ARCHITECTURE & DESIGN, LLC
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# Playground Master Planning & Design Services for the State College Area School District

MAD #18054

August 2, 2018

Ed Poprik
Director of Physical Plant
State College Area School District
Physical Plant Office
131 West Nittany Ave.,
State College, Pennsylvania 16801-4899

RE: Response to State College Area School District's RFP for Playground Master Planning and Design Services

Dear Mr. Poprik,

Thank you for the opportunity to respond to your RFP. We are excited at the opportunity to closely examine the District's 10 playgrounds, assess them for safety and play value, and propose new ideas to make them safe and challenging places of whole body play, accessible and rich child-directed social spaces, and in charged with the wonderful informal learning opportunities nature play can provide.

**Metcalfe** is a firm of experience designers – architects, exhibit and graphic designers, and play professionals. We have devoted our practice to playful learning opportunities in schools, gardens, museums, and other cultural institutions. We regard play as a primary way humans learn and we deeply appreciate the District's desire to invest in this critical part of student life.

We have recruited **Studio Ludo** to join our team on your project. They are a 501(c)3 organization devoted to building better research through research, design, and advocacy. The center of their research is in playground assessment, examining play value, safety in the context of risk/benefit and they are extremely sensitive to the entire environment in which the invitation to play takes place.

**Think Green, LLC** is a design and construction firm with a deep connection to children's play environments. They will provide technical construction advice and cost estimating for the master planning project.

**Stahl Sheaffer Engineering, LLC** is a State College, PA based civil engineering firm with experience working with the State College Area School District. We have recruited them to help us identify critical civil engineering issues that may confront the project at an individual school basis as you move from planning to implementation.

We hope the following material conveys some of our enthusiasm for your project and how our team is particularly well qualified to meet your goals. If you need any more information or have any questions, please do not hesitate to contact me at 215-557-9200 or by email at christopherk@metarchdesign.com.

Sincerely,

Christopher Kircher, AIA
Studio Director

# Table of Contents


# 1. FEE/COST PROPOSAL


Teachers
are Rulers!

# FEE PROPOSAL

**We propose to provide the services outlined above for the lump sum amount of $152,440 not including reimbursable expenses or additional/optional services.**

| | **Lump Sum** |
|---|---|
| **Master Plan** | |
| Architect - Metcalfe | $74,140 |
| Playground Assessment Consultant - Studio Ludo | $30,475 |
| Cost estimating services - ThinkGreen | $8,050 |
| Civil engineer - Stahl Sheaffer Engineering, LLC | $2,875 |
| **Subtotal** | $115,540 |
| | |
| **Renderings** - Assume 10 | $25,000 |
| **Reimbursable expenses** | $11,900 |
| | |
| **Total** (not including reimbursable expenses, additional or optional services) | **$152,440** |
| | |
| **Optional/Additional Services** | |
| Additional in-person meetings | $1,760 |
| Additional conference calls | $660 |
| Artist's renderings (examples available upon request) (use of 3D modeling) | $2,500 each |
| Assessment for compliance with F1292 – need not anticipated | $3,800 - $5,800 each |
| Additional overnight delivery of presentation material to stakeholder groups | $500 allowance |

# 2. PROJECT UNDERSTANDING

# PROJECT UNDERSTANDING + SCOPE SUMMARY

Our team has made it our mission to craft remarkable environments that support the innovation, creativity, discovery, and joy that can be found only through play. We are excited about the potential of the State College Area School District Master Plan to not only address the state of its current play venues, but to rethink the future of its outdoor environments through the lens of play-based learning.

Metcalfe's and Studio Ludo's combined design experience is well versed in current trends in play and learning environment design, from the integration of risk into play, to the importance of nature in school settings. We believe strongly in the correlation between joy in play and success in learning. In the words of Fred Rogers, "Play is often talked about as if it were a relief from serious learning. But for children play is serious learning. Play is really the work of childhood."

We understand that the School District is interested in a team that can become intimately familiar with the program needs of the school district, evaluate current facilities, and make recommendations regarding capital improvement needs. To that end, our team will provide the following:

## SAFETY AUDIT & PLAY VALUE ASSESSMENT

The goal of this report is to lay the foundation upon which recommendations for the design of existing and future play areas for the School District will be developed. The report will include four parts.

**1. Existing Conditions**

The first part of the report will documentat the existing conditions at each of the 10 SCASD play areas. We will visit each of the 10 SCASD play areas to perform architectural surveys. While on site, we will take photographs and measurements of overall dimensions of the existing site, play area and adjacent buildings. 10 School District play areas. We will use client provided site plans and other publicly available resources to develop base diagrams/drawings for use in the masterplan for each school. The schools to be included in the scope of work are as follows:

- Corl Street Elementary School
- Easterly Parkway Elementary School
- Ferguson Township Elemetary School
- Gray's Woods Elementary School
- Mount Nittany Elementary School
- Park Forest Elementary School
- Radio Park Elementary School
- Spring Creek Elementary School (future)
- Mount Nittany Middle School
- Park Forest Middle School

**2. Playground Safety and Play Value Audits**

The second part of the Assessment Report will be Playground Safety and Play Value Audits for each of its 10 play areas, completed by a Certified Playground Safety Inspector trained by the National Recreation and Park Association. A sample audit form has been included in the Appendix section of our proposal for your reference.

The Playground Safety Audits will assess for compliance with:

- ASTM F1487 (Standard Consumer Safety Performance Specification for Playground Equipment for Public Use)
- CPSC No. 325 (U.S. Consumer Product Safety Commission's Public Playground Safety Handbook)
- Americans with Disabilities Act of 2010 (ADA).
- ASTM F1292 (Standard Specification for Impact Attenuation of Surfacing Materials Within the Use Zone of Playground Equipment) if the playground safety surface is a loose fill material (ie gravel or engineered wood fiber). Note: If playgrounds include poured in place rubber or rubber tile surfacing, an additional consultant will provide drop testing for compliance certification.

**3. Programming Needs**

The third part of the Assessment Report will document interviews with key stakeholders to identify potential programming needs for the School District at large, and at each of the 10 individual play area sites. We understand the key stakeholder groups to be as follows:

- SCASD Board of School Directors (and any applicable subcommittees)
- SCASD Administrative and Professional Staff
- SCASD Playground task force
- State College community members

**4. Recommendations**

The fourth part of the Assessment Report will include the recommendations of our team for each of the play areas. We understand that the School District is interested in exploring the potential of the sites to support holistic play that emphasize naturalized play spaces and learning opportunities and, where applicable, integrate existing and traditional play equipment toward those aims. The sites should include ADA access as outlined in the play area guidelines supplement to the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and the 2010 ADA Standards for Accessible Design. We will also research any additional applicable zoing/planning, safety and building code parameters for the project. At the conclusion of the project, SCASD will be presented with a letter certifying the Master Plan Design recommendations meet ASTM F1487, CPSC #325 and Access Board Guidelines.

Serving as the preliminary playful learning vision for the State College Area School District Master Plan, this report will take into account the following:

- Existing conditions
- Issues of note outlined during the Playground Safety Audits
- Applicable zoning/planning, safety and building codes
- Accessibility
- Programming needs
- Recommendations from key stakeholders

## MASTER PLAN PROCESS

The input of the entire team from client to community to designers to contractors is extremely important to the success of this project. We propose to work in an iterative process with key stakeholders to develop this master plan. As outlined in our schedule, we will follow a linear process of assessment, programming, design, revision, cost estimating followed by further revisions and cost estimating and then phasing. This approach promotes an organic dialogue throughout the design and thought process as we consider the needs of all the appropriate stakeholders.

This process ensures that we are listening and providing opportunity for group input and feedback. In-turn, we will provide you with the information you need to make decisions moving forward in a comprehensive master plan.

## PLAYGROUND MASTER PLAN REPORT

The goal of the Master Plan Report is to document all of the work created as part of the Master Planning Efforts, address district wide playground needs, and present the Board of School Directors with multiple options to consider. The Report will support the School District's efforts to make informed decisions about the future of its outdoor spaces based on the most current thinking and research in play-based learning. The report will include five parts.

**1. Safety Audit & Play Value Assessment**
The first part of the Master Plan Report will be as described above.

**2. Visioning & Narrative**
The second part of the Master Plan Report will begin with the vision defined as part of the Safety Audit and Play Value Assessment. The vision will be reworked throughout the engagement process with key stakeholders and the community. This process will involve, at minimum, at least two "at-large" community meeting to solicit feedback, as well as several meetings with key SCASD stakeholders. Following the engagement process, our team will prepare a narrative report to document the final vision/mission of playful learning for the State College Area School District.

**3. 10 Play Area Plans and Renderings**
Our team will develop and present artist (graphic) renderings for proposed projects. We will work with the SCASD team to determine the appopriate number of renderings necessary for each school. This section of the report will include these renderings as well as previous conceptual sketches and schematic plans.

**4. Cost Estimates**
The fourth part of the Master Plan Report will include order-of-magnitude cost estimates for the above plans and renderings for each of the 10 play areas. It will include a range of costs based on phasing over time.

**5. Phasing**
The fifth part of the Master Plan Report will include phasing suggestions for each of the 10 play areas, as well as the execution of potential future play areas. The phasing will take into account current compliance issues as noted in the Playground Safety Audits, in particular any significant safety issues, as well as phasing required for ADA compliance.

## DELIVERABLES

- Annotated Schematic Design Level Site Plans for each school play area
- Narrative report for each school, including options where applicable
- Report for playground safety audit and play value assessment
- Artist renderings for select schools, See Fee
- Order-of-magnitude cost estimate for each school

## MEETINGS

- Kick off Meeting with SCASD select contituents and design team to review scope, project goals, and calander
- Interviews with Individual School Stakeholders and appropriate SCASD constituents to review existing conditions and discuss programming needs
- Review Initial Concepts - Meeting with SCASD to review initial concepts for each school's play area (allow up to two concepts per school)
- Review Design Direction - Meeting with SCASD to review design direction for the masterplan for each school
- Pricing Review with SCASD prior to community meetings (conference call)
- Community Meetings - solicit feedback on concepts for each school
- Review of Community Feedback with SCASD
- Meeting with SCASD to Review Final Design Direction, revised pricing, and phasing

## ASSUMPTIONS

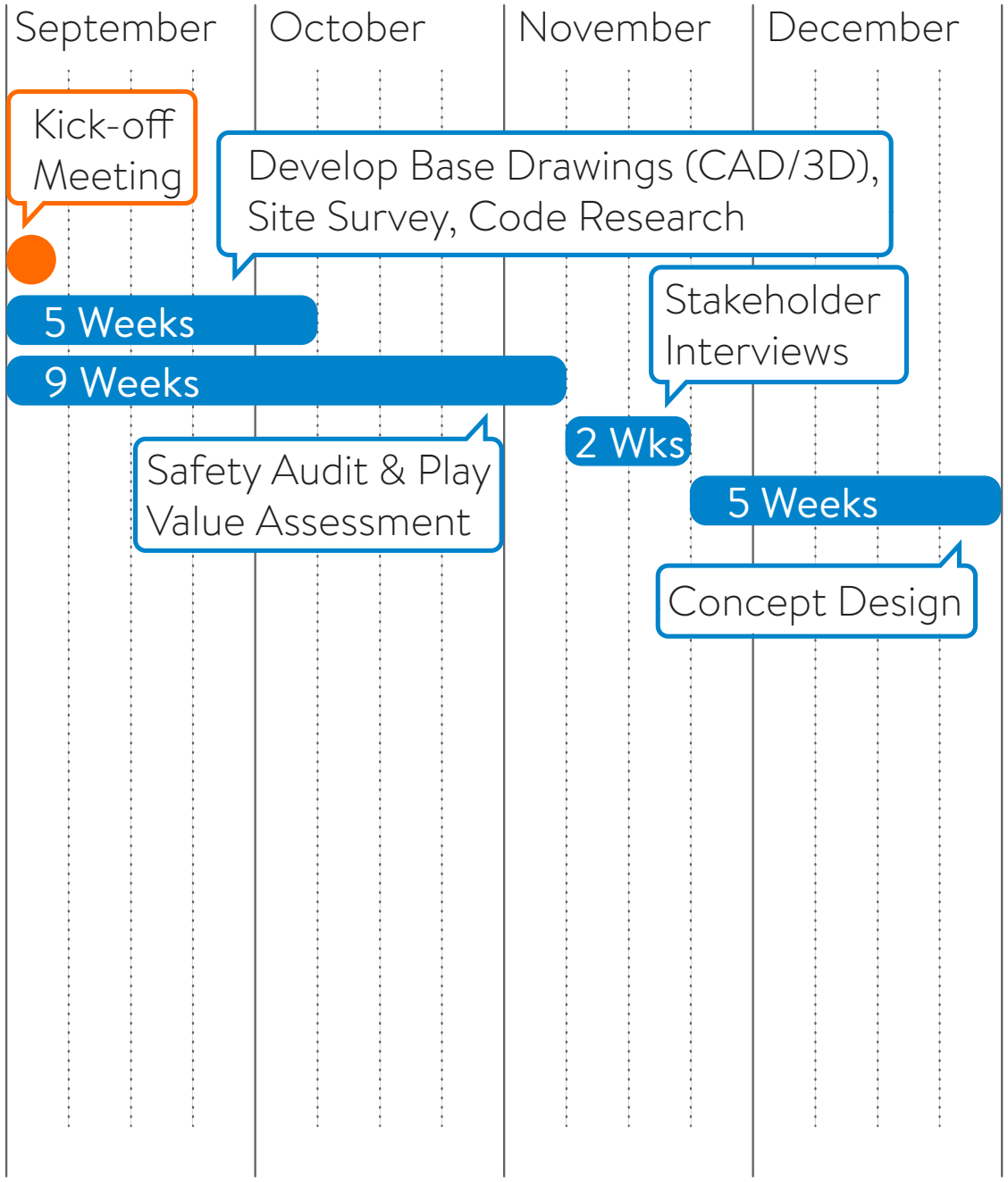
- 11 meetings are included in this proposal for master planning; meetings outside scope of proposal to be billed at hourly rates.
- The SCASD Board of Directors, administration/staff and the Playground Task Force will represent the interests of each individual school.
- Drawings and documentation provided from this proposal are for master planning, not for construction.
- This proposal is comprehensive; services not listed in this document are not included.

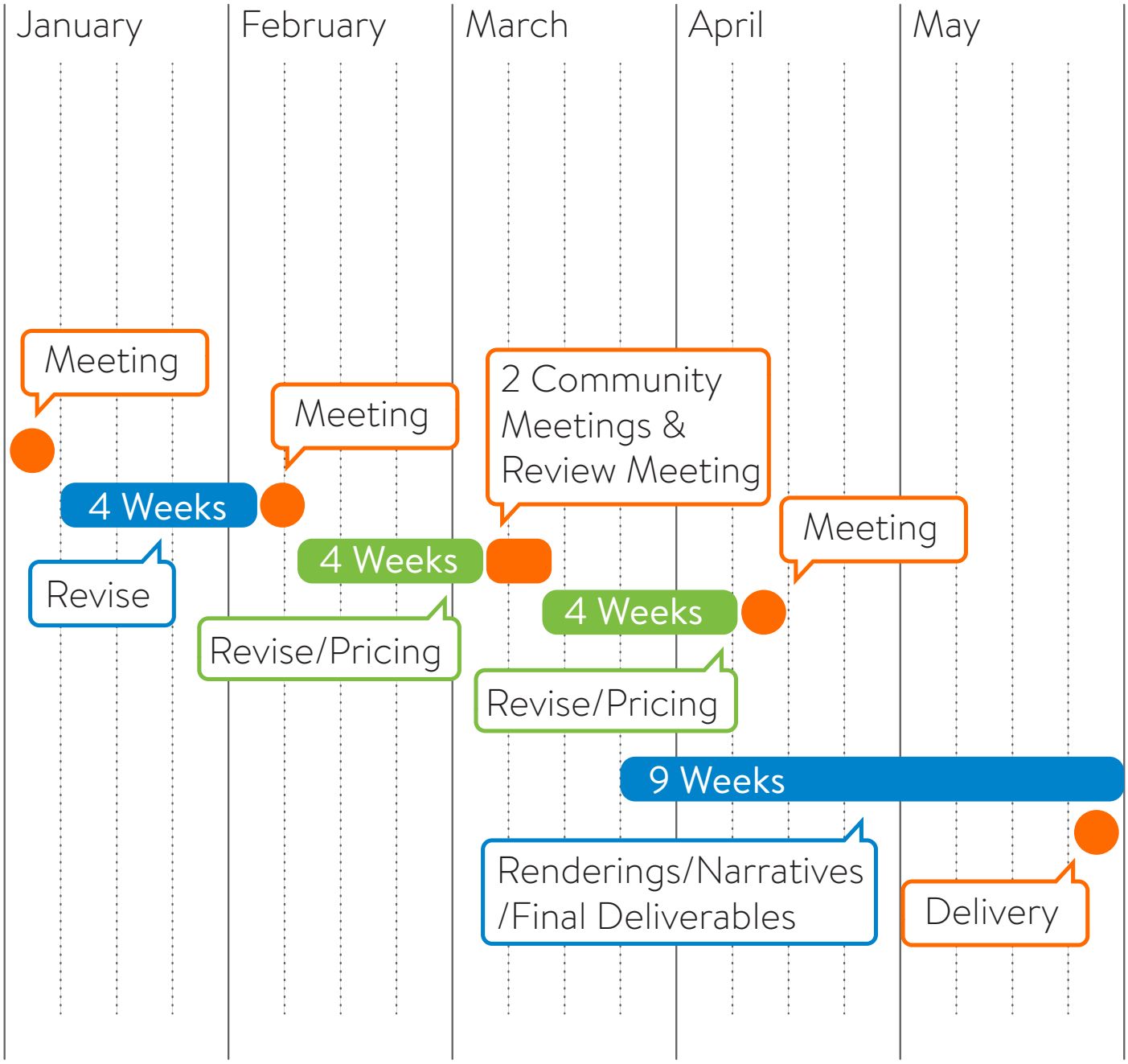
## NOT IN CONTRACT

- Geotech, radon test, soils bearing test, earthwork and deep foundation specs, perc test
- Profession site, boundary, or topographic survey
- Structural Engineering
- MEP Engineering
- Civil Engineering
- Construction Documents/permit drawings
- Landscape architecture
- Hazmat study/remediation
- Lighting designer
- Permit fees
- Assessment for compliance with F1292 (Impact Attenuation of Surfacing), need not anticipated - design team can make a recommendation if required

