Although concrete does not expand a lot, due to the overall length of the structure (roughly 450 feet) the cumulative effect could be over 2 inches. Since the joints do not appear to be functioning as expansion joints, this has made the effects at each end of the structure cumulative. At the building end the pergola beams have pushed into the OLIC, fracturing the beginnings of a hole in the brick wall that pushes all the way through to the interior. On the other

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end at the round termination the columns are visibly out of plum and the circle is being pushed apart. The solution to both of these problems is to create functional expansion joints. I do not think they would need to be at every joint in the beams, but an engineer could calculate what is needed and provide perhaps 4 or 5 joints total, each with an inch or so gap (with larger gaps added at each end of the straight run). A 2" gap is probably prudent at the building, although smaller might be possible if the space is needed for bearing (the bearing end may turn out to be a little engineering design problem by itself but should be solvable even if the pilasters need to be bigger). The termination ring should be separated by a couple inches as well. I would think the existing beams could be reworked, but there is a good chance that parts of the structure would have to be disassembled to accomplish this. I do not think sealants or caulks are necessarily needed from joint to joint unless covering up some sort of structural component. This problem is of medium importance, I would think within 5 to 10 years it will become severe enough to further break joints and column capitals and the brick at the OLIC will begin to crumble from freeze thaw and the continued pressure of the pergola beam ends. When this problem is addressed more investigation into the joints should be undertaken to verify the exact parameters of the problem. Structures like this (tall columns, heavy and high center of gravity, brittle joints) are vulnerable to other stresses as well most especially earthquake damage. A casual search on the internet reveals the NOAA records that there have been at least 5 events since 1974 that registered 3 or greater in the Louisville area. The special vulnerability of structures like this to even minor earthquakes stems from the extreme weight of the upper beams (probably in excess of 100,000 lbs each exclusive of plants and trellising), the lever arm from the ground (height) and the extreme rigidity and relative lack of tensile strength of the material. I have seen structures built in the 1960's with concrete roofs have to be extensively repaired for this reason, even in the Ohio Valley. A structural engineer should check the pergola for code required earthquake loading at the time the other problems are addressed. Code probably will not require retrofitting, but it would be a good check for the Park Department to understand where the structure stands in light of a modern understanding of loads and stresses.

Aside from the noted structural issues, the beams have weathered into a dirty gray. This is not entirely objectionable, but it could be addressed with a breathable cemetitious coating in a color complimentary to the sidewalk and the stucco on the OLIC. An overall color palette should be created for the whole complex.

In addition to the beam problems, many of the columns show cracking in the plaster layer and efflorescence at the cracks. One possible aggravating factor may be the newer coating that the columns show, possible something added at the time of the beam replacement. If the paint coating does not breathe or pass water it may be trapping water between the plaster and the underlying concrete column. This in turn causes water to settle at low areas and freeze. Many (though not all) columns show fractures at the base in the plaster layer, with whitish efflorescence indicating a water flow through the material. Some columns show more severe cracks, and many sound hollow when tapped, indicating the plaster has pulled away from the substrate. Probably the worst column conditions are in the round termination area. Due to the cracks at capitols at the round termination area this area should be examined by a structural engineer for stability. It is likely the old column under the plaster has no steel reinforcing in them, and the heavy beams may be broken entirely free of the columns in this location. This task could be addressed as soon as practical. Other than that, the damage in the plaster finish on the columns is something that will get progressively worse over the next 5 to 10 years. One approach would be to clean out cracks, apply filler, and recoat the columns with a colored top coat or paint. However, this will buy only a few years.

The wood trellising is weathered but most pieces are probably sound otherwise. There are a few pieces, again especially in the round termination area, that show what may be rot. These pieces would need replacing. The wood has been painted at some point and could use painting again within the next 5 years. The present light rose color is more from the 1980's than the period of the pergola. A richer color could be used here, perhaps a terra cotta like the roof of the complex or a yellow/ orange color mimicking wood could be considered.

#### Rotunda

Mostly noted under "A" above, the circle of columns shows some severe problems due to expansion of the linear beams. Many columns show severe problems such as cracks and disbondment in the plaster finish layer and one or more columns shows what may be a fractured capital. There could be more severe problems covered up by the plaster as well. As noted above, once the plaster pulls away from the substrate water can hasten deterioration. Problems in the round pergola termination are of a more severe nature and need to be addressed within a shorter time span, say 5 years. However a structural assessment should be done as soon as practical.

