



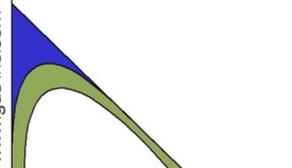
City of University City, Missouri

Lewis Park – Needs Assessment Study

Final Concept Master Plan

REVISED August 23, 2013

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**gateway
design
studio, inc**

planning
landscape architecture
environmental design

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Lewis Park

CONCEPT DESIGN MANUAL

INTRODUCTION

Lewis Park located at 7035 and 7059 Delmar Boulevard was in need of an inventory and assessment of the current facilities and a proposed plan to address the current and future needs of park for the residents of University City. This historic park dating back to 1925 generally consists of narrow broken asphalt walking paths, a playground, benches, tables, and an old cast iron drinking fountain. There is also a pond that is the focal point of the park with the “Fish on a Bike” sculpture located within the pond. The pond was last dredged in 1988.

The goal of the study was to create a needs assessment report and conceptual master plan which will serve as a guideline for future planned improvements to the overall park space as well as serve as a supportive document for applying for future grant applications. Some of the planned park improvements would be but are not limited to the following;

- Dredging of the existing pond for better water quality
- New wider walkway/trail system
- Rain gardens for better storm water management
- Improved site lighting
- Overall improved pedestrian and ADA access
- New site furniture including benches, picnic tables, etc.
- New water fountains
- New Playground area with full ADA accessibility
- Sustainable native landscaping
- Removal of invasive honeysuckle shrubs along the west property line and replaced with new native landscape buffer planting

All the above listed improvements were contingent upon public input from the residents and pending future grant funding.

Enclosed in this manual you will find comprehensive recommendations for the concept master plan design of this park which is approximately 4 acres in size. The following pages outline recommendations for the design features and elements as part of this plan. This phase of the project is the direct result of a study which provided in depth research, analysis and preparation of concept design documents necessary to achieve the highest level of cost effectiveness and creativity for the benefit to the City of University City.

As part of the design process, Gateway Design Studio, Inc. (GDS, Inc.) conducted systematic analysis of the existing conditions and provided suggestions and options

through evaluation of potential site improvements related to such factors as wider walkways & paths, safe access to the park, improved site lighting, new site furniture, preservation of open space recreational areas, mitigating storm water management, improving water quality of the existing pond, enhancement of the existing landscape and future playground improvements. The GDS Team assessed the existing and impending proposed conditions through the study of existing documents and plans, thorough site analysis, inventory and timely meetings with City staff, residents and other relevant stakeholders in order to chart a course of action for the successful re-development of this park.

DESIGN INTENT STATEMENT

We believe this park is unique in the sense that it truly defines a “neighborhood park”. Our approach for a park space is that it must be designed in the context of **“Community Identity and Sustainability Principles”** allowing for a clear appreciation by users while considering such design factors as protection of natural resources, clear and visible park identity and community pride, recognizing recreational use and value, accessibility and ongoing facility maintainability through the application of sustainable design principals related to site development.

Our goals were to fully understand the existing and potential uses for the site, to collectively recognize and utilize the maximum potential for the redeveloped park space with in-depth research and realistic design alternatives. Included in this manual are suggested recommendations that will propose unique and creative design solutions that still respect the character and feel of Lewis Park. We have considered the ramifications of each aspect of the project related to the City of University City’s goals and objectives, including but not limited to the location of park amenities such as the walking paths/trails, site furniture, quality of the existing pond, open space preservation, native landscaping, ADA access and a future new playground.

DESIGN ELEMENTS AND STANDARDS

PARK ENTRANCE & IMPROVEMENTS



This will park offers two primary entrances which are accessed from a new 6 ft. wide concrete stairway located at the southwest corner of the site along the Delmar Blvd. sidewalk and a 10 ft. wide asphalt drive/trail entrance off of Vassar Ave. to the north. The plan proposes two (2) monument park signs at each location. In addition, there will be LED site lighting, park information signs and bench seating off Delmar. In addition, a single Handicap parking stall will be offered along the street on Vassar Ave. for disabled park users. Both entrances will feature added new landscaping of native shrubs, perennials and ornamental trees.

EXISTING POND AND WATER QUALITY

The improvement of the water quality for the existing and historic pond is a primary objective of the City. This pond features sculptural elements and offers a great amenity to the existing park space and neighborhood. Recommended improvements include dredging the pond to an acceptable depth in order to remove undesirable soils and reduce the growth of algae and other vegetative growth which has adversely affected the water quality. Other additional improvements are to install aerator fountains to replace the two existing spray fountains that are there now.