# 3. PROPOSED SCHEDULE

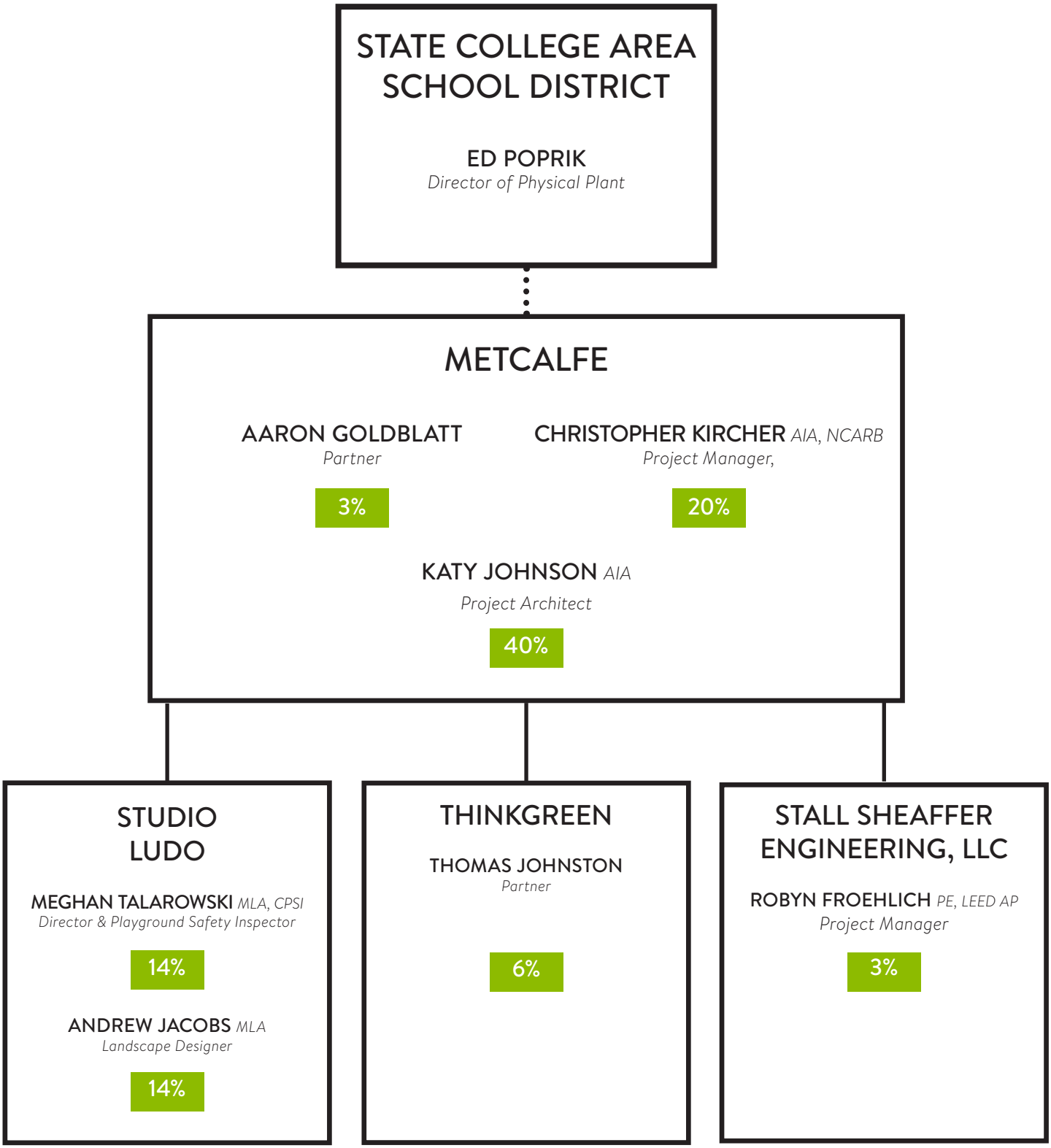
## PROPOSED SCHEDULE



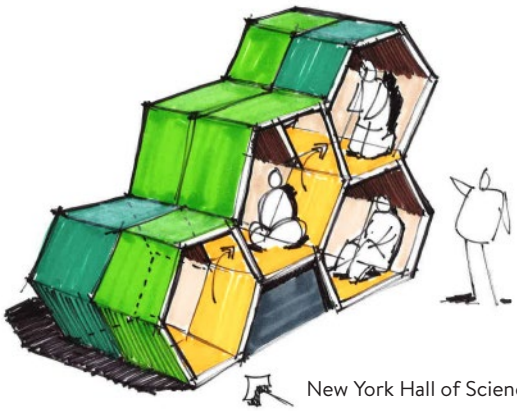

January
February
March
April
May
Meeting
Meeting
2 Community Meetings & Review Meeting
4 Weeks
Revise
4 Weeks
Revise/Pricing
Meeting
4 Weeks
Revise/Pricing
9 Weeks
Renderings/Narratives /Final Deliverables
Delivery

# 4. PROJECT STAFFING

## ORGANIZATIONAL CHART

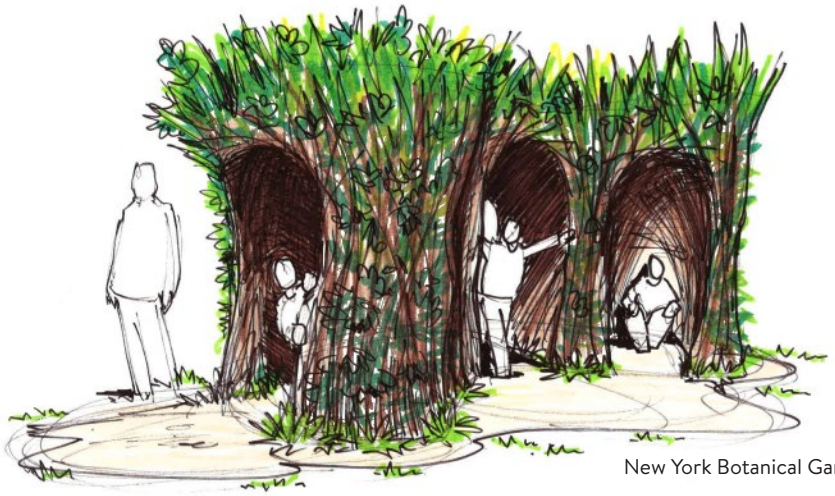



% = PERCENTAGE OF RESPONSIBILITY



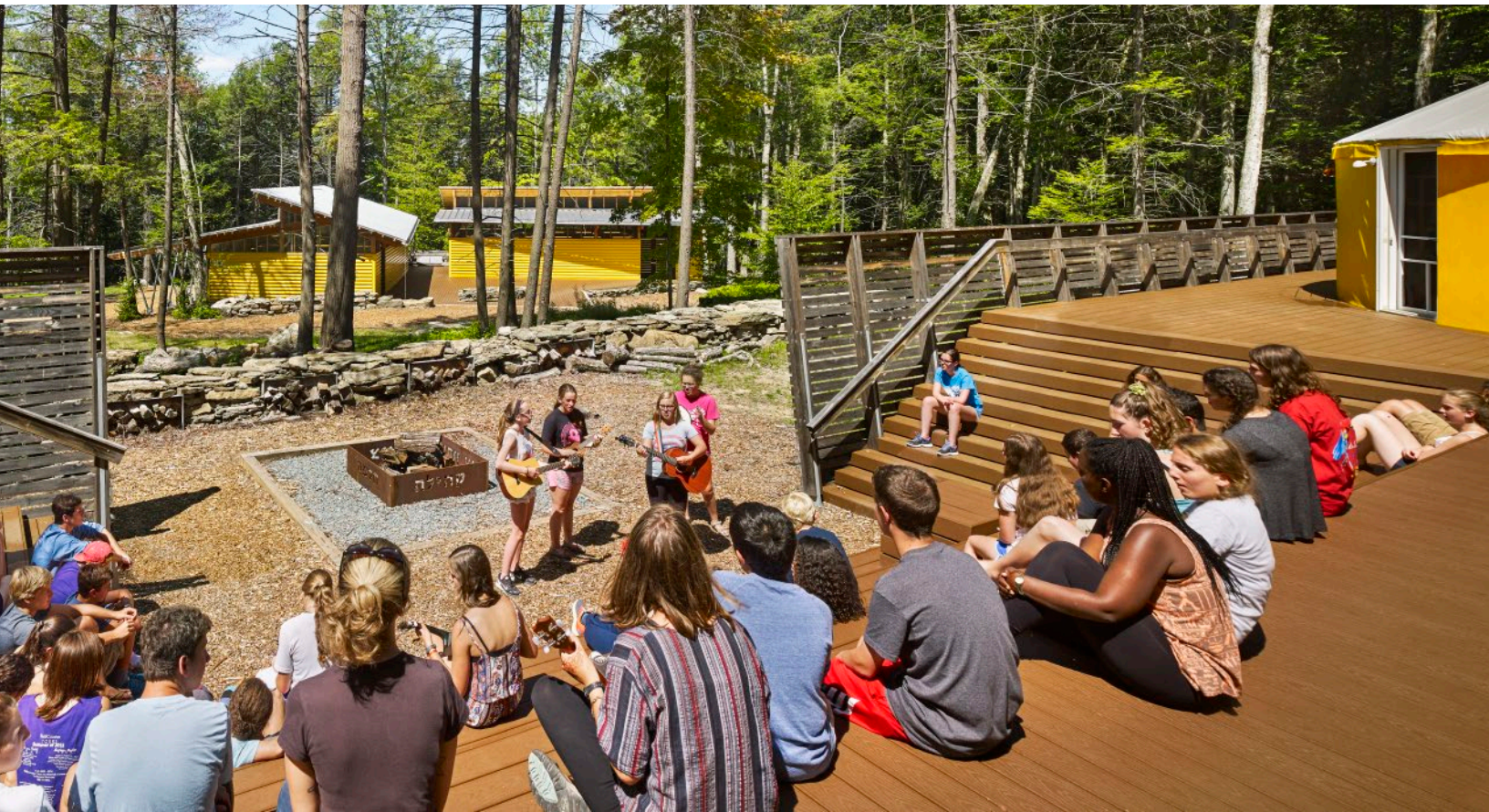
New York Hall of Science

Abington Friends School



New York Botanical Garden

Camp Havaya (JRF)



metcalfe

## ABOUT US:

**Metcalfe**, a Philadelphia **experience design** firm founded in 2001, is sixteen **architects, graphic and exhibition designers** that create architecture, exhibition & wayfinding for cultural and education clients. We have developed a design approach which emphasizes the power of **social spaces** and **informal and playful learning** places for people to come together to learn.

### Designing from the inside out

We know that humans are social animals, and they are attracted to other people. We start our designs as **places for people to gather and learn from each other;** we build our structures around this notion.

### Learning can happen anywhere

Work in informal, open-ended learning environments has led us to design interactive public and waiting spaces at Children's Hospital of Philadelphia; tree canopy walks for UPenn's Morris Arboretum and Dow Gardens; children's gardens at Brooklyn Botanic, student directed learning at SCH and nature play for Abington Friends and Delaware Valley Friends schools.

### Exhibitions and buildings can tell stories

Our work as exhibit designers has shown us that successful design hinges on listening carefully to our end-users to develop a **strong narrative to drive all our work; this includes buildings.**

### Wayfinding, graphic design and donor recognition

Our work in higher-ed, healthcare and cultural institutions centers around inventive ways for visitors to navigate environments, and to feel connected to the host institution's mission. This work ranges widely from Children's Hospital of Philadelphia, to WXPN radio and Philadelphia's Phillies baseball stadium.

### Sustainable design

Our projects are conceived with sustainable design in mind. We have three LEED AP's on staff and have won national awards for our tree canopy walk at UPenn's Morris Arboretum— a project that uses sustainable materials and tells the story of respect for the environment. Our visitor center design at Stevens Creek Nature Preserve (consultants to Neighboring Concepts) focused on the essence of water, pulling visitors down a green planted storm waterway and through a building to tell the story of water and the environment.

### Nature play

Metcalfe is expert at designing nature play spaces that create learning opportunities for families. Moments of "perceived risk" and play provide ways to most effectively teach visitors about being outdoors by **doing rather than telling.**

### Return on investment

Our projects **create places of value**, where visitors want to return again and again. Our tree canopy walk at the University of Pennsylvania's Morris Arboretum received MAAM's 2015 "Buildy" award for its role in the institution's **30% increase in attendance and membership** over four years.

**Client service**
Our role is to help our clients reach their goals. **Significant experience on the client side** of the table has taught us the **importance of listening.** Our projects succeed when we make ongoing and **long-term operations central to the design process.**

## WE FOCUS ON:

**Learning environments**
Independent and K-12 projects include renovations to Mastery Charter School, **Greene Street Friends, Abington Friends, Delaware Valley Friends School** and **SCH Academy;** new construction at Southwest Leadership Academy Charter School and Community Partnership School, and Wissahickon Charter School.

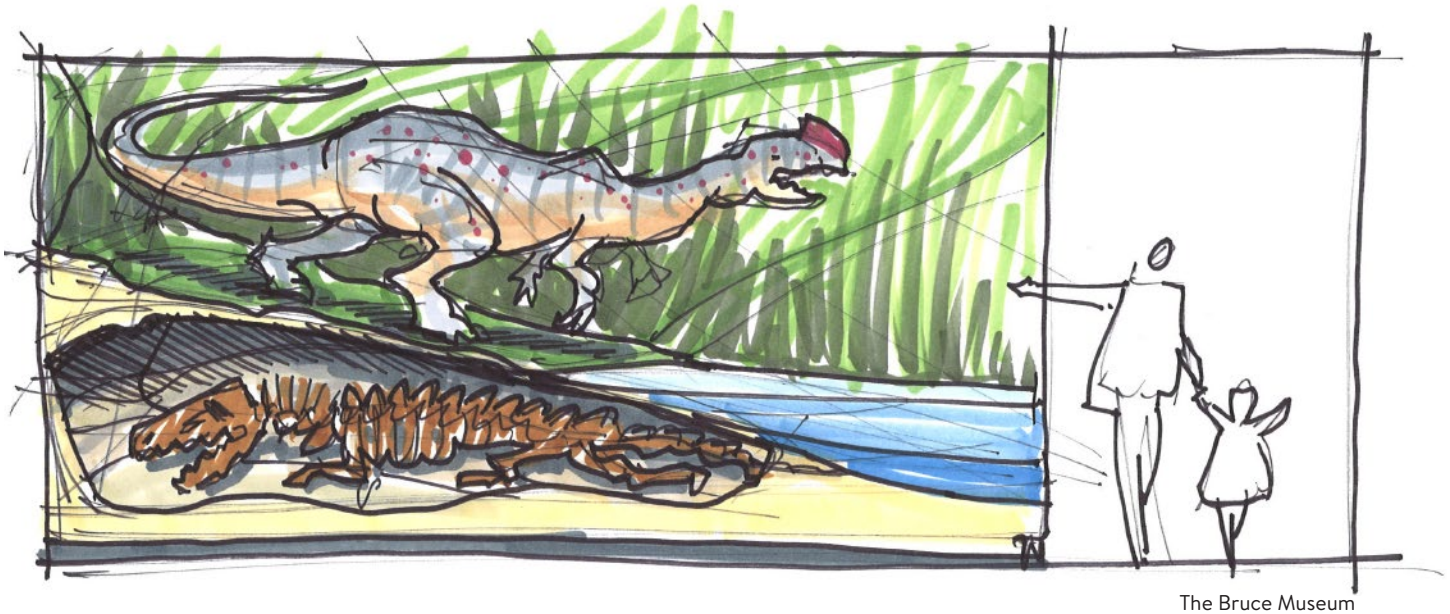
We have designed many projects varying in type and scope in the Delaware Valley and beyond, that create environments for learning. University work includes dining hall additions to Haverford College and Widener University, and two renovations at Penn's campus buildings and its Van Pelt Library.

**Cultural institutions**
Our projects include informal learning environments at the National Museum of Industrial History, National Building Museum, the New York Hall of Science, American Museum of Natural History, the Staten Island Museum, and Monticello's Griffin Discovery Room. In Philadelphia, we have worked with the Please Touch Museum®, the Franklin Institute, the Academy of Natural Sciences of Drexel University, Free Library of Philadelphia, Community College of Philadelphia, and the Morris Arboretum of the University of Pennsylvania.

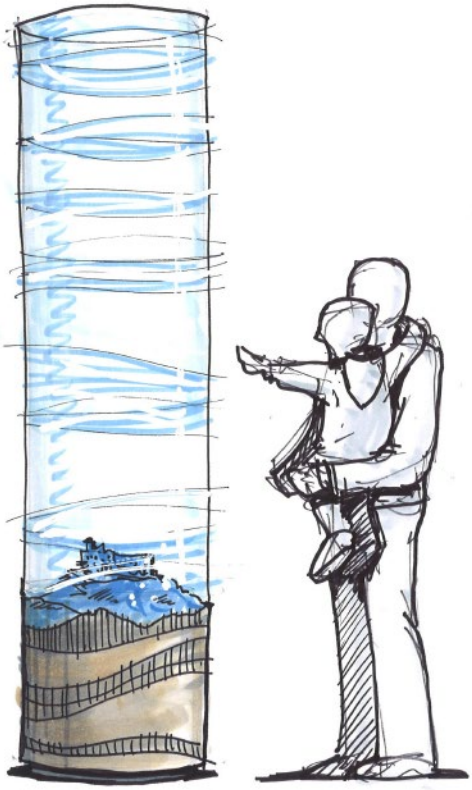
Abington Friends School

## Informal Learning

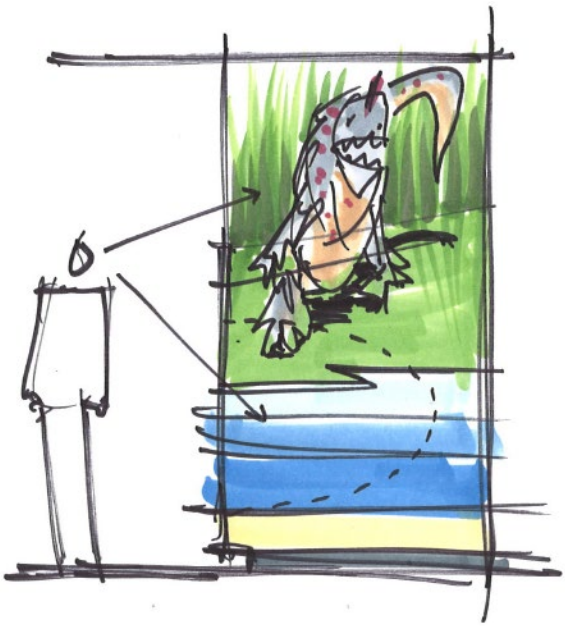
We know that **learning can happen anywhere.** Students learn from their peers and their environment as much as their teachers. To that end, we have created a full range of places where people learn without being told they must. We **"set the table for learning"** and let people learn on their own.