#### Sidewalk

The sidewalk should be replaced at this point with the Historic Concrete Mix. Joinery should be done exactly like the original. The existing sidewalk is deteriorating and this process, due to the nature of the material, will accelerate. This will probably need replacing within 5 to 10 years.

# Lighting

The present lighting system is visually quite striking as it splashes light on the columns and reinforces the rhythm of the pergola at night. However, it does not light the path as well as it could and it tends to let the trellising and plant material go dark. There are also some maintenance problems with the lights. Lighting of this trellis should be studied further and revisited as the vines grow and cover the wood.

The pergola is such a striking and unique feature in this park that it may warrant a more elaborate solution. I would consider a solution that does 3 things. First, continue the splash of light on the columns as the existing system does now. Second, provide another layer of lighting that puts a flat wash on the sidewalk. Third, add lights above that light the foliage at night. These three systems could be separately controlled. Close attention should be paid to color temperature- the sidewalk and column light should be rich in the reds to highlight the historic color of the sidewalk. The foliage illumination should be rich in the blue/green spectrum to make the leaves pop out. Color temperature and lighting design should be contextual to the whole park and not out perform the other features at night. A regular system of lights and conduits could be worked into the beams and trellising. There is no urgent timetable to the lighting replacement other than the problems presented from a maintenance point of view.

## Summary

Overall, the pergola is not in good shape. I would not expect it to remain serviceable and visually an asset for much more than the next 5 years. There may be structural problems with the ring of beams and columns in the round termination. At least some of the beams need to be replaced or modified to function with expansion joints. Lighting eventually needs to be replaced and is not entirely adequate for a full range of functions. Some of the wood trellising, especially in the round termination, may be rotted and need replacing. An assessment of the termination ring should be done relatively soon and at that time the structure should be checked for its ability to withstand minor earthquakes, as addressed in the Kentucky Building Code.

# New Pergola

A new pergola is included in the master plan at a right angle to the old one. Its design could take one of two courses. It could be clearly different from the existing one, thus differentiating it from the original work and maintaining historical distance. There is much precedence for this approach in architecture. However, in our case, both pergolas need to balance with the building, as well as each other. This may tend to cause the new pergola to be similar to the original no mater how it is executed. To my eye, "a near miss" is often more conspicuous than a total break from a convention or an attempt to duplicate exactly, so this presents a bit of a design dilemma.

The new shelter at the end should mimic the rest of the pergola, its columns should be the same, varying only if at all by height. Simply set a roof assembly, perhaps similar to the assembly designed for Shelby, and a shelter is achieved in the original style of the complex.

An overall solution, and one that would address the problems of the deterioration of the existing pergola, is to replace the existing columns with new and at the same time add the new pergola from the same components. Where the existing pergola is concerned, this could be an exact replacement. The old beams could be reworked and reused and the existing foundations could be reused. It could even be possible to reuse the trellising perhaps just replacing the pieces that are rotted or cracked severely. Being that the old pergola and the new pergola

both need new columns it is sensible and cost effective to use the same mold for both. If one of the pergolas is built prior to the other the saved mold can be use to build the later. The mold should be saved for future repairs and replacements.

The most durable material, then as now, is concrete. However, it is possible now to have precast concrete columns fabricated to match the originals. Standard precast could suffice but it has finish problems that are difficult to address entirely unless one embraces the somewhat rustic appearance of raw concrete. Another option would be to have replacements made in "cast stone". Cast stone is a particular type of precast concrete that has a fine finish applied when it is manufactured. "http://www.stonelegends.com" is a company that does this sort of thing and specializes in columns. There are several nice features to this concept. The look will be authentic, perhaps even more than now as the columns have been painted and the original finish is obscured. As there will be quite a few pieces ordered the cost will be as good as it gets for these type items. Integral tints and colors will be available.

# **TENNIS COURTS**

The existing tennis courts are oriented properly in a north south direction and are located in a low area of the park where the associated noises of playing tennis are buffed by the embankment to the south. Existing tennis court lighting facilities work well with the topo and do not appear obtrusive, even with lighting operational from dusk to dawn. Fencing is also not obtrusive; and parking for the tennis courts occurs conveniently and without problem along Park Ave.

In the summertime tennis play occurs simultaneously and without disturbance to the Shakespeare Theatre.

A recent Central Park Centennial display presented a 1907 photo of tennis courts in use at their present location which leads us to believe that the tennis courts and gymnasium complex as shown on the 1904 Olmsted Brothers General Plan never occurred at the plans proposed location. During the extensive construction, which occurred during the early 1990's (roadway, gravel stage area, utilities, grading, curbing, etc.) no underground remnants of such a complex as shown on the 1904 General Plan were found.