PARK SIGNAGE AND INFORMATION



Park information signs are proposed in order to display park and recreation news, activities and map of the park. These signs will be clearly located at the entrances of the park. In addition, interpretive signs are planned for special areas of the park such as the nature playground and woodland garden. Other directional signs will be located throughout the park for orientation and information to park users. Signage should be readily visible and enhance the visual character of the site.

PLAYGROUND AREA

A new and updated playground area is proposed as part of Phase 2 improvements. The playground area will feature play structures for various ages from toddlers to big kids. In addition, a nature playground area is proposed which will feature elements of outdoor nature play and exercise. Activities will be linked together so that many children can use the play area as desired. A new "6 swing" swing set area is also provided. Safety is important both within and outside of the playground. Protective surfacing is recommended. The play structure should be approved by the USGB council with LEED certified materials. Age groups will be from 5-under years to 5-12 years.



OPEN SPACE RECREATION PRESERVATION



Preserving any available open space area for recreation is critical to the character and use of the existing park. Sledding down the existing slopes from Delmar has been a popular tradition within the community and remains an important pastime for residents of all ages. Therefore, preservation of the existing slopes along the south side of the site is recommended for this reason. The primary open space is located east of the park site which offers opportunities for unorganized games of soccer, Frisbee and softball. The

objective of the open field preservation for this park is to provide for popular enjoyment; therefore the area is to remain accessible to a wide range of use.

ADA ACCESSABILITY

Accessibility on the site is achieved at several locations. Primarily the north entrance will be the main ADA access to the park. Also, the walkway connection from University Heights will offer ADA access for users as well. All built features of the site including trail/walkways and the playground will be connected based on universal design guidelines to permit flexibility with greater accessibility. Any needed ADA ramps will be constructed of concrete pavement. Ramp entrances will have features for both visual and textural cueing. All access points will be clearly marked for orientation by users.



PARK TRAIL SYSTEM



WALKING & JOGGING TRAIL

All the existing deteriorating asphalt walkway will be removed in order to provide for a new and improved widened walkway/trail system throughout the park. The trail is proposed to be 6 feet wide and constructed of asphalt with a minimum 2.5 inch wearing course on a 9 inch crushed rock base. The trail will be an opportunity for walking/jogging use with interpretive signs for orientation and natural features. The trail shall be designed for 2-way movement with a minimum 1:50 slope factor and little or no cross slope. This will be most suitable for persons with disabilities. As an alternate pervious concrete will be considered.

TRAILHEADS

Two trailhead locations are proposed as part of the trail system which will be located at the Delmar Blvd. stairway and north entrance. Trailheads will allow for seating and rest for users of the park along with signage for orientation and interpretation of the park amenities. The main trailhead location will be at the location of the north entrance where many users will start from.

PICNIC AREAS



Two (2) picnic areas are provided as part of the park space. These areas are strategically located by the playground area for patrons to use during recreation activities. Picnic areas will be of simple design defined by a concrete pad with an anchored picnic bench made of poly coated material and a complimentary trash receptacle. Picnic areas should be clearly visible and ADA accessible.

STORM WATER MANAGEMENT

Traditionally, storm water management has involved the rapid conveyance of water via storm sewers to surface waters. The storm water management of this site will be controlled by rain gardens strategically located to mitigate on-site and off-site runoff. The design of the rain gardens will involve, among other things, regulating the hydrologic cycle, providing nonpoint pollutant treatment, resource conservation, and habitat creation. Beyond its use for storm water control and water quality, the rain gardens will provide encouragement of environmental stewardship and community pride.



NATURAL RESOURCE PRESERVATION AND ENHANCEMENT



A portion of the site will feature the preservation of the vegetative buffer along the west property and existing trees along Delmar and numerous large trees throughout the park. Some trees which are dead deemed in poor condition or undesirable will be removed as required. In addition, the City plans to have resident volunteers contribute to the removal of invasive Honeysuckle in the park. A naturalized woodland garden is planned along the walkway/trail located at the southwest section of the property which will feature an assortment of shade and native plants typically found in woodland conditions.

LANDSCAPE IMPROVEMENTS



Proposed landscape improvements include when possible, the use of native trees and shrubs suitable for the region and locally available. Special attention must be made to assure that the landscape materials be low maintenance and drought tolerant to conditions without the need for irrigation. It is important that the design of the landscape provide attractive seasonal color, shade opportunity and openness for security reasons.