The Bruce Museum




The Bruce Museum



SCH Academy

SCH Academy


Brooklyn Botanic Garden

Abington Friends School

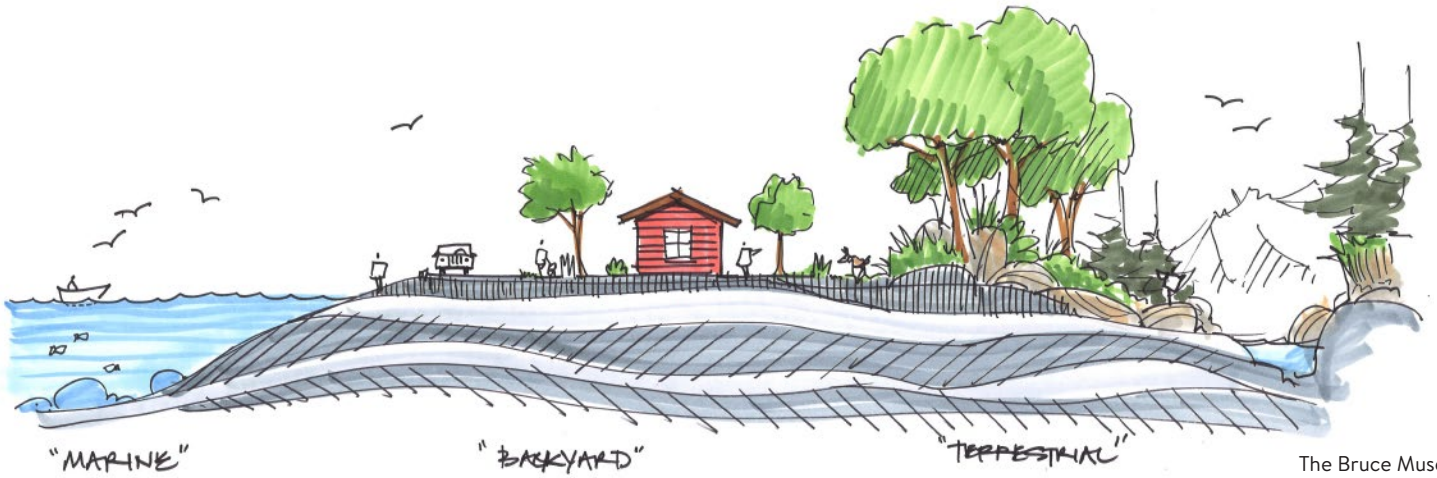

New York Botanical Garden

Brooklyn Botanic Garden

Abington Friends School

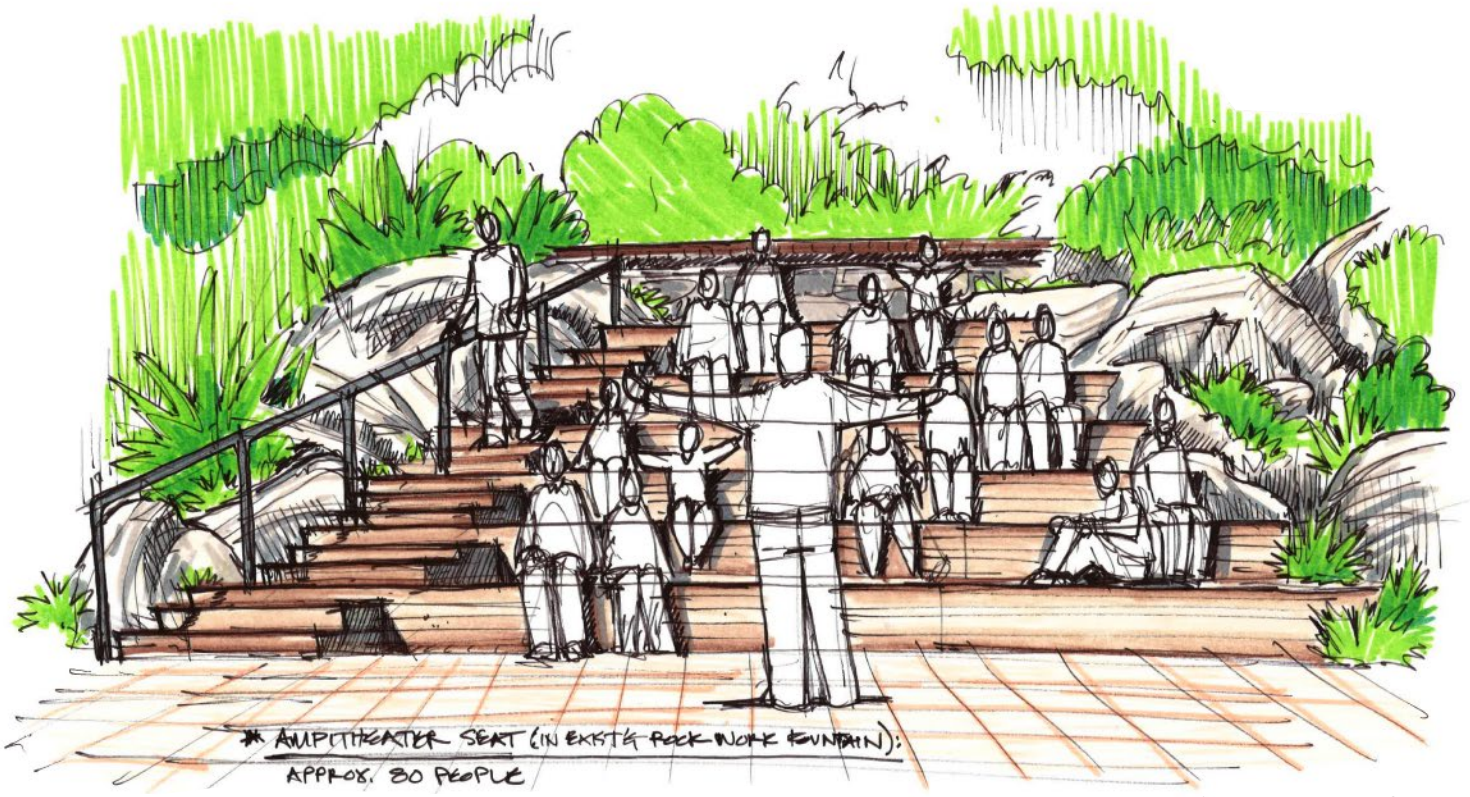
## Nature Spaces

Metcalfe has worked extensively with schools and institutions to create nature play spaces. We believe that **open-ended outdoor play is an important component of learning,** and critical to a person's growth and education. We have created nature play spaces for clients like Abington Friends, Wissahickon Charter School, New York Botanical Garden and the Morris Arboretum of the University of Pennsylvania and Delaware Valley Friends School.




The Bruce Museum

Abington Friends School




New York Botanical Garden

## Social Spaces

**People like people**... Metcalfe learned this a while ago at the Morris Arboretum. And it has become a guiding principal for our office ever since. As **social animals,** people feel comfortable in groups in the **right kinds of spaces.** Our job is to shape the size, shelter, color and light in the spaces. Manipulation of scale provides spaces for the recluse as well as the chatterbox, for one or 50 people, for adults or children (or both!)...its all part of the challenge of **creating a successful place that attracts people.**


New York Botanical Garden

## AARON GOLDBLATT

Partner, Museum Planner, Senior Exhibit Developer

Aaron is Metcalfe's Museum Services Partner, specializing in informal learning, play, exhibition, and museum planning. He joined Metcalfe in 2002. Previously, he was responsible for design and development of all exhibits at Please Touch Museum in Philadelphia. He also served as Director of Exhibits for the Academy of Natural Sciences and Assistant Director of the Wagner Free Institute of Science.

Aaron holds a Master of Fine Arts from Rutgers University and a Bachelor of Fine Arts from the Philadelphia College of Art (now University of the Arts), and is a trained metal sculptor and potter.

Recent projects include the National Museum of Industrial History, the Museum of the American Revolution, The Children's Hospital of Philadelphia, the Lorax Loft on the Trail of the Lorax at the Philadelphia Zoo; Tree Adventure at the Morris Arboretum of the University of Pennsylvania; Butterflies! and The Academy at 200: The Nature of Discovery, at the Academy of Natural Sciences of Drexel University; the Griffin Discovery Room at Monticello; Vision 2020 at the National Constitution Center; and the Independence Seaport Museum.

### Professional Experience

METCALFE ARCHITECTURE & DESIGN
Philadelphia, PA / 2002 to Present

Museum Planning / Children's Environments / Experience Planning and Design: From conceptual visioning to front-end evaluation / prototype planning, through fabrication administration

WAGNER FREE INSTITUTE OF SCIENCE
Philadelphia, PA / 2001 to 2002

Assistant Director: Responsible for all aspects of the management of this 19th century, National Historic Landmark natural history museum and library

PLEASE TOUCH MUSEUM®
Philadelphia, PA / 1997 to 2001

Vice President of Exhibits: Part of senior management team, involved in all aspects of museum policy and planning. Responsible for design, fabrication, installation and maintenance of all exhibits at current museum and for the visitor experiences for $65 million dollar expansion and relocation of museum to the Philadelphia waterfront

ACADEMY OF NATURAL SCIENCES
Philadelphia, PA / 1996 to 1997

Director of Exhibits: Responsible for all exhibit design, fabrication, installation, and maintenance for temporary, permanent, and traveling exhibits

PLEASE TOUCH MUSEUM®
Philadelphia, PA / 1991 to 1996

Director of Museum Services: Responsible for Exhibits, Collections, and Physical Plant departments of the museum. Project manager for a $1.5 million renovation and expansion project completed in November, 1993

TECHNICAL DESIGNER / FABRICATOR & MUSEUM INSTALLATION SPECIALIST
Philadelphia, PA / 1980 to 1991

Developed technical designs and supervised fabrication and installation of sculpture in public and private sites throughout the United States

UNIVERSITY OF THE ARTS
Philadelphia, PA / 1999 to 2015

Adjunct Professor, Museum Studies Graduate Program

### Education

RUTGERS UNIVERSITY
New Brunswick, NJ
Master of Fine Arts, 1990

PHILADELPHIA COLLEGE OF ART
Philadelphia, PA
B.F.A., Sculpture, 1980

### Service to the Field

GENERAL OPERATING SUPPORT GRANT
Reviewer, 2000 to 2002
Institute of Museum & Library Services

MAP III REVIEWER
1999 to present
Museum Assessment Program,
American Association of Museums

PLANNING GRANT REVIEWER
2000
National Endowment for the Humanities

### Board Membership

The Print Center
Friends of the Rail Park

## CHRISTOPHER KIRCHER, AIA, NCARB

Studio Director / Architect

Chris is Metcalfe's Studio Director, overseeing staffing and technical building issues. He is also a seasoned design lead, specializing in our museum & school projects. He has over 20 years of architectural experience, having been a principal in his own practice as well as a project architect at two other firms in the Philadelphia area.

Chris taught for 17 years at Jefferson University, in the College of Architecture and the Built Environment as a design mentor for the student-run Freedom By Design program and as an academic instructor for a student-initiated class.

Recent projects include ***The Yard*** **for the Philadelphia Phillies, Isabella Freedman Jewish Retreat Center Master Plan, Dow Gardens/Whiting Forest**, **InterAct Theatre Company** in the historic Drake building, **Mastery Charter School**, the Tree Canopy Walk at the **University of Pennsylvania's Morris Arboretum,** and **Rhodes Elementary Playspace.**

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### Professional Experience

METCALFE ARCHITECTURE & DESIGN
Philadelphia, PA / 2006 to 2009 & 2013 to Present
**Studio Director**

FISHTANK PHL, LLC
Philadelphia, PA / 2009 to 2012
**Owner/Principal/Partner for Award Winning Architecture and Design Firm**

CLRdesign Inc.
Philadelphia, PA / 1999 to 2006
**Project Architect**

SK III Space Variations
Ardmore, PA / 1995 to 1998, 2000
**Design Consultant**

### Education

PHILADELPHIA UNIVERSITY
Philadelphia, PA
**Bachelor of Architecture, 1998**

### Registration

Pennsylvania
New Jersey
NCARB Certified

### Teaching Positions

ADJUNCT PROFESSOR
Jefferson University
College of Architecture and the Built Environment (C_ABE)
1999-2015

VISITING CRITIC
Temple University
Jefferson University
Drexel University
University of the Arts

### Professional Affiliations

American Institute of Architects
National Council of Architectural Review Boards
Freedom by Design - Pro Bono Design Services, 2009-2015

### Presentations/Exhibits

Rhodes Elementary Playscape [Process], 2015
"Transformative Landscape from Desolate Asphalt to Urban Park"

Design Philadelphia, Curatorial Team, Deconstructed Tools
Fishtank, PHL, LLC., 2010

Delaware Valley Green Building Council (DVGBC)
2009 Student Design Competition - Juror/Judge

Zaha Hadid/SK III Space Variations
Meshworks Garden Installation, Villa Medici
Rome, Italy, 2000

### Organizations

Saddlers Wood Conservation Association, Member
Tookany/Tacony-Frankford Watershed Partnership, Board of Advisors

# KATY JOHNSON, AIA

## Project Architect

Katy' most valuable skills are in the areas of 3D modeling and visualization and project documentation. She typically works on a project throughout the design process, from creating renderings in the early part of design to carrying out the project documentation and detailing. Her design and visualization talents make her particularly valuable on both architecture and exhibit design projects. She holds a Bachelor of Design degree from the Ohio State University and completed her Master of Architecture degree at the University of Cincinnati.

Recent projects include Dow Gardens/Whiting Forest, Children's Discovery Garden exhibits at the Brooklyn Botanic Garden, Wait-Play-Learn areas at the Children's Hospital of Philadelphia, AFS Outside at the Abington Friends School, a multi-stage theater renovation for InterAct Theatre Company in the historic Drake building, and several residential renovations and food service projects.

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### Professional Experience

METCALFE ARCHITECTURE & DESIGN
Philadelphia, PA / 2014 to Present
Project Architect

STUDIOS Architecture
New York, NY / 2010-2013
Architectural Intern

FME Architecture + Design
San Francisco, CA / 2012
Architectural Intern

### Education

University of Cincinnati
Cincinnati, OH
Master of Architecture, 2014

The Ohio State University
Columbus, OH
Bachelor of Science in Design, 2009

### Registration

Pennsylvania
NCARB Certified

### Awards

Outstanding Graduate Student Award / 2014
University of Cincinnati

First Place Design Build Studio
ACSA Architectural Education Award / 2013-2014

Academic Merit Scholarship / 2009-2014
University of Cincinnati

# CLIENT LIST

## Learning Environments

Abington Friends School, Jenkintown, PA
Atlantic Cape Community College, Mays Landing, NJ
Bloomsburg University, Bloomsburg, PA
Camden's Promise Charter School, Camden, NJ
Catapult Learning, Camden, NJ
Central Bucks School System, Doylestown, PA
Central Michigan University, Mt. Pleasant, MI
Community College of Philadelphia, Philadelphia, PA
Community Partnership School, Philadelphia, PA
Delaware State University, Dover, DE
Delaware Valley Friends School, Paoli, PA
Dr. Ethel Allen School, Philadelphia, PA
Franklin Mint Federal Credit Union Foundation, Broomall, PA
General George Meade School, Philadelphia, PA
Greene Street Friends School, Philadelphia, PA
Haverford College, Haverford, PA
The Haverford School, Haverford, PA
Julia R. Masterman Laboratory and Demonstration School, Philadelphia, PA
Jubilee School, Philadelphia, PA
LaSalle University, Philadelphia, PA
Mastery Charter School - Gillespie Campus, Philadelphia, PA
Monmouth University, West Long Branch, NJ
Scranton Public Schools, Scranton, PA
Settlement Music School, Philadelphia, PA
Southwest Leadership Academy, Philadelphia, PA
Springside School, Philadelphia, PA
The University of Pennsylvania, Philadelphia, PA
Vassar College, Poughkeepsie, NY
Villanova University, Villanova, PA
Widener University, Chester, PA
Wissahickon Charter School, Philadelphia, PA