Currently the tennis courts contribute to the recreational value of the community. It is the recommendation of this plan to leave the tennis courts in place with renovations as appropriate to maintain the courts for play until such time the community and Metro Parks determine the courts no longer serve the needs of the community or that the community would be better served by their relocation to another property.

If the current number of tennis courts are to remain in Central Park they should stay at their present location. Relocating one or two courts to the southwest corner of the park should be consider if community interest in tennis wanes or it no longer makes economical sense to maintain the current number of courts in their present location. At such time that the courts are removed care should be taken to keep the reclaimed open space free from any future construction or tennis court development and preserve the Olmsted Brothers intended green space for future generations.

Existing sub grade – compaction problems, which exist at the present location, should be corrected prior to construction of new courts. There is a strong neighborhood tennis association that has stated they are prepared to give financial support to keep the courts in the park at their current location.

#### Recommendations

- Develope a sense of entry at the tennis courts from Park Avenue.
- Organize site furnishings to reduce clutter.
- Rebuild and maintain six courts as required to keep them playable.
- Provide temporary tournament seating on adjacent courts. Protect court surfaces as necessary.



Tennis courts to be removed



Tennis courts to be rebuilt



Clutter along Park Avenue

# Central Park Master Plan



# **MASTER PLAN GRAPHICS**

April 15, 2005

# Central Park Master Plan



Louisville, Kentucky

MASTER PLAN

# Central Park

15 April 2005 Final Submission Modified 1-18-06





The intent of the master plan is to give long term direction for future park improvements. Key elements of the master plan include redesign of the amphitheater, play area, new pergola and shelter, increased program areas adjacent to the park building (Court Yard and the Green), park building expansion and improved entries, park perimeter planting with improved entrances, park walk replacement including improved circulation and drainage. Streetscape enhancements include burying overhead utilities, street trees and guards, repaired walks and lawn curbs.



Landscape Architecture

Bentley Koepke Inc.