Trees should have a raised branching habit and shrubs must be dwarf or compact in nature. Native perennial flowers and ornamental grasses will be featured for accent seasonal color along the west side of the park along the existing vegetative buffer and at the park entrances.

LIGHTING AND SECURITY



Outdoor lighting provides safety, security, aesthetics, and economic development opportunities. There are many valid reasons to light the outdoors. However, it is important to understand how much outdoor lighting is enough and how to balance the need for light while minimizing light pollution and increasing energy efficiency.

Operative outdoor lighting design and equipment will provide cost-effective energy improvements and minimize wasted light, light pollution, glare, and trespass. Many different types of lights are available. As part of the overall improvements to the park, new light standards and LED fixtures will replace the old lights on the site. These lights will combine the latest technology available to provide years of reliable, low maintenance operation.

APPENDIXES



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 Planning & Development
 1500 South Grand Blvd.
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Sheet No.
MP-1.1

Date:
 8/23/2013

Drawn By:
 [Name]

Checked By:
 [Name]

Scale:
 1" = 30'-0"

Lewis Park
 Needs Assessment Study

Revised
 August 23, 2013

City of University City

LEWIS PARK – FINAL CONCEPT MASTER PLAN

PHASED PROPOSED IMPROVEMENTS - KEY NOTES (refer to plans)

PHASE 1

<u>Key Note</u>	<u>Description</u>
A -	6 ft. wide staircase from Delmar with Large Park Message Board
B -	Monument Park Sign
C -	6 ft. wide asphalt walking/jogging trail
D -	Replace exist. fountains with aerator fountain for water quality control
E -	Dredge existing Pond
H -	10 ft. wide asphalt access drive
I -	New 5 ft. wide concrete walkway access
J -	North Park Entrance w/bollards & Medium Message Board
K -	Invasive Honeysuckle Vegetation Removal and Native Planting remediation
L -	Woodland Garden
M -	Preserved Open Space
N -	Dedicated Handicap Parking Space
P -	New Bench w/ Trash Receptacle (Typ.)
Q -	New Light Standards accept those shown T&R
R -	Existing Benches to be removed

PHASE 2

F -	New zero entry Playground Area
G -	New Nature Playground w/Medium Message Board
O -	New Swing Area w/Shredded Bark Mulch and (6) swings

PHASE 1 - EXAMPLE CONCEPT DESIGN IMAGES



Park Bench



Bench Area w/Trash Receptacle - Berry Park



Picnic Area - Berry Park



Light Standard – LED



6 ft. wide asphalt walking/
jogging trail



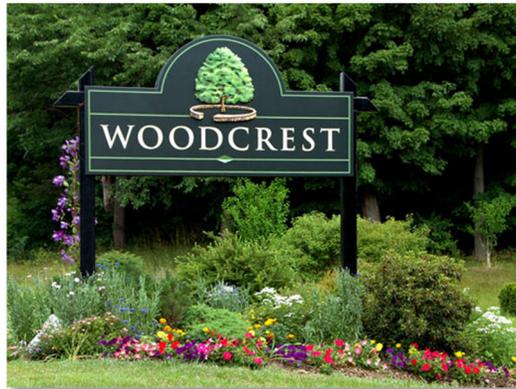
ADA Drinking Fountain w/Pet Bowl
– Berry Park



Trash Receptacle



Picnic Bench – coated



Park Monument Signs



Park Message Board



Interpretive Sign



Woodland Garden



Bollards - Berry Park Pipe



Retaining Wall Block -
Versalok Mosaic

PHASE 2 - DESIGN CONCEPT IMAGES



Zero entry Playground Area - Berry Park



6 Swing - Swing Set Area



Nature Playground



EXISTING CONDITIONS - June 2013









Gateway Design Studio, Inc.

CONSTRUCTION COST OPINION

856 Kiefer Trails, St. Louis, Missouri 63021
 Ph. 314-703-1800
 web: www.gatewayds.com

Date: REVISED 8/23/2013
Job Number: 013-02
Client: City of University City

Project: Lewis Park - Final Concept Master Plan dated 8-23-13
 Phase 1 - Cost Estimate