## Museums and Cultural Institutions

Abington Art Center, Jenkintown, PA
Academy of Natural Sciences of Drexel University Philadelphia, PA
Allens Lane Art Center, Philadelphia, PA
American Museum of Natural History, New York, NY
Bartram's Garden, Philadelphia, PA
Boys & Girls Clubs of Philadelphia, Philadelphia, PA
Brandywine Print Workshop, Philadelphia, PA
Brimstone Historical Society, Sulphur, LA
Brooklyn Botanic Garden, Brooklyn, NY
Bruce Museum, Greenwich, CT
Camden County Historical Society, Camden, NJ
Camp JRF, South Sterling, PA
Center City District, Philadelphia, PA
Chemical Heritage Foundation, Philadelphia, PA
Chesapeake Bay Maritime Museum, St. Michaels, MD
Chieftains Museum, Rome, GA
Children's Museum of Istanbul, Istanbul, Turkey
City of Louisville Historical Museum, Louisville, CO
Community Design Collaborative, Philadelphia, PA
Connecticut Audubon Society, Fairfield, CT
Cultureworks Greater Philadelphia, Philadelphia, PA
Eastern State Penitentiary, Philadelphia, PA
Elmwood Park Zoo, Norristown, PA
Fairmount Water Works Interpretive Center, Philadelphia, PA
First Person Arts, Philadelphia, PA
The Franklin Institute, Philadelphia, PA
Free Library of Philadelphia, Philadelphia, PA
Germantown Jewish Centre, Philadelphia, PA
Hershey Museum, Hershey, PA
Independence Seaport Museum, Philadelphia, PA
Independence Visitor Center, Philadelphia, PA
John James Audubon Center at Mill Grove, Audubon, PA
Kolam Learning Centre, Chennai, India
Manitoba Children's Museum, Winnipeg, Canada
Marie Selby Botanical Gardens, Sarasota, FL
Monticello, Charlottesville, VA
Morris Arboretum of UPenn, Philadelphia, PA
Museum of the American Revolution, Philadelphia, PA
Museum of the Earth, Ithaca, NY
Mütter Museum, Philadelphia, PA
National Clearinghouse for the Defense of Battered Women, Philadelphia, PA
National Museum of Industrial History, Bethlehem, PA
The Nature Conservancy, Conshohocken, PA
New York Botanical Garden, Bronx, NY
New York Hall of Science, Queens, NY
Neuberger Museum of Art, SUNY Purchase, NY
Pennsylvania Historical and Museum Commission, Harrisburg, PA
Philadelphia Zoo, Philadelphia, PA
PhillyCAM, Philadelphia, PA
Please Touch Museum®, Philadelphia, PA
Recyclapolis, Fundación Recylapolis, Santiago, Chile
Staten Island Museum, Staten Island, NY
University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, PA
Vision 2020, Drexel University College of Medicine's Institute for Women's Health and Leadership, Philadelphia, PA
Dow Gardens, Midland, MI
WXPN Public Radio, Philadelphia, PA

# AWARDS

- 2018 SARA Pennsylvania Design Award of Excellence
- **2017 SARA National Design Award of Excellence**
- **2017 American Alliance of Museums Excellence in Exhibition Design Award**
- 2016 City of Philadelphia Commerce Department and the Community Design Collaborative Storefront Challenge - Best Overall Design
- 2015 HGTV Fresh Faces of Design
- **2015 Mid-Atlantic Association of Museums, Building Museums Conference "Buildy" Award**
- 2014 City of Philadelphia Commerce Department and the Community Design Collaborative Storefront Challenge - Best Overall Design
- 2012 PA Society of American Registered Architects Design Award of Merit
- 2012 International Galvanizing Awards, Paris, France Highly Commended project (only North American project to receive this distinction)
- **2010 AIA Philadelphia Awards for Design Excellence Gold Medal Award**
- 2010 AIA Pennsylvania Architectural Excellence Award
- **2010 American Alliance of Museums Excellence in Exhibition Design Award**
- 2010 Best of Philly® Awards
- 2010 International Making Cities Livable - Child-Friendly Communities Design Awards, Green Places Award
- 2010 American Galvanizers Association Hot-Dip Galvanizing Excellence Award
- 2009 Associated Builders and Contractors, Southeast PA Merit Construction Award of Excellence for Best Unique Construction Project
- 2009 PA Society of American Registered Architects Design Award of Honor
- 2009 Preservation Alliance for Greater Philadelphia Grand Jury Winner
- 2008 Mid-Atlantic Construction Magazine Best of 2008 – Small Projects Winner
- 2008 Industrial Perforators Association Design Contest Honorable Mention
- 2007 American School & University Educational Interiors Showcase Competition Featured Project
- 2007 American Alliance of Museums MUSE Awards Honorable Mention
- 2007 Metal Architecture Design Awards Renovations Winner
- 2007 Preservation Alliance for Greater Philadelphia Award of Recognition
- 2007 Industrial Perforators Association Design Contest Honorable Mention
- 2006 Industrial Perforators Association Design Contest 2nd Prize
- 2002 Best of Philly® Awards


Camp JRF | South Sterling, PA

Seidenberg House | Conshohocken, PA

## PUBLICATIONS

Interior Design
Wall Street Journal
New York Times
Philadelphia Magazine
Landscape Architecture
Architect
HGTV
Travel+Leisure
Conde Nast Traveler
Philadelphia Style
Philadelphia Business Journal
Casabella
Philadelphia Inquirer – Inga Saffron
Connecticut Magazine
Jewish Exponent
Context Magazine
Green Source Magazine
Tasrim
C3
Details
AIA Philadelphia
Passport
The Huffington Post
Litchfield Courier Times

# ACCOLADES

**"Metcalfe Architecture & Design is a national treasure!"**
Kristina P. Littell,
*CEO, Wissahickon Charter School*

**"Fabulous, even better real than imagined."**
Gretjen Clausing,
*Executive Director, PhillyCAM*

**"Metcalfe's work is stunning... we are thrilled with the work you did for us."**
Helen Eaton,
*CEO, Settlement Music School*

**"The creative thinking and design expertise of Metcalfe Architecture & Design allowed us to turn an underutilized, low energy space into a high energy and very fun kids' exhibit among the trees."**
Barbara McGrath,
*Creative Director, Philadelphia Zoo*

**"The concepts which (Metcalfe) brought to the table were exciting while at the same time consistent with the Quaker tradition at the College. (They) were good listeners, who were willing to set their architectural "ego" aside to meet the needs of the college's design committee."**
Ron Tola,
*Director of Facilities, College*

**"I continue to be thrilled with the way Metcalfe Architecture & Design is able to understand our vision and convert it into a design that so beautifully matches our values. Metcalfe's creativity, playfulness, and excitement...is wonderful. It is clear that this individual interaction is part of the firm's philosophy — not just another part of the job."**
Rabbi Isaac Saposnik,
*Executive Director, Camp JRF / Eco-Village*

**"...they know how to listen...and design spaces that are fun and playful while still meeting the goals of the institution."**
Frank Aloise,
*CFO, Springside Chestnut Hill Academy*

**"I can say without reservation that we would hire Metcalfe Architecture & Design [again] in the future."**
Jacqueline Genovesi,
*Senior Director of Education, Academy of Natural Sciences of Drexel University*

**"Our first branch is a bright, modern and colorful space that reflects Metcalfe's understanding of retail design, and better yet, boldly projects the culture and personality of our business."**
Jay Goldstein,
*President, Valley Green Bank*

**"This work (at Autumn Run Apartments) was all done within a tight budget with an emphasis on catering to a specific clientele and not over-improving the property. I believe Metcalfe had a significant role in Autumn Run's ultimate 28% increase in occupancy and 20% improvement in gross revenue."**
Michael Cohen,
*President, Rodman Properties*

"We don't stop playing because we grow old;
we grow old because we stop playing."
-George Bernard Shaw

studioludo

**Firm Summary**

Studio Ludo is a 501(c)3 non-profit founded in 2015 whose mission is building better play through research, design and advocacy. Our team has over 15 years of design experience and is certified in playground safety.

Our work is focused in three areas. We initiate, collect and publish research on the impacts of play environments on physical activity and social behaviors in children and caregivers. We offer design assistance and code compliance to help craft remarkable places to play. We advocate at conferences, through social media and with our "State of Play" events for better play spaces for all ages.

We believe that everyone deserves a great place to play; that playgrounds need not cost a million dollars; and that behind every good design decision should be even better science.

**Clients/Partners**

City School
DIGSAU
E&LP
Free Library of Philadelphia
Interface Studio Architects
JeffDESIGN
Make the World Better Foundation
OLIN
RAND Corporation
Roofmeadow
Smith Memorial Playground & Playhouse
Temple University Infant & Child Lab
Urban Roots

**Featured Work**

*A Philadelphia Library Gets 'Risky' With a New Playspace*
WHYY, Plan Philly

*Bricks, Two by Fours and Sharp Edges: Should Playgrounds Be Riskier for Kids?*
Here and Now, NPR

*In Britain's Playgrounds, Bringing in Risk to Build Resilience*
The New York Times

*Big Data Shows The Way To Healthier Playgrounds For All*
Next City

*Waterloo Rebosante*
World Landscape Architecture Magazine

*Designing the Future of Play*
City Lab from the Atlantic

*Play It Up*
Landscape Architecture Magazine

**References**

Richard Roark
rroark@theolinstudio.com

Joel Nichols, Strategic Initiatives, Free Library of Philadelphia
nicholsj@freelibrary.org

Melissa Muroff, Roofmeadow
mmuroff@roofmeadow.com

**Certifications**

National Recreation and Park Association
Certified Playground Safety Inspector
CPSI #32886-1118

ludo, from the latin "ludere"
translation "I play"

# Play-And-Learn Spaces
# Free Library of Philadelphia

studioludo

**Project:** Play-and-Learn Spaces
**Client Contact:** Joel Nichols
Free Library of Philadelphia
**Project Budget:** $350,000
**Scheduled Completion:** Winter 2017-Spring 2018

Our team, in partnership with DIGSAU, Smith Memorial Playground and Playhouse and Erector Sets, is working with three branches of the Free Library of Philadelphia to create indoor play spaces and ongoing play programming.

Studio Ludo and Smith led the community engagement process, which involved a series of play workshops where children and caregivers developed their versions of what play could be at with loose parts, giant murals, fort building, and model making.

Playful learning was an integral part of the design. Every branch has a set of tangram blocks, for building, sitting, and lounging. One branch has a spelling climbing wall, while another has a tall reading perch. Each branch has tangram nooks inside the bookshelves, which perform double duty as storage for the blocks. A stage at two branches is popular for story time and lounging. Lastly, many surfaces have magnetic components, such as small tangram sets, alphabet, numbers, words, and magnetic wooden building blocks.

All of the branches will be studied before and after installation in partnership with the Temple University Infant and Child Lab, to understand how these elements support playful learning at the Free Library of Philadelphia.

"Play is often talked about as if were a relief from serious learning. But for children, play is serious learning."
-Fred Rogers

# Study of Play Features and Value
# NYC Parks

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**Project:** Study of Play Features and Value
**Client Contact:** Sarah Nielson
NYC Parks
**Project Budget:** Confidential
**Project Completion:** 2018

The goal of the 'Study of Play Features and Value' was to determine which aspects of playground program design within the NYC Park system deliver the most value, in terms of:

- Inspiring and enhancing park usership and play (play value)
- Creating inclusive spaces, serving all ages, abilities, and genders (social value)
- Whole life cycle costs (installation, maintenance/durability)

Studio Ludo provided professional direction in study design (included executing the SOPARC methodology, identifying a range of play features and play types for observation, and direction on minimizing confounding variables related to exogenous conditions), created and executed a Field Researcher orientation program to train staff in the System for Observing Play and Recreation in Communities (included lecture about the context of the playground feature study and potential implications of the research, definition of the terms to be observed (defining play feature types and play types), and field test run at two study parks to acclimate the interns to the methodology and tools), provided regular data cleaning, and developed a playground assessment report of the 25 observed sites related to play value, social value, and whole life cycle costs, in order to impact future NYC Parks installations.

"Play is the highest form of research."
- Albert Einstein

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# Meghan Talarowski
# MLA, CPSI

Meghan is the founder and director of Studio Ludo, a non-profit dedicated to building better play through research, design and advocacy. She has degrees in architecture and landscape architecture, over 15 years of experience in the design field, and is a certified playground safety inspector.

Her research focuses on how the design of play environments impacts physical health and social behavior. She has presented at conferences held by the American Society of Landscape Architects, the International Play Association, Child in the City, The Association for the Study of Play, and the US Play Coalition.

She was a winner in the 2016 international Play Space design competition, a winner in the 2016 Kaboom Play Everywhere Challenge and a finalist for two projects in the 2015 Knight Cities Challenge.

## Education

| | |
|---|---|
| 2011-2013 | Masters in Landscape Architecture<br>University of Pennsylvania, Philadelphia, PA |
| 1998-2003 | Bachelors in Architecture<br>Illinois Institute of Technology, Chicago, IL |

## Positions and Employment

| | |
|---|---|
| 2015-Present | Founder/Director<br>Studio Ludo, Philadelphia, PA |
| 2014-2015 | Research Development and Knowledge Manager<br>OLIN, Philadelphia, PA |
| 2013-2014 | Author, *Transects: 100 Years of Landscape Architecture and Regional Planning at the School of Design of the University of Pennsylvania* |
| 2013 | Volunteer<br>Public Workshop |
| 2008-2011 | Project Associate<br>The Trust for Public Land, San Francisco, CA |
| 2006-2008 | Landscape Designer<br>GLS Landscape/Architecture, San Francisco, CA |
| 2004-2006 | Architectural Designer<br>Gordon-Greineder, San Francisco, CA |

## Publications

| | |
|---|---|
| 2018 | *Building Better Play: Five Ways London Playgrounds Are Getting It Right*<br>Blogs for Child in the City and the Bernard van Leer Foundation |
| 2017 | *Big Data Shows the Way to Healthier Playgrounds for All*<br>Next City |
| 2017 | *London Study of Playgrounds*<br>www.studioludo.org/s/LondonFullStudyReport.pdf |
| 2016 | *Risky Business: The Dangers of Playgrounds That Are Too Safe*<br>Context: The Journal of AIA Philadelphia |
| 2013 | *Transects: 100 Years of Landscape Architecture and Regional Planning at the School of Design of the University of Pennsylvania* |

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# Meghan Talarowski
# MLA, CPSI

## Lectures/Presentations

| | |
|---|---|
| 2018 | *Shh! A Playspace is Coming to the Library*<br>National conference for the US Play Coalition |
| | *The Kids Aren't Alright: Playgrounds in the Bubble Wrap Generation*<br>Annual Meeting, NJ/NY Chapter of the American Society of Landscape Architects |
| 2017 | *More Popular, More Active, Less Injury, Less Cost: How London Playgrounds Are Getting It Right*<br>Child in the City conference and Urban 95 tour |
| | *The Kids Aren't Alright: Playgrounds in the Bubble Wrap Generation*<br>International Play Association conference |
| | *State of Play in Philadelphia and Beyond*<br>State of Play Forum with Tim Gill, Kathy Hirsch-Pasek & Kathryn Ott Lovell |
| | *Transforming Cities Through Open-ended Nature Play, Community Placemaking & Rainwater Management*<br>Delaware Valley Green Building Council Sustainability Symposium |
| | *Reclaiming Play*<br>National conference for the US Play Coalition |
| 2016 | *The Importance of Good Design: A Comparison of Play in London vs New York, San Francisco, and Los Angeles*<br>National conferences for The Association for the Study of Play and the US Play Coalition<br>American Society of Landscape Architects Online Learning Series |
| | *Design Charrette: Child's Play*<br>Community Design Collaborative |
| 2011 | *Partnerships for Urban Park Renovation: Strategies to Increase Physical Activity in Parks Through Community Knowledge and Participatory Design*<br>Active Living Research Conference |

## Featured Work

| | |
|---|---|
| 2018 | *Why Europes Parks and Playgrounds Are So Much More Active Than America's*<br>Medium, Sidewalk Talk |
| 2018 | *A Philadelphia Library Gets 'Risky' With a New Playspace*<br>WHYY, Plan Philly |
| 2018 | *Bricks, Two by Fours and Sharp Edges: Should Playgrounds Be Riskier for Kids?*<br>Here and Now, NPR |
| 2018 | *In Britain's Playgrounds, Bringing in Risk to Build Resilience*<br>The New York Times |
| 2017 | *Why US Playgrounds Must Emulate UK and Europe*<br>Child in the City |
| 2016 | *Waterloo Rebosante*<br>World Landscape Architecture Magazine |
| 2016 | *Designing the Future of Play*<br>City Lab from the Atlantic |
| 2016 | *Play It Up*<br>Landscape Architecture Magazine |

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# Andrew Jacobs
# MLA

Andrew Jacobs is a Landscape Designer at Studio Ludo. His design approach has been shaped by his experience overseas working in sustainable agriculture and international development. In practice, Andrew is highly attuned to the cultural impacts of land planning on both resource management and on social systems.

Prior work experiences have included training members of a farmers cooperative in agroforestry techniques for the Peace Corps in Togo, West Africa; researching historic agricultural and settlement patterns on Easter Island; and investigating neighborhood identity and its shifting position in Fishtown and West Kensington in Philadelphia. Critical to his design thinking is the link between large-scale systems and localized interventions. As a Philadelphia native, Andrew is committed to the responsible growth of our city and improvement of its public spaces. He believes in design as one of the great mediums for preserving and adapting cultural practices inherent in place-making, and strives to bring responsible design to the next generation of Philadelphia.

## Education

| | |
|---|---|
| 2011-2013 | Masters in Landscape Architecture<br>Rhode Island School of Design, Providence, PA |
| 2003-2007 | Bachelors of Arts in History<br>Bates College, Lewiston, Maine |

## Positions and Employment

| | |
|---|---|
| 2018-Present | Designer<br>Studio Ludo, Philadelphia, PA |
| 2015-2017 | Landscape Designer<br>SALT Design Studio, Bala Cynwyd, PA |
| 2014 | Teaching Fellow<br>Rhode Island School of Design, Providence, RI |
| 2013 | Design Intern,<br>Ager Groupe & DESINE-Lab@RISD, Providence, RI |
| 2012 | Archaeologist/Field Research Assistant<br>Chilean Dept. of Monuments, Easter Island, Chile |
| 2011 | Operations Coordinator<br>Prospect Park Alliance, Brooklyn, NY |
| 2007-2009 | Agroforesty Extension Agent<br>U.S. Peace Corps, Togo, West Africa |

## Honors

| | |
|---|---|
| 2016 | Outstanding Volunteer Award, Community Design Collaborative |
| 2016 | Finalist, Knight Cities Challenge, "Storyboarding Neighborhood Change" |
| 2016 | Team Finalist, PlaySpace International Design Competition |
| 2016-Present | Board Member, Friends of Bainbridge Green |
| 2014 | Guest Speaker, Reinventing Rocky Point, Rocky Point Foundation |
| 2014 | Recipient, Lowthorpe Traveling Fellowship, Rhode Island School of Design |

## Research & Publications

| | |
|---|---|
| 2016 | *Gentrification and the Heterogeneous City: Finding a Role for Design*<br>Co-Author, Harrison, S. and Jacobs, A. , The Plan Journal, |
| 2014 | *Convergent Dwelling: Neighborhood Identity & the Landscape Narrative* |

ThinkGreen LLC

ThinkGreen is a landscape architecture, construction and ecological design firm located 20 minutes from Center City Philadelphia. We offer comprehensive professional services ranging from conceptual planning to construction implementation. The unique experience and knowledge of our team makes our firm qualified to undertake the planning, design, implementation and management of a wide variety of projects.