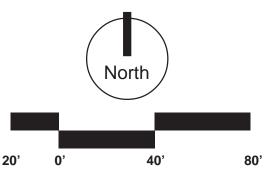


Louisville, Kentucky

BUILDING AND PLAY AREA

# Central Park

15 April 2005 Final Submission Modified 1-18-06

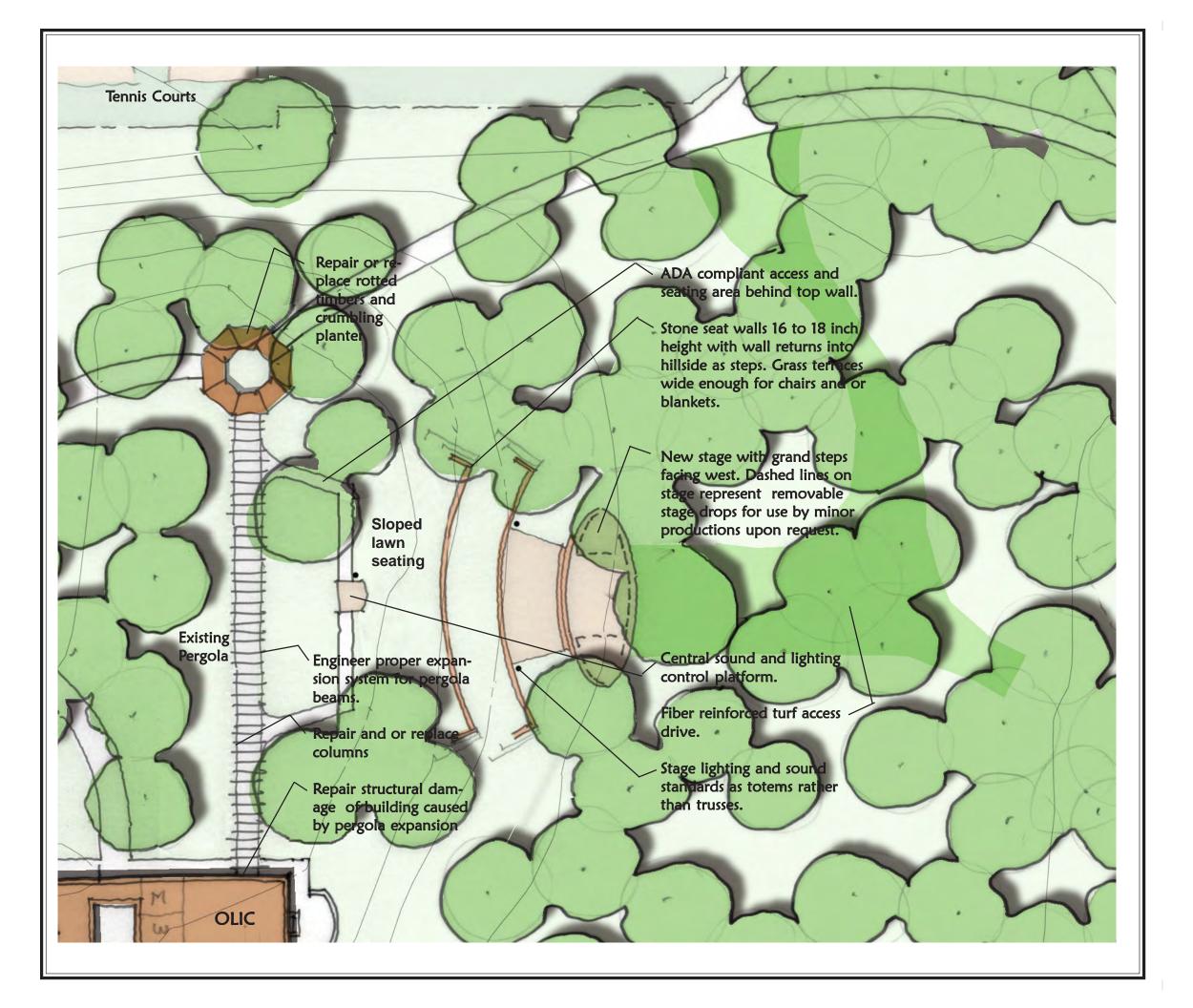


The building expansion includes a major addition to the west at the north end of the existing building with a continuation of a new pergola and shelter terminating the new wing. Renovation of bathrooms include the removal of the concession area to expand the restroom facilities. OLIC is to receive glazing in the arches that used to be open when the structure was a shelter. Structural repairs are required where the pergola meets the building. It is recommended that the entire building be examined for maintenance related improvements. The play area geometry springs from the new shelter and is organized around a new and smaller waterplay area. The Green to the south is to accommodate a variety of free play and park programming. It is also sized to receive two tennis courts if required. A Garden Entry is designed to be more inviting and unify the OLIC and Park Building entrances.



Landscape Architecture

Bentley Koepke Inc.

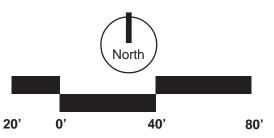


Louisville, Kentucky

# AMPHITHEATER AND PERGOLA

# Central Park

15 April 2005 Final Submission Modified 1-18-06



The new amphitheater is to be a simpler more elegant design and shape that blends into the parks curvilinear geometry. Its materials are to be stone and or concrete. The grass terraces support the idea of "blending in" by minimizing the hard surface area (or wood chips) and keeping the amphitheater mostly green. Totem light and sound standards will have less visual impact on the park.

Engineer an appropriate expansion system for the pergola beams and their connection to the columns. Repair out-of-plumb columns and damage to the OLIC wall from beam movement. Refinish surface of columns to match existing finish. Replace columns that have deteriorated beyond the finish. Examine all wood for rot and replace all timbers with rot. Rebuild existing crumbling planter at the rotunda. Electrical engineer familiar with low voltage lighting to recommend repairs and or replacement of lighting system.



Landscape Architecture

Bentley Koepke Inc.

# **APPENDIX**

## **Community Meeting Graphics**

Those graphics that were shown at community meetings July 21, 2004
January 27, 2005
April 5, 2005

## Final Plan Graphic Submission

Plan Graphics that include the January 18, 2006 revisions. See attached CD for printing all "board size" final submission with text.

## **Phasing Strategy**

Graphic and written phasing strategy of project improvements.

## **Cost Estimate**

Cost estimate is broken down as determined from community input into two main groups, Primary and Secondary Improvements.