MATERIALS & LABOR

QUANTITY	DESCRIPTION	PRICE	TOTAL
PHASE 1 - WORK			
1	Demolition - existing concrete (stairs, walks)	2,536.00	\$2,536.00
1	Selective Clearing & Grubbing - trees	2,253.00	\$2,253.00
1	Selective Demolition - site furniture	390.00	\$390.00
1	Dredge Ex. Pond - excav. & haul off (1,210 c.y.)	16,588.00	\$16,588.00
1	Concrete Stairway - Delmar	15,564.00	\$15,564.00
1	Segmental Retaining Wall - Delmar Stairs	1,673.00	\$1,673.00
1	6 ft. wide Asphalt Walk - 2.5"/9" agg. Base	31,325.00	\$31,325.00
1	5 ft. wide conc. Walkway access	4,181.00	\$4,181.00
1	(3) Steel Pipe Bollards - painted/removable	3,225.00	\$3,225.00
1	(18) LED Light fixtures - 12 ft pole	37,348.00	\$37,348.00
1	(4) Trash Receptables	2,400.00	\$2,400.00
1	(5) Benches & Trash Receptacles w/conc. Base	12,375.00	\$12,375.00
1	Signage - (2)message boards, (4)directional	5,700.00	\$5,700.00
1	(2) Monument Park Signs Allowance	10,000.00	\$10,000.00
1	(2) Picnic Areas - Table, Trash rec, conc pad	3,800.00	\$3,800.00
1	(1) 1/2 HP Aerator Fountain w/Light Kit	2,924.00	\$2,924.00
1	(1) Drinking Fountain - ped. ADA, Alum. Water supply	2,908.00	\$2,908.00
1	Landscape - Delmar Stairs/Mon. Sign Allowance	4,000.00	\$4,000.00
1	Landscape - Pond & Rain Gardens Allowance	36,500.00	\$36,500.00
1	Landscape - North Entrance Allowance	3,000.00	\$3,000.00
1	Honeysuckle Removal - volunteer/City	1,000.00	\$1,000.00
1	Landscape Allow. - Native Planting West	9,000.00	\$9,000.00
1	Landscape Allow. - Woodland Garden	12,000.00	\$12,000.00
	Sub-total		\$220,690.00
	General Contractor's Markup on Subs - 10%		\$18,408.70
	Sub-total		\$239,098.70
	General Conditions - 5%		\$11,954.94
	Sub-total		\$251,053.64
	General Contractor's Overhead & Profit - 15%		\$37,658.05
1	Phase 1 - 20% Conceptual Stage - Contingency Allow.	50,000.00	\$50,000.00
1	Phase 1 - Design/Engineering Fee	33,000.00	\$33,000.00
1	Topographic and Boundary Survey	25,000.00	\$25,000.00
	GRAND TOTAL		\$396,711.68

NOTE:

- * Cost information derived from RS Means Site Work & Landscape Online Data and local bid price results.
- * Costs reflected in this estimate are for informational purposes and should be considered for budgeting only.
- * Actual construction values will vary according to bid conditions, time of year and type of project.

Gateway Design Studio, Inc.

CONSTRUCTION COST OPINION

856 Kiefer Trails, St. Louis, Missouri 63021
 Ph. 314-703-1800
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Date: REVISED 8/23/2013
Job Number: 013-02
Client: City of University City

Project: Lewis Park - Final Concept Master Plan dated REVISED 8-23-13
 Phase 2 - Cost Estimate

MATERIALS & LABOR

QUANTITY	DESCRIPTION	PRICE	TOTAL
	PHASE 2 - WORK		
1	Selective Demo.- playground equip	2,050.00	\$2,050.00
1	Playground Allowance - 2-5 year old	45,000.00	\$45,000.00
1	Playground Allowance - 5-12 year old	90,000.00	\$90,000.00
1	Swing Set Allow. - 6 seat w/rubber mulch	22,000.00	\$22,000.00
1	Nature Playground Allowance	60,000.00	\$60,000.00
1	(2) Signs - Interpretive	2,000.00	\$2,000.00
1	(2) 8 ft. Picnic Tables - coated	2,400.00	\$2,400.00
1	Landscape Allow. - playground	10,000.00	\$10,000.00
1	(3) Benches & Trash Recept. (playground)	7,425.00	\$7,425.00
	Sub-total		\$240,875.00
	General Contractor's Markup on Subs - 10%		\$24,087.50
	Sub-total		\$264,962.50
	General Conditions - 5%		\$13,248.13
	Sub-total		\$278,210.63
	General Contractor's Overhead & Profit - 15%		\$41,731.59
1	Phase 1 - 20% Conceptual Stage - Contingency Allow.	54,000.00	\$54,000.00
1	Phase 2 - Design/Engineering	19,000.00	\$19,000.00
	GRAND TOTAL		\$392,942.22

NOTE:

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C:/013proj/013-02/Lewis Park -REVISED- Prelim. Cost Estimate 9-23-13