ThinkGreen focuses on the design and development of landscapes that respect and enhance existing natural systems. We serve both private and public clients who seek innovative, cost efficient and ecologically sensitive solutions. We are both leaders and collaborators, welcoming opportunities to tackle complex projects in conjunction with our associated professions. ThinkGreen is committed to the economic success of every project and maximizing the potential of all who are involved in a project.

*OUR SERVICES:*

**LANDSCAPE ARCHITECTURE & URBAN DESIGN**
Master Planning
Site Planning
Residential Design
Park & Recreation Design
Green Roof Design
Sustainable Stormwater Management
Construction Documentation & Observation
Cost Opinions
Irrigation Design
Lighting Design

**ECOLOGICAL RESTORATION**
Environmental Analysis
Woodland, Streambank & Wetlands
Meadow Creation
Habitat Restoration
Best Management Practices (BMP's)
Landscape Management & Maintenance

**CONSTRUCTION**
Bridges
Pergolas/Trellises
Swimming Pools
Ponds
Dry-Laid Stone Walls
Masonry Patios & Terraces
Green Roofs
USGBC LEED
Excavation/Grading
Erosion & Sediment Control
Soil Bioengineering

landscape architecture • construction • ecological design
P.O. Box 528, Glenside, PA 19038 t: 215.887.2595 f: 215.887.2596 www.thinkgreenllc.com e: tjohnston@thinkgreenllc.com

ThinkGreen LLC

**FIRM STARTED:**
2003 (initially as a traditional landscape architecture firm), in 2004 ThinkGreen Construction began to compliment the design firm and bridge the gap between high end design and the implementation of detailed quality craftsmanship.

**OFFICE STAFF:**
Thomas J Johnston, RLA, ASLA, Principal
Peter S Johnson, RLA, ASLA, Principal
Anna Lavinia Schmitz, RLA
Kristi Lane Anderson, LEED AP, ASLA

**FIELD STAFF:**
+/- 28 Field Crew Members

**DESIGN SOFTWARE:**
AutoCAD, Photoshop, Illustrator

**MAJOR EQUIPMENT:**
Flatbed Trucks, Dump Trucks, Utility Trucks (GVW's ranging from 7,000lbs to 27,000lbs)
Assorted Skid Steers, Mini Excavators, Hydroseeders, Augers, RockHounds and Tiller

**AWARDS:**
2016 **"Excellence in GSI Award, Best Private Project"** for Stroud Water Research Center in Avondale, PA
2016 **"Excellence in GSI Award, Best Public Project"** for Lea Henry C School in Philadelphia, PA
2014 **"ASLA PA/DE Chapter General Design Merit Award"** for Woodland Green Pedestrian Plaza
2014 **"Bowman's Hill Land Ethics Award"** for Haverford Community Recreation and Education Center
2014 **"PLNA Awards for Landscape Excellence: Gold"** for Lafayette Hill, PA Residence
2014 **"PLNA Awards for Landscape Excellence: Gold"** for Philadelphia, PA Residence, Greenroof
2014 **"PLNA Awards for Landscape Excellence: Bronze"** for Woodland Green Pedestrian Plaza
2013 **"Bowman's Hill Land Ethics Award"** for Woodland Green Pedestrian Plaza
2012 **"ASLA PA/DE Chapter Residential Design Merit Award"** for Avalon, NJ Residence
2012 **"The James Rose Center: Suburbia Transformed International Award"** for Avalon, NJ Residence
2012 **"Bowman's Hill Land Ethics Nomination of Excellence"** for Briar Bush Nature Center Entry Renovation
2012 **"PLNA Awards for Landscape Excellence: Gold"** for Almac North American Headquarters
2012 **"PLNA Awards for Landscape Excellence: Bronze"** for Easton, CT Rear Terrace
2011 **"ASLA PA/DE Chapter General Design Merit Award"** for Sunset Park
2011 **"Platinum LEED"** USGBC LEED for Homes Slusher Residence
2010 **"The Montgomery Awards, Excellence in Planning and Design: Revitalization Award"** for Historic Downtown Souderton Streetscape Revitalization
2009 **"Platinum LEED"** USGBC LEED for Homes Woodward Housing
2008 **"Best Sustainable Design & Implementation"** Philadelphia Flower Show
2007 "**Best in Show"** Philadelphia Flower Show

**PUBLICATIONS/PRESENTATIONS:**
***CBS PHILLY TRAVEL & OUTDOOR*** – Featured as a top five landscape architecture/construction company in the Philadelphia region. July 2013
***WATERSHED CONGRESS*** – "Van Sciver Bioretention System – A Case Study of Design and Construction. Presentation March 2013
***GARDEN DESIGN*** – "Green Spaces: How stormwater management is transforming the roads we drive on". Nov./Dec. 2011
***PENNSYLVANIA LANDSCAPE & NURSERY*** – "Firm Profile". July/August 2011
***BOWMAN'S HILL LAND ETHICS SYMPOSIUM 2010*** – "Bridging the Gap: Sustainable Landscapes from Conception to Implementation". Presentation February 2010
***LANDSCAPE ARCHITECTURE & SPECIFIER NEWS*** – "The Three Bears Live! And…Living Well is the Best Revenge". Three Bears Park, Society Hill, Philadelphia, PA. March 2009
***LANDSCAPE ARCHITECTURE & SPECIFIER NEWS*** – "Top Firms of Pennsylvania". September 2008
***CORPORATE BAYSCAPE LANDSCAPING CONSERVATION MANUAL - ALLIANCE FOR THE CHESAPEAKE BAY*** – Case Study – Briar Bush Nature Center, Abington, PA. January 2008

## PROFESSIONAL EXPERIENCE

**Principal – ThinkGreen LLC – Glenside, PA – January 2003 – Present**
Direct the planning and design of all landscape architecture projects, from schematics through implementation.

- **Carroll Park – Philadelphia, PA –** Installation of paving, spray park, playground, site furnishings. Completed Summer 2018
- **West Hill School – Rosemont, PA –** Design and installation of natural playground with climbing logs & boulders, gathering areas, planting, shade structure, and performance space. Completion Fall 2018
- **Delaware Friends School – Paoli, PA –** Installation of steel climbing structure, embankment slide, climbing boulders and logs. Completed Spring 2018
- **Abington Friends School – Abington, PA –** Installation of embankment slide, climbing boulders and logs. paving systems, plantings. Completed Spring 2015
- **Alverthorpe Park – Abington, PA –** Installation of swale and underground rainwater storage to mitigate drainage issues. Completed Fall 2018
- **Community Design Collaborative – Philadelphia, PA –** Cost estimate volunteer for multiple schoolyard and park projects in Philadelphia and the surrounding areas.
- **Merck & Co. –West Point, PA –** Cost estimate for campus master plan. Completed Spring 2018
- **Schuylkill River Trail – Philadelphia, PA –** Installation of vegetated swales and plantings along the Schuylkill River Trail. Completed Summer 2015
- **Lea School – Philadelphia, PA –** Installation of extensive porous paving system and rain gardens. Completed Fall 2015
- **Dickinson College – Carlisle, PA –** Construction of paving systems, stairs, trench drains, rain gardens, plantings. Completed Fall 2014
- **Delaware Center for Horticulture – Wilmington, DE –** Installation of urban tree trench retrofit. Completed Fall 2012
- **Woodland Avenue and 42nd – Philadelphia, PA** – Award-winning Design/Build project of an urban pedestrian plaza. Completed 2012
- **Sunset Park – Ocean City, Maryland – Waterfront Park adjacent to the U.S. Coastguard – ($1.3 Million Budget) –** Design, Construction Documentation & Observation – Completed Summer 2006
- **New Horizons Montessori School – New Horizon – Jarrettown, PA –** Master Plan Design, Documentation, Implementation and Construction for Phase I: Natural Playground. Construction to begin Summer 2010
- **Miquon School Master Plan – Conshohocken, PA –** Conceptual Master Plan Design and Documentation for outdoor playground, gathering spaces, green roof, parking and circulation, and stormwater management. Completed Spring 2015
- **Briar Bush Nature Center – Abington, PA –** Master Plan, Construction Documentation and Permitting of Vehicular Entry, Parking, Pedestrian Circulation and Stormwater Management Improvements & Construction
- **Independence Charter School – Philadelphia, PA –** Construction Management and Construction of the playground including masonry, porous asphalt and a rain garden**.** Completed Summer 2009
- **Greening Greenfield, Albert M. Greenfield Elementary – Philadelphia, PA –** Installation of an educational interpretive garden for stormwater management. Completed Summer2009
- **Riverbend Nature Center Observation Deck and Overlook – Gladwyne, PA –** Design, Construction Documentation, Permitting and Management of an observation deck and overlook structure. In Construction
- **Hanson Park Woodland Theatre – Cranford, NJ –** Master Planning, Construction Documentation & Implementation for a five acre park. Completed Summer 2009
- **Hunting Park Community Garden – Philadelphia, PA –** Landscape consulting and installation of community garden including rough sawn white oak pergola and raised planters. Completed 2011
- **Haverford Recreation and Environmental Center– Haverford, PA –** Design and Construction Documentation of landscape plan, infiltration and retention basins, and outdoor terrace. In Progress
- **Delaware River Trail Improvements– Philadelphia, PA -** Design and construction management of seating nodes along the Delaware River Trail. In Progress
- **Forks Township Public Works Facility– Forks, PA –** Design and Construction Documentation of landscape plan, meadows, and a 30,000 sf green roof.

- **Hanover Township Municipal Building – Hanover, PA –** Design and Construction Documentation of landscape plan including infiltration and retention basins and meadows.
- **Cape May Convention Hall Promenade and Dune Restoration – Cape May, NJ –** Design and Construction Documentation of an ocean side public promenade including native coastal plantings and rain gardens. In Progress
- **LEED Greenroof – Philadelphia, PA –** Design, Construction Documentation and Installation of a multi-level greenroof. Completed Summer 2009
- **Platinum LEED Woodward Housing – Chestnut Hill, PA –** Design and Construction of LEED landscape. Completed Spring 2009
- **Saddlers Woods Habitat Restoration Plan – Haddon Township, NJ** – GIS mapping, Master Planning & implementation of invasive eradication & reforestation for 25 acre old growth forest – Completed Winter 2007

**Landscape Architect – Andropogon Associates, Ltd. – Philadelphia, PA 1999-2003**
Managed and designed projects, prepared construction documentation and observed construction for public parks, academic and corporate campuses, wildlife refuge and nature centers. Representative project highlights include:

- **Mongaup Interpretive Visitor Center – National Park Service – Dearpark, Port Jervis NY –** Site - Design & Construction
- **Cusano Environmental Education Center – United States Fish & Wildlife Service – Tinicum, PA –** Site Design, Restoration, Construction Documentation & Review
- **Cornell University West Campus Revitalization Initiative – Ithaca, NY –** Site Design & Construction Documentation
- **University of Pennsylvania – Philadelphia PA –** Site Design & Construction for Freshman Quadrangle
- **Westbank Greenway – Philadelphia Streets Department – Philadelphia, PA –** Site Design, Construction Documentation & Review
- **Blue Ball Park – AstraZeneca – Wilmington, DE –** Master Planning
- **The Ross School – East Hampton, NY –** Site Design & Construction Review
- **West Virginia High Technology Consortium – Fairmount, WV –** GIS analysis

**Landscape Designer - Simone Jaffe Collins Landscape Architecture – Berwyn, PA 1999**

- **Schuylkill Valley Metro – PA –** Draft Environmental Impact Statement
- **Pocono Mountain Vacation Bureau – Wallenpaupack, PA –** Vision Plan for a visitor center
- **Adams County Planning Commission – Gettysburg, PA –** North Gettysburg Trail Feasibility Study
- **Overbrook Country Club – Wayne, PA –** Master plan

**Landscape Architecture Intern – Pennsylvania Horticultural Society – Philadelphia, PA 1998-1999**

**Assistant Superintendent – Bilfinger & Berger (Construction Management) UK Limited – London, England 1998**

**Landscape Designer & Construction Foreman – Bill Johnston Landscape Co. – Willow Grove, PA 1988 – 1997**

## EDUCATION

**Bachelor of Science in Landscape Architecture –** Temple University, Ambler, PA 1996

**Pennsylvania State University –** University Park, PA 1987- 1989

## PROFESSIONAL ASSOCIATIONS

- Registered Landscape Architect, PA, NJ, DE
- American Association of Landscape Architects
- Council of Landscape Architecture Registration Board

## TECHNICAL EXPERTISE

- AutoCAD R-14/2002, GIS Analysis with ArcView 9.1, Microsoft Word, Excel, Adobe Photoshop

# Firm Profile

**Stahl Sheaffer Engineering, LLC** (Stahl Sheaffer) is a multi-discipline civil/structural engineering firm, headquartered in State College, that has been providing structural and site engineering services since 2006. Stahl Sheaffer specializes in land development, building design and rehabilitation, surveying, construction inspection, traffic and roadway engineering, and asset management. We are constantly updating our technologies to support our services, including a survey-grade LiDAR system and a mid-sized Matrice 200 Series drone.

Stahl Sheaffer provides a wide range of services related to parks and playgrounds, including park facility Master Planning, site design, stormwater management, project management, and reconstruction.

**Stahl Sheaffer Experience in State College**

Members of our staff have formerly worked at the State College Borough, and served as local township engineers. We know the processes involved in moving engineering designs through State College Borough and other local municipal staff reviews, design review boards, and planning commission approvals and have experience coordinating projects between entities with a vested interest such as universities and townships.

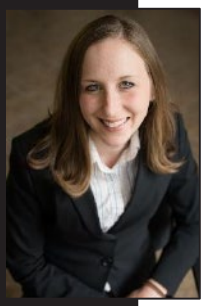
Stahl Sheaffer has long-standing relationships within the State College area, and brings a local site planning perspective, with extensive project experience both as collaborative design consultants, and as design consultants hired to complete land development and zoning documents for approval. Stahl Sheaffer has completed close to 500 projects in the State College area. Our Land Development department has coordinated 75 projects through the permitting processes with either the Borough or neighboring Ferguson and College Townships.

Being located within close proximity to the project sites will ensure timely coordination for site planning, approvals, and consulting coordination during construction, ensuring quick and efficient response to SCASD requests.

We have experience working with SCASD, and also for supporting master plans at local parks, including Oak Hall Park, White Hall Park, Autumnwood Park, and Fairbrook Park, many of which we have enclosed project profiles for a more detailed description of work performed.

STAHL SHEAFFER ENGINEERING

# Robyn Froehlich, P.E., LEED AP – Project Manager



## EDUCATION

Bachelor of Science in Civil Engineering, Minor in Environmental Engineering
The Pennsylvania State University (2004)

## PROFESSIONAL EXPERIENCE

Ms. Froehlich is a Project Manager in Stahl Sheaffer's Land Development Department. She has a B.S. in Civil Engineering and a minor in Environmental Engineering from The Pennsylvania State University. She is a Professional Engineer in Pennsylvania, a LEED Accredited Professional, and a Certified Professional in Erosion & Sediment Control. Prior to her land development experience in private consulting, Ms. Froehlich served on active duty in the United States Air Force as a civil engineering officer.

## REPRESENTATIVE PROJECTS

Relevant projects include:

- **State College Areas School District Panorama Village, State College, PA** — Project manager for site design engineering services for the 2,500-square foot addition for storage space along with approximately 33 parking spaces for the State College Area School District's Panorama facility. Services include survey, site engineering, land development submission, and bidding assistance. In addition to site layout, the project will also involve grading, post-construction stormwater management, and erosion and sediment control requirements.
- **Brandon Park, Williamsport, PA –** Project Manager for design services for the rehabilitation of Brandon Park. Design aspects of the project include the development of a nature play space with an educational stormwater management component, expansion of existing parking areas and pathways to accommodate for ADA accessibility, improvements to bench placements and site lighting, and resealing and replacement of court lights for the six existing tennis courts. As the lead consultant, Stahl Sheaffer will carry the contract to completion, along with BSA / LA Landscape Architect, Brian Auman, and Nature Play Consultant, Elizabeth Marcello.
- **Oak Hall Regional Park, Harris Township, PA** — Managed the land development for the creation of a master plan for Oak Hall Park, a new regional park facility in State College, PA. Park facilities include four softball fields, a restroom and concession building, a perimeter walking trail, parking areas, plantings and benches. Stahl Sheaffer's specific roles included analysis of stormwater, sanitary service, grading, and traffic impacts for the proposed improvements to the site. The project is on the top of a hill, surrounded by woods, and has many different rain garden/stormwater management features in the design.
- **South Williamsport Borough Community Park, Lycoming County, PA**— Managed site design, permitting and construction administration for the construction of a continuous bank of five (5) asphalt tennis courts, perimeter chain-link fencing and access gates, and installation of ADA accessible spaces and walkways. Evaluation of the existing court lighting system was also completed in preparation for future completion.