# **COMMUNITY MEETING**

July 21, 2004

Graphic Boards presented at first Community Meeting

# Central Park Master Plan









Old Louisville Information Center









District 5 Police Station Grounds





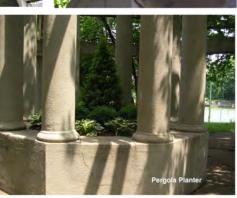












Pergola











Amphitheater

July 21, 2004

# CENTRAL PARK MASTER PLAN



**Tennis Courts** 



Play Equipment



Drainage



Site Trees



**Rest Rooms** 





Interior Walks and Side Walks



Site Furnishings and Lighting

July 21, 2004

# CENTRAL PARK MASTER PLAN

Louisville, Kentucky

# **KNOWN ISSUES**

# Site

**Tennis Courts** 

Condition

Location

Quantity

**Amenities** 

**Interior Walks and Side Walks** 

Condition

**Materials** 

**Amphitheater** 

Condition

Service

Location

**Site Furnishings and Lighting** 

Trash Receptcals

Paths lights

**Area Lights** 

**Benches** 

**Drainage/Irrigation** 

Adequacy

Trees street and site

Landscape Architecture

Condition

# **Architecture**

**District 5 Police Station Parking** 

Location

Maintenance

**Old Louisville Information Center** 

Renovation

Maintenance

Pergola

Restoration/Preservation

Lighting

**Rest Rooms** 

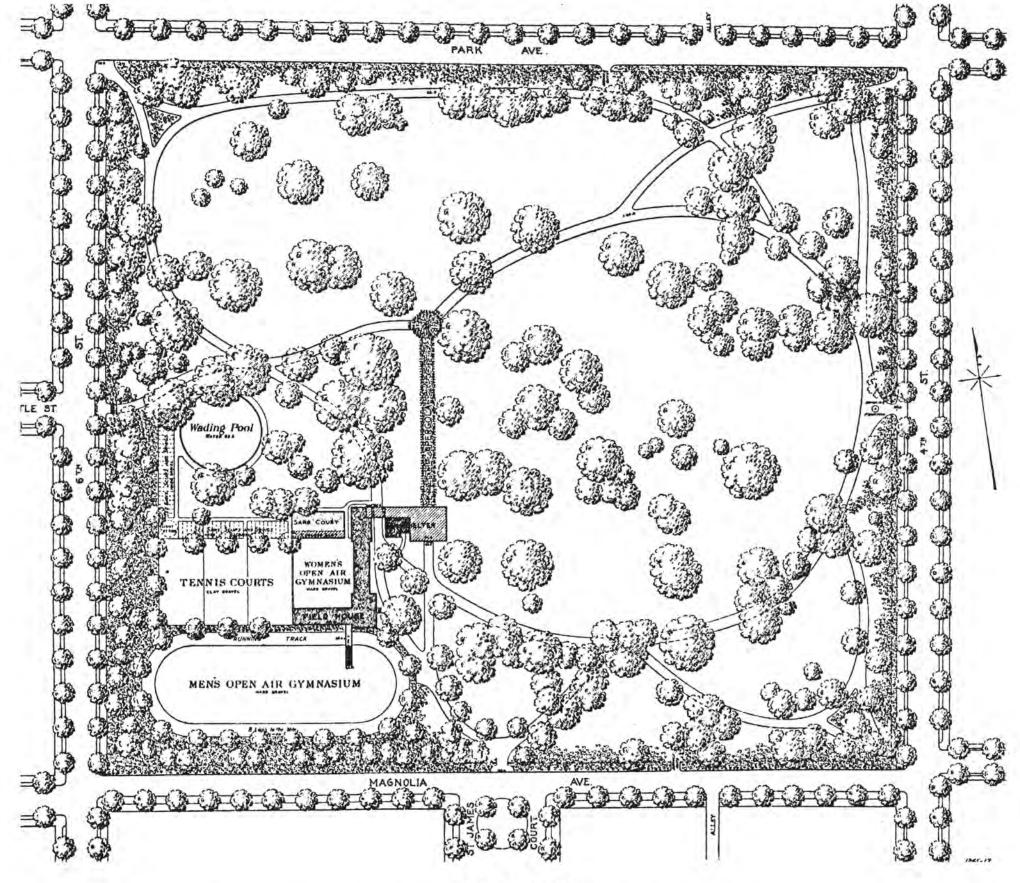
Condition

Adequacy

Location

July 21, 2004

# CENTRAL PARK MASTER PLAN



July 21, 2004

# CENTRAL PARK MASTER PLAN

Planning Landscape Architecture Architecture

Bentley Koepke Inc. Herbert P. Fink Associates Fearing + Hagenauer Architects, Inc.

Louisville, Kentucky

Louisville Metro Parks Louisville Olmsted Parks Conservancy Friends of Central Park

# **COMMUNITY MEETING**

January 27, 2005

Following are the graphic boards presented at the second community meeting. Graphic boards from the first communituy meeting were on display for reference and as a resources for discussion.

## Short Term Plan

Illustrating a five to ten year improvement plan

# Long Term Plan

Illustrating a ten to twenty year improvement plan

# Central Park Master Plan

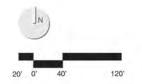


January 27, 2005

Preliminary Concept Short Term Plan

# CENTRAL PARK MASTER PLAN

Louisville, Kentucky



Louisville Metro Parks Louisville Olmsted Parks Conservancy Friends of Central Park

Bentley Koepke Inc. Herbert P. Fink Associates Fearing + Hagenauer Architects, Inc.

Planning Landscape Architecture Architecture



CENTRAL PARK MASTER PLAN

Louisville, Kentucky

Louisville Metro Parks Louisville Olmsted Parks Conservancy Friends of Central Park

Existing Tennis Courts

4 tennis courts are to remain until
such time Metro Parks has developed replacement courts at an oft
site location

Maintain courts as required to keep
them playable. Knowing the courts
are to be moved at some time keep
capital improvements to a minimum.

Hemove two dilapidated courts focated on the west end of the existing
eight courts.

Improved Drainage

Regrade areas holding water and add to existing drainage structure as required to drain standing water

Interior Walks
Interior Walks are to be removed and repaved with historic concrete mix as required to correct failed concrete areas and improve drainage by raising the walk to create positive drainage flows to drainage structures.

Lighting and Furnishings

Complete phase two of the existing lighting plan and existing furnishings plan to supply park with sufficient park path lighting, benches and trash recentacles.

receptacles. Use the same light poles and fixtures

Bear a specified previously
 Remove large pole lighting with cobra head fixtures. It area requires illumination replace with path lighting pole and fixture.

Fourth Street Landscape
Install wrought fron fence at midblock entrance
Intersperse large groupings of shrubs along the perimeter
Repair lawn curb
Renovate brick walk
Plant street trees to match Sixth Street with tree guards

Old Louisville Information Center

Regiaze arched openings as architecturally appropriate to lighten structure and restore visual intent of architecture as pavalion.

Enlarge perimeter walk at building
edge

Add doorway and steps at center
arch of each wall to access pay antion.

arch of east wall to access new patio and seatwall

Perimeter Planting
Intersperse large groupings of deciduous, evergreen and perennial plants among existing trees to create a garden-like park setting

Restrooms

Remove concession area so existing restrooms can expand into vacated space and be renovated to current standards, including ADA access. Concessions to be handled in park with vendor owned equipment.

Corner Entrances

Landscape with wrought iron fencing and plants to create a garden-like atmosphere at the entrances to the park.

Make entrances ADA compliant

Upgrade park signage according to Olmsted Parks standards, including identity wayfinding, information and historic interpretation

Parking Area

Remove garage

Pave and restripe area to accommodate the removal of the garage

Relocate dumpster to location shown and fence it from view.

Historic Croquet Court

Original location for cr

# **COMMUNITY MEETING**

April 5, 2005

Modified 1-18-06

Graphic Boards presented at final Community Meeting

See attached CD for printing full size board.

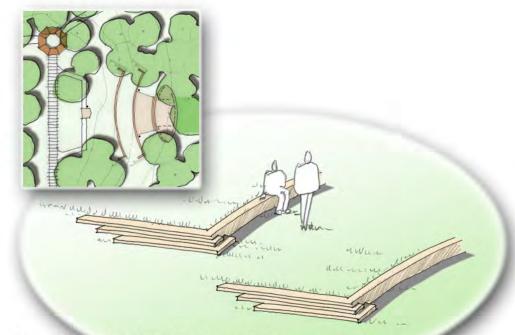


Bentley Koepke Inc. Herbert P. Fink Associates Fearing + Hagenauer Architects, Inc. Architecture

Planning/Design

Louisville, Kentucky

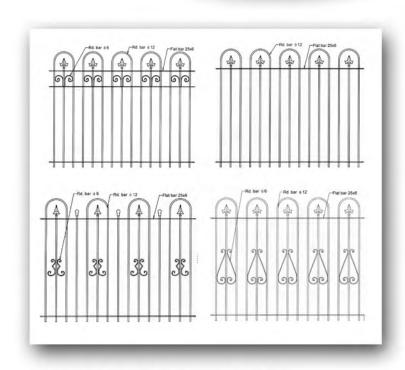
Louisville Metro Parks Louisville Olmsted Parks Conservancy Friends of Central Park