- **Whitehall Road Regional Park, Ferguson Township, PA** — Managing the design effort for the site engineering and land development plan submissions, including approvals and permits such as DEP NPDES, Erosion and Sedimentation Control Plan, PennDOT Highway Occupancy Permits, DEP Utility Line Stream Crossing Permit, and Public Water Service Verification.
- **Penn State University West Campus Recreation Fields Phase 1, State College, PA** — Project manager for the supplemental survey, site design, land development services, and site permitting for the expansion of the western (upper) field, fencing modifications, construction of a gate house, and preparation for future buildings between the fields to be used for storage, maintenance, and restrooms. The project will also include site work to provide ADA, pedestrian, and maintenance vehicular access, as well as stormwater management for the proposed impervious surfaces.
- **Penn State Mont Alto Campus Parking Lot Reconstruction, Mont Alto, PA** — Completed design for reconstruction of aging primary commuter parking facility (255 spaces), which included hydrologic and hydraulic design, parking lot expansion, stormwater management design, and replacement of exterior site lighting.
- **Young Scholars of Central PA Charter School, State College, PA** — Project manager for survey and land development plan preparation of a 9-acre parcel for the construction of the Young Scholars Charter School and subsequent structural and parking facility additions. Ms. Froehlich managed multiple phases of development. The project included site layout and grading, parking lot design and layout, stormwater management, erosion and sedimentation control plan, landscaping, site lighting, buffer yard landscaping designs, and bidding assistance.
- **Sugar Valley Charter School, Loganton, PA** — Project manager for the redesign and approvals for the land development plan submission and construction administration of a 20,000-sf addition with related parking and improvements.
- **Penn State Jeffrey Field, University Park, PA** – Managed site design for replacement of an existing 6" CMP storm sewer that served as the underdrain connection for drainage. The existing storm sewer had been disconnected due to damage caused by prior construction, and the existing 400 feet of storm sewer located downstream of the disconnected area was subsequently found to be crushed and silted closed in several locations during investigation by Penn State OPP. The project replaced the inoperable sections of storm sewer, increased the drainage capacity, and improved drainage of the adjacent practice field through the addition of several yard inlets.

## CREDENTIALS

- Professional Engineer (P.E.): PA (#PE080621) 2013
- LEED Accredited Professional (2009)
- Certified Professional in Erosion & Sediment Control (2009)
- American Society of Civil Engineers


GAP


# 5. RECENT PROJECTS

## MASTER PLANNING/INFORMAL LEARNING ENVIRONMENTS

## The Whiting Forest Comprehensive Plan
## Dow Gardens

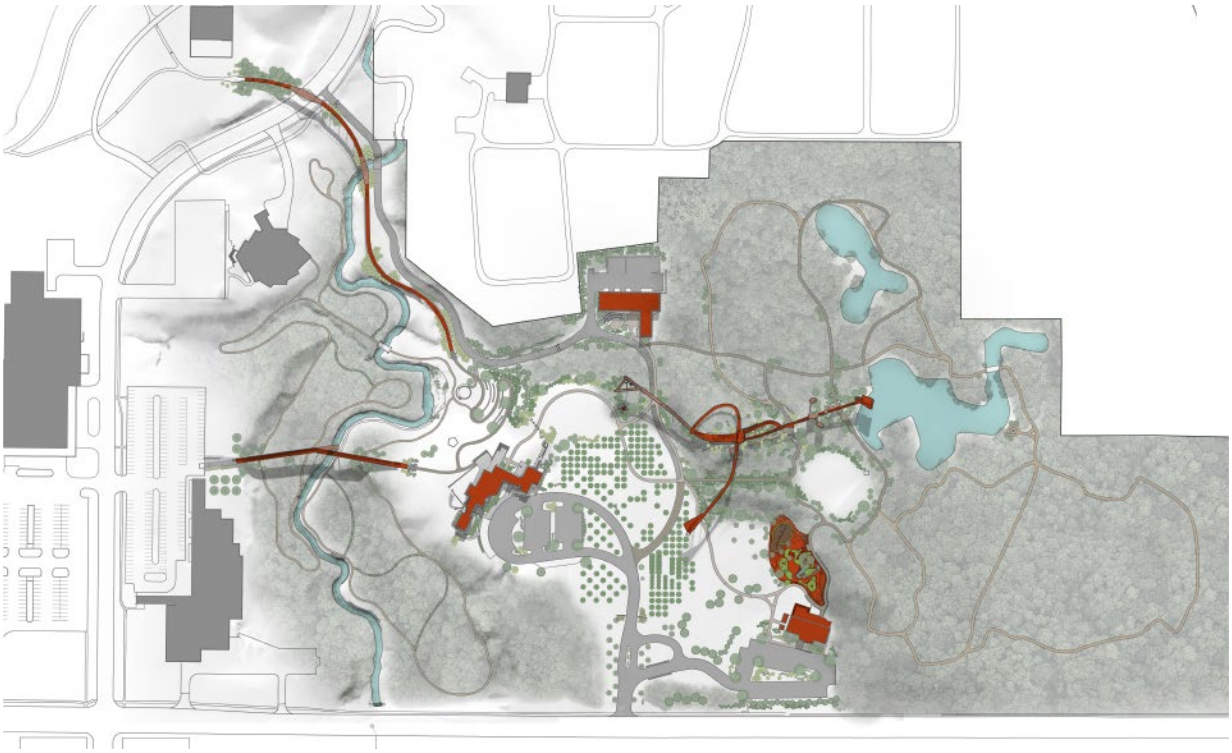
Midland, Michigan

**Opening fall 2018.**
**Phase One-$22M**

The Dow Family Trust asked us to **heighten the connectivity** between Dow Gardens and Whiting Forest by **developing real physical infrastructure and experiential moments** throughout this 80 acre forest and meadow campus.

The success of this project will be in **linking the site's disparate parts through a series of outdoor programmed spaces and active zones**, including two bridges, amphitheater, art center, visitor center (mid-century modern restoration), rental lodge, nature play area and an expansive 3,000 SF canopy walk. The design creates a transition from formal garden, to open space and into woodland by utilizing bridges, earthen berms of wildflowers and a new apple orchard.

We **collaborated** with the Dow to create both the **physical and programmatic vision.** We are creating a series of experiences along defined trails without constraining visitors to those trails. The further visitors venture off the trial the closer they will come to experiencing "wild" nature. These experiences vary from painting at the arts center, building log cabins, hanging in netting and shelters high above the campus in the tree canopy walk to playing in waterfalls at the nature play playground.




Love
MAKE
TODAY
AWESOME

## Abington Friends School
## Phase II: AFS Outside

Jenkintown, PA

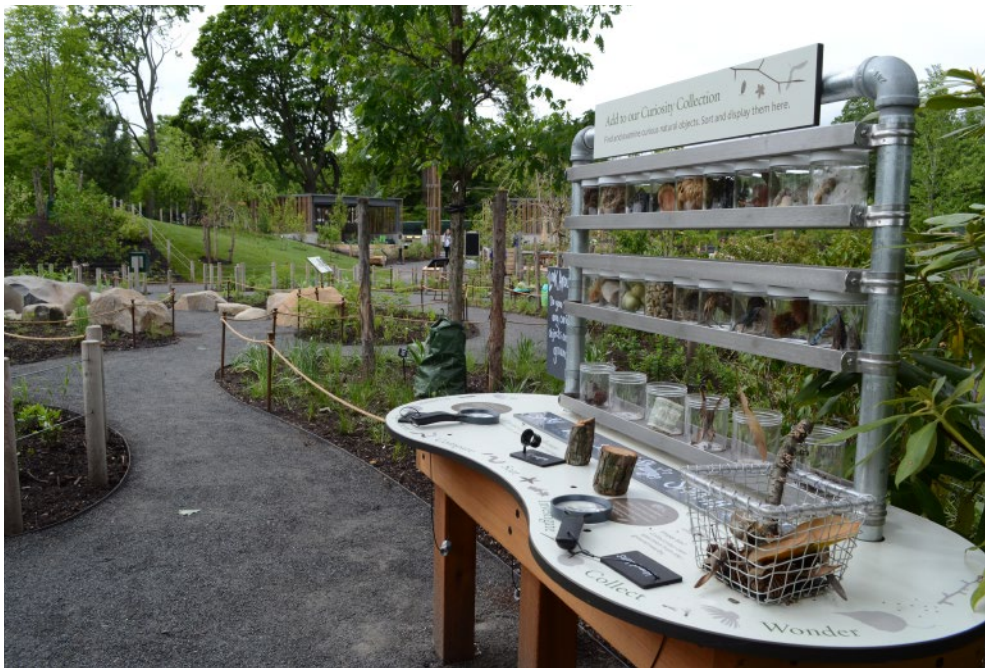
We worked with the Abington Friends School to design a much larger outdoor learning environment, AFS Outside. AFS Outside is as central to the school's curriculum as classrooms or labs. The goal of the project is to support an intimate connection between the landscape and the children, so they can make life-long connections between their activities and their environment. Challenging young students to take physical risks, explore science on their own terms as it occurs in the real world, is at the core of their curricular goals for the project.

## Brooklyn Botanic Garden

Brooklyn, NY

We collaborated with the staff of Brooklyn Botanic Garden to create the interpretive experiences for their new Discovery Garden. Water play, nest-building, plant identification games and a host of other hands-on activities engage entire families in this beautiful Brooklyn oasis. Michael Van Valkenburgh Associates were the landscape architects on the project.


Where do fruits come from?
Investigate the fruit trees in front of you.
What stage of fruit making are they in?
TURN THE WHEEL


Add to our Curiosity Collection
Collect
Wonder

# The London Study of Playgrounds
## London vs Los Angeles, San Francisco, and New York

studioludo

**Project:** London Study of Playgrounds
**Parner Contact:** Deborah Cohen, RAND Corporation
Senior Physician Policy Researcher
dcohen@rand.org
(310) 393-0411, x6023
**Project Budget:** $175,000
**Project Completion:** Fall 2017

Research is the core of our organization, and directly informs our design process. The London Study of Playgrounds serves as the basis for much of our thinking about play, and helped to launch Studio Ludo.

Over a six month period in the spring of 2015, we visited forty five playgrounds within the ten kilometer (approximately six mile) radius of the center of London and selected sixteen as part of our study. Upon returning to the U.S., we compared our findings to the National Study of Neighborhood Parks by the RAND Corporation, to understand the influences of the design of playgrounds on play behaviors and physical activity levels in children and teens.

The final report containes a summary of our methodology, detailed maps, images of the sixteen play spaces and of uses by all ages, analysis of behaviors related to play surfaces and structures, as well as an assessment of playground injury rates and cost differences in the U.K. vs U.S. This research was featured in The New York Times and Medium.

http://www.studioludo.org/s/LondonFullStudyReport.pdf


"Life without a swing is a misunderstanding."
- Hugo Kukelhaus

# Study of Play Features and Value
# NYC Parks

studioludo

**Project:** Study of Play Features and Value
**Client Contact:** Sarah Neilson, NYC Parks
Chief of Policy and Long-Range Planning
Sarah.Neilson@parks.nyc.gov
(212) 360-3438
**Project Budget:** $85,000
**Project Completion:** Fall 2018

The goal of the 'Study of Play Features and Value' was to determine which aspects of playground program design within the NYC Park system deliver the most value, in terms of:

- Inspiring and enhancing park usership and play (play value)
- Creating inclusive spaces, serving all ages, abilities, and genders (social value)
- Whole life cycle costs (installation, maintenance/durability)

Studio Ludo provided professional direction in study design (executing the SOPARC methodology, identifying play features and play types for observation, and direction on minimizing confounding variables), created and executed a Field Researcher orientation program (lecture about the context of the playground feature study and potential implications of the research, definition of the terms to be observed, and field test run at two study parks to acclimate the interns to the methodology and tools), provided regular data cleaning, and developed a playground assessment report of the 25 observed sites related to play value, social value, and whole life cycle costs, in order to impact future NYC Parks installations.

"Play is the highest form of research."
- Albert Einstein

# 6. APPENDIX

## 1. EXAMPLE OF PLAYGROUND SAFETY COMPLIANCE AUDIT FORM

- Studio Ludo completed this safety compliance audit form for the Perelman Jewish Day School to inform the school of maintenance, replacements and repairs needed to meet the required safety guidelines in their existing play area.
- Each school in the SCASD that we will examine in this master plan process will receive a similar report in order to assist the team in making design decisions

## 2. EXAMPLE OF SAFETY AUDIT SUMMARY

- Studio Ludo completed this site assessment to assist the community at the Waterloo Playground in making design decisions based on use and demographics.
- Each school in the SCASD that we will study in this planning process will be assessed using similar, but unique criteria to understand the needs of each school.

# Playground Safety Compliance Audit Form

Inspector (print) Meghan Talarowski Signature _____ CPSI # 32886-1118

Date 5/14/18 Time 2:00 pm Weather Sunny, 80 degrees

Playground Name and/or Identification Number Perelman Jewish Day School - Forman Center

Injuries to children may occur from many types of playground equipment and environmental conditions. The checklist on the following pages will help you to assess and correct safety concerns that may be present on or near your playground. While it does not cover every potential safety concern in a children's environment, it is an overview of most known playground safety concerns. The checklist does not apply to home playground equipment, amusement park equipment, or to equipment normally intended for sports use. The checklist also does not address the many important issues of child development that pertain to play.

The playground safety compliance audit form is not a regulatory standard, but a compilation of suggested guidelines based upon the *Public Playground Safety Handbook* written by the U.S. Consumer Product Safety Commission (CPSC)[1] Revised November 2010; American Society for Testing and Materials (ASTM)[2] F1487-11 Standard; Department of Justice 2010 ADA Standards for Accessible Design (2010 Standards) for Title II (28 CFR Part 35) and Title III (28 CFR Part 36), Sections 240 and 1008 Play Areas[3] (These accessibility standards published in the Federal Register on September 15, 2010 can be found at: *http://www.ada.gov/regs2010/2010ADAStandards/2010ADAstandards.htm*) and expert opinions from individuals with a vast amount of experience in the field of playground safety.


### Acknowledgments:

- Created from the "Statewide Comprehensive Injury Prevention Program" (SCIPP), Department of Public Health, 150 Trecost Street, Boston, MA 02111
- Adapted as Wheaton Park District's "Initial Playground Safety Audit" September, 1989, Revised December 20, 1990 and November, 1991, Ken Kutska, CPRP
- Edited and updated June, 1992, by Ken Kutska, CPRP, and Kevin Hoffman, ARM, Park District Risk Management Agency
- Edited and updated March, 1998, by Ken Kutska, CPRP, CPSI; Kevin Hoffman, ARM, CPSI, and Tony Malkusak, CPRP, CPSI
- Edited and updated March, 1998, by Ken Kutska, CPRP, CPSI; Kevin Hoffman, ARM, CPSI, and Tony Malkusak, CPRP, CPSI
- Edited and updated March, 2003, by Ken Kutska, CPRP, CPSI; Kevin Hoffman, ARM, CPSI, and Tony Malkusak, CPRP, CPSI
- Excel™ formatted 2004, revised citations to 2008 CPSC *Handbook* and ASTM F1487-07ae[1] Standard, August, 2008, by Steve Plumb, CPRP, CPSI
- Revised September 2008 by IPSI, LLC, Ken Kutska, CPRP, CPSI, Executive Director
- Revised August 2011 by IPSI, LLC, Ken Kutska, CPRP, CPSI, Executive Director


1. U.S. Consumer Product Safety Commission, (CPSC), 4330 East West Highway, Bethesda, MD 20814
2. American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive West Conshohocken, Pennsylvania 19428
3. U.S. Access Board, 1331 F Street, NW, Suite 1000, Washington, DC, 20004 (*http://www.ada.gov/regs2010/ADAregs2010.htm*)

# Five Level Safety Concern Priority Rating System

| Rating<br>Safety Concern Priority | Description<br>Condition Likely to Cause |
|---|---|
| **Priority 1 Safety Concern** | Non-compliant safety concern that may result in permanent disability, loss of life or body part.<br>Condition should be corrected immediately. |
| **Priority 2 Safety Concern** | Non-compliant safety concern that may result in temporary disability.<br>Condition should be corrected as soon as possible. |
| **Priority 3 Safety Concern** | Non-compliant safety concern that is likely to cause a minor (non-disabling) injury.<br>Condition should be corrected when time permits. |
| **Priority 4 Safety Concern** | Non-compliant safety concern whose potential to cause an injury is very minimal.<br>Condition should be corrected if it worsens. |
| **Priority 5** | The item has been determined to be compliant with the owner/operator's operating policy and standard of care.<br>Continued ongoing preventive maintenance is recommended. |

# Playground Safety Audit Forms

## Background Information

Page 1

**IMPORTANT: This information has been prepared to assist the agency's attorney in defending potential litigation. Do not release to any person except an agency official, insurance representative, or an investigating police officer.**

**Play Area:** Perelman Jewish Day School Forman Center **Date:** 5/14/18

**Eqpt Type:** Composite Structure, Swings, Climber **Surface:** EWF

**Audited By:** Meghan Talarowski **Intended User Age:** 2-5, 5-12

## General Environment

**1. Category of Playground:** (check all that apply)

_____ Community Park _____ Public School _____ Childcare Center

_____ Neighborhood Park/Tot Lot ___X___ Private School Other: _____

**2. Equipment Inventory:** (indicate the number of equipment pieces that exist)

| A. Composite Structures | | B. Freestanding Eqpt | | C. Site Amenities | |
|---|---|---|---|---|---|
| stairways/step ladders | 2 | swings (to-fro) | 3 | benches | 3 |
| stairways/step ladders | | rotating swings | 2 | tables | 4 |
| rigid climbers | 7 | seesaws | | water fountains | |
| flexible climbers | | slides | | bicycle racks | |
| decks/platforms | 8 | rigid climbers | 3 | wheelchair parking | |
| play panels | 2 | flexible climbers | | signs (safety) | 1 |
| slides | 6 | upper body eqpt | 1 | litter barrels | 1 |
| sliding poles | 1 | rocking eqpt | | fencing | 1 |
| horizontal ladders | 1 | merry-go-round | | accessible route to play area | |
| horizontal rings | | spinner (< 20" D) | | other | Ball game |
| track rides | | sand play area | 1 | other | |
| crawl tunnels | | backhoe digger | | other | |
| clatter/other bridges | 3 | play panels | 1 | | |
| ramps | | stepping pods | 4 | | |
| transfer stations | 3 | net climber | | | |
| roofs | | other | Slide | | |
| other | Steppe | other | Rocker | | |
| other | Spinne | other | Fitness Equipment | | |

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# General Environment (continued)

### 3. Playground Perimeter Concerns

**Directions:** Check all potential concerns that exist, and indicate the actual distance item is from play area border. The owner/operator shall evaluate each border concern for possible mitigation.