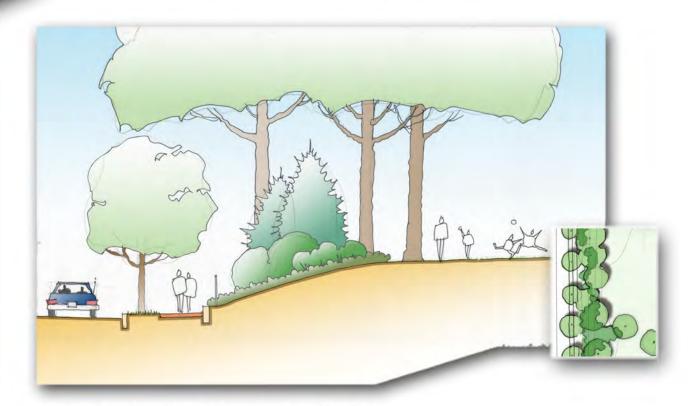
Amphitheater Seat Wall with Steps at End



Water Play area with Platform Seating



Historic Fence Options 4' Tall



Perimeter planting at Street and The Green

April 5, 2005

# CENTRAL PARK MASTER PLAN

Louisville, Kentucky

# PHASING PLAN COST ESTIMATE

July 27, 2005 modified 1-18-06

# Phasing Plan

Graphic plan showing phasing by general area

# **Phasing Strategy**

Written description of phasing strategy

# Order of Magnitude of Costs

Itemized unit cost associated with proposed improvements



Louisville, Kentucky

# PHASING PLAN Central Park

24 July 2005





This graphic phasing plan is intended to be general in nature and is to help determine a strategy that fits the neighborhoods schedule and available resources.

# Primary Phase

- A EXISTING PERGOLA
- B GENERAL IMPROVEMENTS
- C SIDEWALKS, ENTRANCES AND STREETSCAPE
- D TENNIS COURTS
- E AMPHITHEATER
- F PARK BUILDING first effort

# Secondary Phase

- G TENNIS COURT DEMOLITION
- H BUILDING second effort
- I PLAY AREA
- J NEW PERGOLA & GAZEBO
- K UTILITIES



Landscape Architecture

Bentley Koepke Inc.

# PHASING STRATEGY

It is preferred to schedule construction improvements in a sequence that reduces the impact of previous improvements. Generally the phasing strategy for the proposed improvements is to start work in the center of the park providing access to each project while avoiding completed work by moving outward to the edge of the park. The chronological phasing strategy below assumes all funding is in place for all improvements. Donor gifts, available grants and fund raising efforts may at times move a project ahead of the natural construction sequence. In the event that a project moves ahead in the preferred sequence additional planning needs to take place to minimize the destruction of completed work while assuring site access to future projects. The Park Building has been listed last in the sequence because it has construction access via the existing drive and is currently being used as a police station rather than a park building. Walks and infrastructure (drainage, irrigation and lighting) are most likely to cause some sequencing challenges.

# **Primary Phase**

**EXISTING PERGOLA** 

Pergola & Associated Repairs Lighting (repair and/or Replace)

## GENERAL IMPROVEMENTS

Park Lighting (demo and installation)
Furnishings (trash cans, benches, etc.)
Drinking Fountains (one with dog fountain)
Site Drainage Improvements
Tree Management
Irrigation (building and perimeter planting)

#### SIDEWALKS, ENTRANCES AND STREETSCAPE

6<sup>th</sup> and Magnolia Entrance Existing Olmsted Walks (with demolition) New Pavement and Entry Spaces at Building Streetscape (sidewalks, curbs and lawn curbs) Historic Iron Picket Fencing Perimeter Planting

## **TENNIS COURTS**

Reconstruct subgrade Build asphalt/clay courts Removable tournament bleacher area Lighting

#### **AMPHITHEATER**

Stage & Drive

Existing Amphitheater demo
Stage Platform and improved utilities
Access Drive to Stage
Removable Lighting and Sound Truss
Note: Lighting and sound equipment by others

# Seating, Walks & Hardstand

New Stone Seat Walls and steps Amphitheater Walks Amphitheater Hardstand/Dance Floor

#### PARK BUILDING first effort

Park Restroom Renovation Courtyard (auto and flex space) East Wing Renovation (OLNC) East Terrace Paving East Terrace Seat Wall

# Secondary Phase

## TENNIS COURT DEMOLITION

Tennis Court Demolition and seeding

#### PARK BUILDING second effort

Building Renovation (for Park Dept use) Building Addition (for Park Dept use) Parking lot improvements Garage Demo

#### PLAY AREA

Water Play Area and demo (2-6 yrs) Playground Area (6-12 yrs) Playground Area

#### NEW PERGOLA & GAZEBO

New Gazebo (with solid roof) New Pergola Lighting

#### UTILITIES

Bury overhead utilities at perimeter

# Central Park Master Plan

Louisville, Kentucky 2005



# Primary Community Requested Improvements ORDER OF MAGNITUDE OF COSTS

Quantity	Item	Unit Price	Unit Total	Subtotal		
EXISTING PERGOLA						
1	Pergola & Associated Repairs	Allow	\$250,000	_		
	Lighting (repair and/or replace)	Allow	\$30,000	\$280,000		
TENNIS CO	URTS					
6	Reconstruct sub grade	Allow	\$200,000			
6	Build asphalt courts	Allow	\$150,000			
1	Removable tournament bleacher area	Allow	\$10,000			
12	Lighting	\$5,500	\$66,000	\$426,000		
SIDEWALKS, ENTRANCES AND STREETSCAPE						
1,600 sf	6th and Magnolia Entrance	\$30	\$50,000			
46,400 sf	Existing Olmsted Walks (with demolition)	\$15	\$700,000			
8,000 If	New Pavement & Building Entrances\$15		\$140,000			
3,500 lf	Streetscape (sidewalks, curbs & lawn curbs)	\$150	\$530,000			
1,050 lf	Historic Iron Picket Fencing	\$200	\$210,000			
2,200 lf	Perimeter Planting	\$150	\$330,000	\$1,980,000		
GENERAL IMPROVEMENTS						
20	Park Lighting (demo and installation)	Allow	\$80,000			
45	Furnishings (trash cans, benches, etc.)	Allow	\$90,000			
2	Drinking Fountains (one with dog fountain)	Allow	\$40,000			
	Site Drainage Improvements	Allow	\$150,000			
	Tree Management	Allow	\$100,000	<b>.</b>		
80,000 sf	Irrigation (building and perimeter planting)	Allow	\$150,000	\$610,000		
AMPHITHE	AMPHITHEATER					
Stage & Driv						
1	Existing Amphitheater demo	Allow	\$30,000			
2,400 sf	Stage Platform and improved utilities	\$100	\$240,000			
15,000 sf	Access Drive to Stage	, , \$6	\$90,000			
1	Removable Lighting and Sound Truss	Allow	\$80,000			
	Note: Lighting and sound equipment by others		\$440,000			
Seating, Walks & Hardstand						
430 lf	New Stone Seat Walls and Steps	\$300	\$129,000			
2,275 sf	Amphitheater Walks	\$12	\$28,000			
1,375 sf	Amphitheater Hardstand/Dance Floor	\$12	\$17,000	****		
			\$174,000	\$614,000		
PARK BUILDING						
750 sf	Park Restroom Renovation	\$250	\$190,000			
4,225 sf	Courtyard (auto and flex space)	\$15	\$65,000			
1,300	East Wing Renovation (OLNC)	\$210	\$275,000			
500 sf	East Terrace Paving	, \$15	\$10,000			
46 lf	East Terrace Seat Wall	\$180	\$10,000	<u>\$550,000</u>		
		Total 10% Contingency 10% Design Fees		\$4,460,000		
				\$446,000		
				\$4,906,000		
				\$490,600		
		•	Grand Total	\$5,396,600		

Central Park

Master Plan

# Secondary Community Requested Improvements ORDER OF MAGNITUDE OF COSTS

Quantiy	Item	Unit Price	Unit Total	Subtotal
OVERHEAD 3,500 lf	OUTILITIES  Bury utilities at perimeter	\$500	\$1,750,000	\$1,750,000
PARK BUILI 1 2,100 sf  NEW PERG 1,200 sf 100 lf	Building Renovation Building Addition Parking lot improvements Garage Demo  OLA & GAZEBO New Gazebo (with solid roof) New Pergola	Allow \$210 Allow Allow \$100 Allow	\$750,000 \$441,000 \$100,000 \$8,000 \$120,000 \$180,000	\$1,299,000
	Lighting	Allow	\$40,000	\$340,000
TENNIS CO 2 PLAY AREA 1 1 1	DURT DEMOLITION  Demolition & Seeding (14,000 sf)  Water Play Area and demo (2-6 yrs) Playground Area (6-12 yrs) Playground Area	\$2.00 Allow Allow Allow	\$28,800 \$180,000 \$100,000 \$180,000	\$28,800 \$460,000
		10% pro	TOTAL 10% contingency 10% professional fees GRAND TOTAL	
Primary Improvements Grand Total Secondary Improvements Grand Total COMPLETE RESTORATION TOTAL				\$5,396,600 \$4,692,238 \$10,088,738

# Central Park Master Plan