Page 2 August 2011

| Playground Perimeter Concerns | Distance from Border | Priority Rating | Comments |
|---|---|---|---|
| 1st public street | >50' | | |
| 2nd public street | >50' | | |
| 3rd public street | n/a | | |
| 4th public street | n/a | | |
| streets with heavy traffic | n/a | | |
| water (ponds/streams/ditch) | n/a | | |
| soccer/football field | >50' | | |
| baseball/softball field (home plate) | n/a | | |
| basketball court | n/a | | |
| parking lot | 10-20' | | |
| railroad tracks | n/a | | |
| trees (not pruned up at least 84" within playground area) | 5 | 3 | Only one tree needs pruning, above tot swing. Two branches recommended for removal. |
| golf course | n/a | | |
| quarry pit (cliff-like condition) | n/a | | |
| contaminated area/landfill | n/a | | |
| other (specify) | n/a | | |
| other (specify) | n/a | | |
| other (specify) | n/a | | |

 

## General Environment (continued)



| General Environment Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| 4. If needed, fence is provided for perimeter concerns. See Pg 2 for list of concerns. (CPSC 2.1) (Fencing Reference ASTM F2049) | | | | |
| 5. Shaded area is provided. (CPSC 2.1.1) | | | | |
| 6. Play area is visible to deter inappropriate behavior. (CPSC 2.2.4) | | | | |
| 7. Equipment not recommended on public playgrounds include… climbing ropes not secured at both ends, trampolines, swinging gates, giant strides, heavy metal swings (animal swings), rope swings, swinging dual exercise rings and trapeze bars. (CPSC 2.3.1) | | | | |
| 8. Playground is accessed safely by a sidewalk that is free of standing water, pea gravel, and low branches and complies with the DOJ 2010 Standard for Accessible Design (min. 80" overhead clearance, 60" min. width, max. cross slope of 1:50 and max. running slope of 1:20, max. gaps of 1/2" and no vertical rise greater than 1/4" without a beveled edge, and finally there should be no depressions greater than 1/2"). | | | | This playground does not meet DOJ Standards. Title III section 36.304 requires the removal of barriers at a playground when doing so is “readily achievable...and able to be carried out without much difficulty or expense.” When/if a disabled educator/student occupies the school, it is recommended the playground become compliant. |
| 9. Seating (benches, tables) is in good condition (free of splinters, missing hardware/slats, sharp edges, etc). (exempt from ASTM F1487) | | | | |
| 10. Signs on all bordering streets advise motorists that a playground is nearby. | | | | Unnecessary due to distance to adjacent roads |
| 11. Trash receptacles are provided and located outside of play area use zone. | | | | |

 

# Materials and Manufacture



| General Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| 1. Playground equipment is manufactured and constructed only of materials that have a demonstrated durability and comply with the Consumer Product Safety Improvement Act of 2008). (ASTM 4.1.2; CPSC 2.5.1) | | | | |
| 2. Metals subject to structural degradation such as rust or corrosion are painted, galvanized or otherwise treated. (ASTM 4.1.1; CPSC 2.5.1) | | | | Minor rust should be sanded, primed, painted with RAL color from manufacturer. If rust has penetrated metal, part should be replaced. |
| 3. Wood materials are naturally rot-resistant or treated to avoid deterioration. (ASTM 4.1.3; CPSC 2.5.5) | | | | All rotted wood edge timbers should be replaced. |
| 4. Plastics and other materials that experience ultraviolet (UV) degradation are UV protected. (ASTM 4.1.1) | | | | |
| 5. Users cannot ingest, inhale, or absorb any potentially hazardous amounts of substances through body surfaces as a result of contact with the equipment. (ASTM 4.1.2 and 4.1.3; CPSC 2.5.4) | | | | |
| 6. Moving suspended elements are connected to the fixed support w/ bearings or bearing surfaces that serve to reduce friction and wear. (ASTM 4.2.3; CPSC 2.5.2) | | | | |
| 7. Steel cable permanently affixed to a hanger assembly performs as a bearing surface. Cable ends are inaccessible or capped. Cables or steel-cored ropes are protected to prevent fraying, loosening, unraveling, or excessive shifting. (ASTM 4.2.3.1) | | | | |
| 8. Creosote-treated wood and coatings that contain pesticides are not used. (ASTM 4.1.3; CPSC 2.5.5) | | | | Ensure that all wood edge timbers do not contain creosote |
| 9. CCA-treated wood is not used, or is regularly coated (min. once/year) w/ a penetrating sealant or stain. (CPSC 2.5.5.1) | | | | Ensure that all wood edge timbers do not contain CCA |
| 10. Play structures are anchored to the ground and not intended to be relocated. (ASTM 5.3) | | | | |

 

# Use Zones



| General Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| **A. Stationary Equipment** | | | | |
| 1. Use zone extends min. 72" on all sides of structure. Equipment intended for user to maintain contact w/ the ground during play (i.e. talk tubes, activity panels) is exempt from use zone requirements. (ASTM 9.2.1; CPSC 5.3.9) | | x | 3 | In tot play area, stand alone steel climber needs 6' use zone on all sides. Move wood edge back and install surfacing. |
| 2. Use zones for 2 or more stationary structures that are play-functionally linked are treated as if separate components are part of a composite unit. (ASTM 9.2.2; CPSC 5.3.9) | x | | | |
| 3. Use zones of stationary equipment and other equipment may overlap. If adjacent designated play surfaces of each structure are < 30", the min. distance between equipment is 72". If adjacent designated play surfaces of either structure are > 30", the min. distance between equipment is 108". (ASTM 9.2.3; CPSC 5.3.10) | n/a | | | |
| **B. Rotating Equipment** | | | | |
| 1. Minimum use zone for rotating eqpt is 72" from perimeter. No other structure may overlap this use zone. Rotating eqpt < 20" diameter are exempt and may be 72" apart when each have designated play surfaces < 30" high, or 108" apart when one or both have designated play surfaces > 30" high. (ASTM 9.3.2; CPSC 5.3.4.1) | n/a | | | |
| 2. Single user equipment (i.e. sand diggers) where user maintains contact w/ the ground are exempt from use zone requirements. (ASTM 9.2.1) | n/a | | | |
| 3. No other structure overlaps the use zone of eqpt that rotates around a horizontal axis w/ a designated play surface > 30". (ASTM 9.3.5) | n/a | | | |

 

# Use Zones (continued)



| General Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| **C. To-Fro Swings** | | | | |
| 1. Use zone to front and rear of to-fro swing is 2X where X = distance between pivot point and surfacing by width of beam. (ASTM 9.4.1.1; CPSC 5.3.8.3.3) **Combination Swing Use Zone** should be composed of the individual use zones as defined in 9.4.1 and 9.4.2 or both for the individual suspended elements. (ASTM 9.4.3) | x | | | |
| 2. For swings w/ fully enclosed To-Fro swing seats, use zone is 2W where W = distance between pivot point and top of occupied sitting surface. (ASTM 9.4.1.2; CPSC 5.3.8.3.3) | n/a | | | |
| 3. No other play structure overlaps the front-to-rear use zone of a to-fro swing. (ASTM 9.4.1.3; CPSC 5.3.8.3.3) | x | | | |
| 4. Use zone width is at least as wide as the swing top beam. T-swings use zones have special conditions. (ASTM 9.4.1.4) | x | | | |
| 5. Use zone around support structure is min. 72" in all directions from the structure. Support structure use zones for adjacent to-fro swings may overlap (6' apart). Support structure use zones may overlap w/ other equipment w/ min. 108" between structures. (ASTM 9.4.1.5; CPSC 5.3.8.3.3) | x | | | |
| **D. Rotating Swings** | | | | |
| 1. Use zone is min. horizontal distance of Y+72", where Y = vertical distance between pivot point and top of swing seat. (ASTM 9.4.2.1; CPSC 5.3.8.4.1) | | x | 3 | Distance from legs to edge is 6'. Swing removed, Y not determined. Move edge to equal Y+6'. |
| 2. No other play structure use zone overlaps rotating swing use zone. (ASTM 9.4.2.2; CPSC 5.3.8.4.1) | x | | | |
| 3. Use zone around support structure is min.72" in all directions from the structure. (ASTM 9.4.2.3; CPSC 5.3.8.4.1) | x | | | |
| 4. Support structures of adjacent rotating swings may overlap (6' apart), however, swing bay clearances (Y+30") are not overlapped. (ASTM 9.4.2.4; CPSC 5.3.8.4.1) | x | | | |
| 5. Support structure use zone may overlap use zone of other equipment w/ min. 108" between structures. (ASTM 9.4.2.5; CPSC 5.3.9) | x | | | |

 

# Use Zones (continued)



| General Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| **E. Rocking/Springing Equipment** | | | | |
| 1. Use zone for equipment intended for sitting is min. 72" in all directions from at-rest perimeter. (ASTM 9.5.1.1; CPSC 5.3.7) | x | | | |
| 2. Use zone of adjacent eqpt may overlap when each structure has max. seat height and/or designated playing surface of less than or equal to 30". (ASTM 9.5.1.2; CPSC 5.3.7) | n/a | | | |
| 3. Use zone of rocking/springing eqpt may overlap to 72" apart when each structure has max. designated play surface height < 30"; and to 108" apart when either has a designated play surface higher than 30" unless otherwise specified in ASTM Section 9. (ASTM 9.5.1.3; CPSC 5.3.7) | n/a | | | |
| 4. Use zone for rocking/springing eqpt intended for standing is min. 84" in all directions from the at-rest perimeter. (ASTM 9.5.2.1) | n/a | | | |
| 5. No other play structure use zone overlaps the standing rocking/springing structure use zone. (ASTM 9.5.2.2) | n/a | | | |
| 6. Equipment w/ limited movement or eqpt on which user cannot develop enough force to launch or propel themselves away from the eqpt is exempt from these requirements. (ASTM 9.5.2.3) | x | | | |
| **F. Slides** | | | | |
| 1. Use zone around steps or ladder, chute, platform or slide bed of straight, wavy, or spiral slides is min. 72" from perimeter. (ASTM 9.6.1; CPSC 5.3.6.5) | | x | 2 | In tot play area, stand alone slide needs 6' use zone on all sides. Move wood edge back from stairs. |
| 2. Use zone at exit is min. X where X = vertical distance from highest point of sliding surface to surfacing. Use zone at slide exit is min. 72" and need not be > 96". (ASTM 9.6.2, 9.6.2.1; CPSC 5.3.6.5) | x | | | |
| 3. A clear zone, free of equipment, extends min. 21" from inside of each side wall from the end of the slide to the perimeter of the slide use zone. Clearance zones for two or more parallel slide beds may overlap. Clearance zones for converging slides may not overlap. (ASTM 8.5.6, 9.6.3) | x | | | |

 

# Use Zones (continued)



| General Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| **G. Track Rides** | | | | |
| 1. Track ride use zones are min. 72" in all directions from equipment. (ASTM 9.9.1) | n/a | | | |
| **H. Composite Structures** | | | | |
| 1. Use zone is min. 72" from structure perimeter, and complies w/ use zones established for individual types of eqpt. (ASTM 9.7.1 and 9.7.2; CPSC 5.3.9) | x | | | |
| 2. Professional judgment may be used to eliminate hazards created by circulation conflicts or adjacent structures that are in close proximity. (ASTM 9.7.2) | x | | | |
| **I. Placement of Equipment** | | | | |
| 1. Sufficient space is provided between all adjacent structures and individual play eqpt for the purposes of play and circulation. (ASTM 9.8; CPSC 2.2.4) | x | | | |
| 2. In settings where periodic overcrowding is likely, a supplemental circulation area beyond the use zone is provided, using professional judgement of owner/operator. (ASTM 9.8.2 and CPSC 2.2.4) | x | | | |
| 3. Moving equipment such as swings and rotating equipment are located near the periphery away from circulation routes. (ASTM 9.8.3; CPSC 2.2.4) | x | | | |
| 4. Overhead obstructions within play structure usezones are min. 84" from each designated play surface, the use zone, or the pivot point of swings. (ASTM 9.8.4.1) | | x | | See above re: tree overhang |
| 5. Overhead utility line clearances comply w/ all local, state, and national codes such as National Electrical Safety Code. (ASTM 9.8.4.2) | n/a | | | |

 

# Maintenance, Surfacing, Labeling, Signage



| General Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| **A. Maintenance** | | | | |
| 1. Owner/Operator maintains detailed installation, inspection, maintenance, and repair records for each playground area. (ASTM 13.3; CPSC 4) | | x | 4 | Maintenance and audit forms attached to this report for future use. |
| **B. Protective Surfacing** | | | | |
| 1. Owner/Operator maintains the protective surfacing within the use zone of each play structure in accordance w/ ASTM F1292 w/ a critical height appropriate for the fall height of each structure, and ASTM F1951 where applicable (ASTM 13.2.1; CPSC 2.4) and the Accessible Route in accordance w/ DOJ 2010 Standard (Section 1008.2.6) | | x | 4 | The EWF is lower than recommended in some areas, such as under swings, but does not constitute a hazard. Use stickers on poles as guideline for depth, and replace under swings. |
| 2. Protective surfacing is maintained free from extraneous materials that could cause injury, infection, or disease. (ASTM 13.2.2; CPSC 4) | x | | | |
| 3. Surfacing is well-drained and free of standing water. (ASTM 13.2.2; CPSC 2.4.2.2) | x | | | |
| 4. Written documentation available of laboratory compliance testing ASTM F1292 and F1951 and F2075 for EWF. (ASTM 13.2, 13.3) | | x | 4 | Once installed, request these from the manufacturer for your records. |
| 5. Written documentation available of post installation compliance to the appropriate ASTM Standards. (ASTM 13.3) | | x | 4 | Once installed, request these from the manufacturer for your records. |
| **C. Labeling** | | | | |
| 1. On or near all play structures where applicable have posted a warning label containing... 1) signal word **WARNING**, 2) safety alert symbol (triangle w/ exclamation point inside) preceding signal word, and 3) warning message “Installation over a hard surface such as concrete, asphalt, or packed earth may result in serious injury or death from falls.” (ASTM 14.2.5) | | x | 4 | These are located in some places, but worn and old. Recommend replacement. |
| 2. Manufacturer's identification appears, is durable, and is placed on the play structure. (ASTM 15) | x | | | |
| **D. Information Signage** | | | | |
| 1. Signs or labels provide information for age appropriateness of playground. (ASTM 14.2.1) | | x | 4 | Recommended from manufacturer. |
| 2. Signs or labels provide information stating adult supervision is recommended. (ASTM 14.2.2) | | x | 4 | Recommended. |
| 3. Sign posted to communicate warning for the need to remove helmets, drawstrings and items around the neck due to strangulation. (ASTM 14.2.3) | | x | 4 | Recommended. |
| 4. Sign posted to communicate warning about hot play surfaces and surfacing can cause severe burns to young children. (ASTM 14.2.4; CPSC 2.2.6, 2.5.3, 3.2.1) | | x | 4 | Recommended. |
| 5. Freestanding signs are located outside the equipment use zone to alert the user of the concern in time to take action. (ASTM 14.1.1.2, 14.1.2, 14.1.3) | | x | 4 | Stickers are sufficient. |

 

# Accessibility

This form is provided so that owner/operators can evaluate appropriate accessibility requirements from the Department of Justice 2010 ADA Standards for Accessible Design (2010 Standards) for Title II (28 CFR Part 35) and Title III (28 CFR Part 36), Sections 240 and 1008 Play Areas. This Federal Law became enforceable in March of 2011. These items will not be found in ASTM or CPSC documents but the Law is referenced in both. This Section will assist in your assessment of compliance to the minimum requirements of this Standard.

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| General Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| 1. Outside the play area the Accessible Route (AR) has max. running slope of 1:20 and max. cross slope of 1:50 and a minimum of 60" wide w/ max. abrupt vertical rise – 1/4", or 1/4" + 1/4" beveled, and > 1/2" must be ramp 1:12 max. (DOJ 2010 Standard Sec. 303) | | x | 4 | When/if a disabled educator/student occupies the school, it is recommended the playground become compliant. |
| 2. Inside the play area the AR is at least 60" wide (W), has max. cross-slope of 1:48, and 80" overhead clearance with max. running slope no steeper than (1:16 within) (DOJ 2010 Standard Sec. 1008.2.5.1) Play areas < 1,000 sq ft may have 44" W AR to play area. When 44" AR is > 30' it must have at least one 60" diameter turning space. (DOJ 2010 Standard Sec. 1008.2.4.1) | | x | 4 | See above re: compliance timeline. |
| 3. Elevated ramps are 36" min. w/ a max. run of 144" and running slope less than or equal to 1:12 (ASTM 7.2.4) | | x | 4 | See above re: compliance timeline. |
| 4. Landings have min. 60" diameter at top and bottom of each run when there is a change in direction otherwise it must be equal to width of ramp. Landings w/ play elements have 30x48" wheelchair parking area w/out reducing adjacent circulation path to < 36". (ASTM 7.2.5 and DOJ 2010 Standard Sec. 405 and 406) | | x | 4 | See above re: compliance timeline. |
| 5. Ramps with 2 rails or no rails, barriers beyond the ramp edge, or barriers not extending to w/in 1" of ramp surface must have curb ≥ 2"above the ramp. (ASTM 7.5.5.5 and .6) | | x | 4 | See above re: compliance timeline. |
| 6. Ramps > 30" H (for 2-5 yrs) or > 48" H (for 5-12 yrs) have barriers. (ASTM 7.5.6.1 and .2) | | x | 4 | See above re: compliance timeline. |
| 7. Ramps have handrails (0.95" to 1.55") on both sides at height (H) between 26"-28". (ASTM 7.5.5.5 and DOJ 2010 Standard Sec. 1008.2.5.3.1 and .2) | | x | 4 | See above re: compliance timeline. |
| 8. Transfer point H is between 11-18" w/ clear min. 24" W x 14" D. Transfer steps are max. 8" H w/ handholds to assist with transfer. (DOJ 2010 Standard Sec. 1008.3.1.1 and .2) | x | | | |
| 9. Transfer Point has min. clear space of 60" dia. turning area at base and may overlap parking space but the 48" parking space length (L) dimension must be centered parallel to the 24" W of the transfer platform. (DOJ 2010 Standard Sec. 1008.3.1.3 Transfer Space and ASTM 7.5.4) | x | | | |
| 10. Play area use zone has accessible safety surfacing to all accessible play components. (ASTM 7.1.1) and compliant w/ DOJ 2010 Standard Sec. 1008.2.6 Ground Surfaces) | x | | | Play areas are compliant, but need accessible paths to them and ramped entrances. |

 

# Accessibility (continued)

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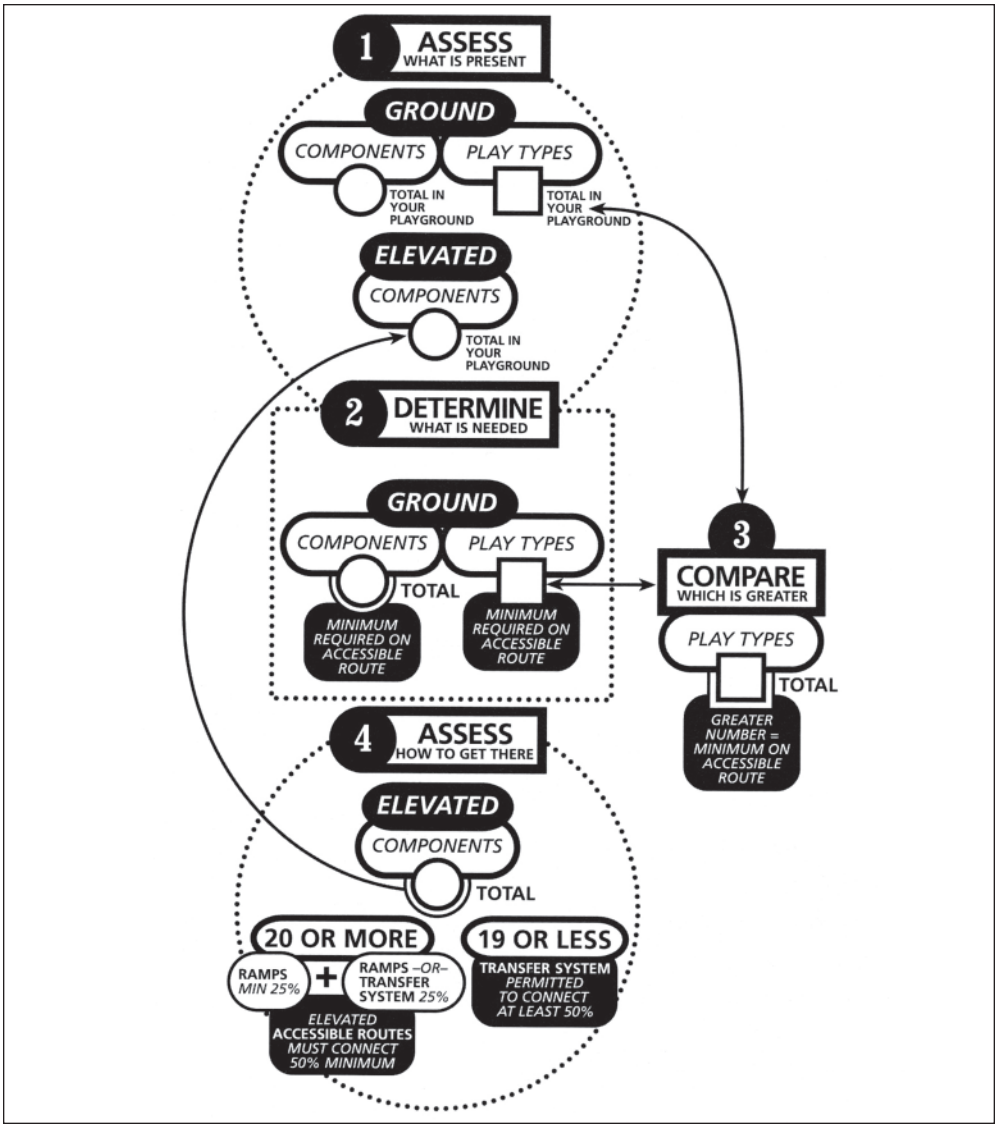
| General Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| 11. Accessible restroom facilities, seating, drinking fountain, and shade are located in or near the play area and on the AR. (DOJ 2010 Standard Sec. 206 Accessible Routes, 206.2.17 Within a Site and Chapter 4) | x | | | Assumed inside the building |
| 12. Openings on elevated wheelchair accessible access/egress points are < 15". (ASTM 7.5.6.3 (1-4) (Step Platforms, Ramps, and Upper Body and Accessible Access/Egress Components exempt.) (ASTM 7.5.5.2(3)) | n/a | | | |
| 13. Accessible Ramps and Platforms have – Max. Horizontal openings 0.5" sphere, Max. vertical rise - 1/4", or 1/4" + 1/4" beveled, and > 1/2" must be ramp 1:12 max. (DOJ 2010 Standard Sec. 302.2 and .3) | | x | 4 | When/if a disabled educator/student occupies the school, it is recommended the playground become compliant. |
| 14. Elevated accessible play opportunities designed w/ different access/egress points, such as slides, allow user to return unassisted to original transfer point. (DOJ 2010 Standard – Advisory Section 1008.3) | x | | | |
| 15. Vertical Knee clearance is min. 24"H, 17"D, 30"W and 31"H max top of playing surface. (DOJ 2010 Standard – Section 1008.4.3 Play Tables) | x | | | |
| 16. Accessible upper body eqpt, such as horizontal ladders and rings, are < 54" H. (ASTM 8.3.3) | | x | 4 | See above re: compliance timeline. |
| 17. Accessible manipulative play eqpt, such as panels, are between 20-36" H for 2-5 year olds and 18-44" H for 5-12 year olds. (DOJ 2010 Standard – Section 1008.4) | x | | | |
| **Refer to Accessibility Flow Chart for Questions 18 and 19 DOJ 2010 Standard Section 240.2 Play Components** | | | | |
| 18. A. Where ground level components are provided at least one of each type shall be on AR. (DOJ 2010 Standard Sec. 240.2.1.1) | x | | | Play areas are compliant, but need accessible paths to them and ramped entrances. |
| B. Meet minimum # Ground Level Play Components and Play Types on AR. (DOJ 2010 Standard Sec. 240.2.1.2) | | x | 4 | All components accessible except Tot Area Ball Hoop Game. |
| 19. Elevated AR connects minimum 50% Elevated Play Components by Ramp or Transfer. NOTE: 20 or more Elevated Play Components require minimum of 25% connected by Ramp. If 50% or more elevated play components are accessible by ramp they must be at least 3 different types. (DOJ 2010 Standard Sec. 240.2.1.2) | | x | 4 | Play areas are compliant, but need accessible paths to them and ramped entrances. |
| 20. All access points along AR conform to DOJ 2010 Standard Section 206.2.17, and Play Areas Section 240; Chapter 4, 402/403 Accessible Routes minimum 1:20 running slope requirements at transition points w/ side slope transition of 1:48. | | x | 4 | Play areas are compliant, but need accessible paths to them and ramped entrances. |

## Use Flow Chart for Accessibility Section Questions 18 and 19

Table 240.2.1.2
Number and Types of Ground Level Play Components Required to be on Accessible Routes

| Number of Elevated Play Components Provided | Minimum Number of Ground Level Play Components Required to be on an Accessible Route | Minimum Number of Different Types of Ground Level Play Components Required to be on an Accessible Route |
|---|---|---|
| 1 | Not applicable | Not applicable |
| 2 to 4 | 1 | 1 |
| 5 to 7 | 2 | 2 |
| 8 to 10 | 3 | 3 |
| 11 to 13 | 4 | 3 |
| 14 to 16 | 5 | 3 |
| 17 to 19 | 6 | 3 |
| 20 to 22 | 7 | 4 |
| 23 to 25 | 8 | 4 |
| 26 and over | 8, plus 1 for each additional 3, or fraction thereof, over 25 | 5 |



# Access and Egress



| General Equipment Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| 1. Steps/rungs are evenly spaced w/in ± .25" and horizontal w/in ± 2º. (ASTM 7.2.1) | x | | | |
| 2. Steps do not allow accumulation of water or debris. (ASTM 7.2.2; CPSC 5.2.1) | x | | | |
| 3. Stairways, step/rung ladders conform w/ access slope; tread, rung, ramp width; tread depth; rung diameter; and vertical rise for intended user group per ASTM Table 2. (ASTM 7.2.3; CPSC 5.2.1) | x | | | |
| 4. Ramps intended for access have a max. horizontal run of 144". (ASTM 7.2.4) | | x | 4 | Currently no ramps for access. When/if a disabled educator/student occupies the school, ramps needed. |
| 5. Landings w/ play components include wheelchair parking space w/ an adjacent circulation path ≥ 36". (ASTM 7.2.5) | n/a | | | |
| 6. Continuous handrails are provided on both sides of stairs w/ > 1 tread; stairs w/ 1 tread have handrail or alternate means of support; Handrail height between 22-38" beginning at 1st step. (ASTM 7.2.6; CPSC 5.2.3) | x | | | |
| 7. Handrails have diameter between .95–1.55". (ASTM 7.2.6.4; CPSC 5.2.2) | x | | | |
| 8. Arch and flexible climbers not sole means of access for users 2-5. (ASTM 7.3.2.1; CPSC 5.2.1, 5.3.2.2, Table 5) | x | | | |
| 9. Climbers used as access provide a means of hand support for use while climbing. (ASTM 7.3.2.5; CPSC 5.2.2) | x | | | |
| 10. Stairways and stepladders have continuous handrails from access to platform. (ASTM 7.4.1; CPSC 5.2.3) | x | | | |
| 11. Accesses w/o handrails (rung ladders, arch climbers, flexible components, etc.) have alternate hand gripping component to facilitate this transition to platform. (ASTM 7.4.2; CPSC 5.2.4) | x | | | |
| 12. Stepping surface for final access on rung ladders, arch climbers, and flexible components are not connected above the designated play surface they serve. (ASTM 7.4.3; CPSC 5.2.1) | x | | | |

# Access and Egress (continued)



| General Equipment Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| 13. Head Entrapment… All components pass entrapment and partially-bounded opening tests. Partially bounded openings < 24" H exempt. (ASTM 6.1, 6.1.4, 6.1.4.7(3)) | x | | | |
| 14. Sharp Points and Edges… Eqpt free of splinters, sharp points, edges; tubing is capped; bolts free of burrs, sharp points, and edges. (ASTM 6.2; CPSC 3.4) | | x | 2 | A few pieces of equipment had perforations in the metal that had rusted and needed to be replaced. |
| 15. Protrusions… All components pass protrusion test. Nuts, bolts, screws recessed, covered, or sanded smooth and level. (ASTM 6.3; CPSC 3.2) | | x | 2 | No bolt shall have more than two threads exposed. Such bolts should be sawn or capped. |
| 16. Entanglements… No protrusions project upwards > 1/8" from horizontal plane; max. 2 fastener threads protrude through any nut perpendicular to initial surface; any protrusion increasing in diameter from initial surface less than or equal to 1/8" in width and 1/8" in depth is exempt. (ASTM 6.4.2, 6.4.3, 6.4.4) | | x | 2 | No bolt shall have more than two threads exposed. Such bolts should be sawn or capped. |
| 17. Entanglements… All connecting devices (S-hooks, C-hooks, etc.) are closed to within .04"; lower loop of S-hooks does not protrude past the upper loop; lower loop does not overlap. (ASTM 6.4.5.1) Connectors whose interior spaces are completely infilled are exempt. (ASTM 6.4.5.2.1) | x | | | |
| 18. Crush/Shear… All components pass crush shear tests. (ASTM 6.5; CPSC 3.1) | x | | | |
| 19. **Hardware/General Concerns** | | | | |
| Fasteners are corrosion-resistant or have a corrosion-resistant coating. Fasteners cannot beloosened without tools; nuts and bolts are self-locking or have a means to prevent detachment. (ASTM 4.2.1, 4.2.2; CPSC 2.5.2) | ? | x | 3 | All rusted fasteners should be inspected. If rust has gone beyond the surface, it should be replaced. |
| Tires do not trap water; tires have no exposed steel belts. (ASTM 4.3; CPSC 3.7) | n/a ? | | | |
| Equipment is free of rust/chipping paint. (CPSC 2.5.4) | ? | x | 3 | All rust/chipping paint should be sanded, primed and painted. |
| Play area is free of tripping hazards. All anchoring devices are installed below ground level and beneath protective surfacing. Surfacing containment border is highly visible. (ASTM 7.3.2.2; CPSC 3.6) | ? | x | 3 | All anchor pins for edges should be fully embedded and not protruding. |

# Platforms, Landings, and Walkways



| General Equipment Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| 1. Platforms are horizontal w/in a tolerance of ± 2 °. (ASTM 7.5.1; CPSC 5.1.1) | x | | | |
| 2. Platforms, landings, walkways, and ramps do not trap water and accumulate debris. (ASTM 7.5.2; CPSC 5.1.1) | x | | | |
| 3. Platforms, landings, walkways, and ramps, and other elevated surfaces that are accessible to wheelchairs provide a min. 36" clear width; clear width may be reduced to 32" for max. 24". (ASTM 7.5.3) | n/a | | | |
| 4. Turning and parking spaces provided at a transfer point do not overlap. (ASTM 7.5.4) | x | | | |
| 5. Guardrails contain no designated play surfaces. (ASTM 7.5.5) | x | | | |
| 6. Guardrails are present on elevated surfaces > 20" when intended for 2-5, and > 30" when intended for 5-12. (ASTM 7.5.5.1; CPSC 5.1.3) | x | | | |
| 7. Guardrails surround elevated surface except for access and egress openings; max. clear opening w/o a horizontal top rail is 15". (ASTM 7.5.5.2; CPSC 5.1.3) | x | | | |
| 8. Top surface of guardrails min. 29" when intended for 2-5, and 38" when intended for 5-12. (ASTM 7.5.5.3; CPSC 5.1.3) | x | | | |
| 9. Lower edge of guardrails max. 23" when intended for 2-5, and 28" when intended for 5-12. (ASTM 7.5.5.4; CPSC 5.1.3) | x | | | |
| 10. Wheelchair accessible ramps requiring guardrails for either 2-5 or 5-12 year olds have one handrail on both sides between 20-28" H. (DOJ 2010 Standard Section 1008.2.5) | n/a | | | |
| 11. Wheelchair accessible ramps have 2" curb at both edges, unless guardrails and barriers don't extend to w/in 1" of ramp surface, or ramp has 2 rails and no barrier, or if barrier is beyond edge of ramp surface. (ASTM 7.5.5.6) | n/a | | | |
| 12. Barriers contain no designated surface and minimize climbing. (ASTM 7.5.6; CPSC 5.1.3) | x | | | |

## Platforms, Landings, and Walkways (continued)

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| General Equipment Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| 13. Barriers provided on elevated surfaces > 30" when intended for 2-5, and > 48" when intendedfor 5-12. (ASTM 7.5.6.1) | x | | | |
| 14. Wheelchair accessible ramps that require barriers have one handrail on both sides between 20-28" H. (DOJ 2010 Standard Section 1008.2.5) | n/a | | | |
| 15. Barriers surround elevated surface except for access and egress openings; max. clear opening w/o a horizontal top rail is 15". (ASTM 7.5.6.3) | x | | | |
| 16. Top surface of barrier is 29" min. when intended for 2-5, and 38" max. when intended for 5-12. (ASTM 7.5.6.4) | x | | | |
| 17. Adjacent platforms w/ height difference > 12" when intended for 2-5 or > 18" when intended for 5-12 have an access component. (ASTM 7.5.7.1) | x | | | |
| 18. Head Entrapment… All components pass entrapment and partially-bounded opening tests. Partially bounded openings < 24" H exempt. (ASTM 6.1, 6.1.4, 6.1.4.7(3)) | x | | | |
| 19. Sharp Points and Edges… Eqpt free of splinters, sharp points, edges; tubing is capped; bolts free of burrs, sharp points, and edges. (ASTM 6.2; CPSC 3.4) | | x | 2 | A few pieces of equipment had perforations in the metal that had rusted and needed to be replaced. |
| 20. Protrusions… All components pass protrusion test. Nuts, bolts, screws recessed, covered, or sanded smooth and level. (ASTM 6.3; CPSC 3.2) | | x | 2 | No bolt shall have more than two threads exposed. Such bolts should be sawn or capped. |
| 21. Entanglements… No protrusions project upwards > 1/8" from horizontal plane; max. 2 fastener threads protrude through any nut perpendicular to initial surface; any protrusion increasing in diameter from initial surface less than or equal to 1/8" in width and 1/8" in depth is exempt. (ASTM 6.4.2, 6.4.3, 6.4.4) | | x | 2 | No bolt shall have more than two threads exposed. Such bolts should be sawn or capped. |
| 22. Entanglements… All connecting devices (S-hooks, C-hooks, etc.) are closed to within .04"; lower loop of S-hooks does not protrude past the upper loop; lower loop does not overlap. (ASTM 6.4.5.1) Connectors whose interior spaces are completely infilled are exempt. (ASTM 6.4.5.2.1) | x | | | |
| 23. Crush/Shear… All components pass crush shear tests. (ASTM 6.5; CPSC 3.1) | x | | | |

 

## Platforms, Landings, and Walkways (continued)



| General Equipment Conditions | Compliant (YES) | Non-comp (NO) | Priority Rating | Comments |
|---|---|---|---|---|
| 24. **Hardware/General Concerns** | | | | |
| Fasteners are corrosion-resistant or have a corrosion-resistant coating. Fasteners cannot be loosened without tools; nuts and bolts are self-locking or have a means to prevent detachment. (ASTM 4.2.1, 4.2.2; CPSC 2.5.2) | ? | x | 2 | All rusted fasteners should be inspected. If rust has gone beyond the surface, it should be replaced. Replace rusted swing chain and do not use carabiners as replacement. |
| Tires do not trap water; tires have no exposed steel belts. (ASTM 4.3; CPSC 3.7) | n/a ? | | | |
| Equipment is free of rust/chipping paint. (CPSC 2.5.4) | ? | x | 3 | All rust/chipping paint should be sanded, primed and painted. |
| Play area is free of tripping hazards. All anchoring devices are installed below ground level and beneath protective surfacing. Surfacing containment border is highly visible. (ASTM 7.3.2.2; CPSC 3.6) | ? | x | 3 | All anchor pins for edges should be fully embedded and not protruding. |

Reset Form Print Form Save Form

 

# WATERLOO PLAYGROUND

## Site Assessment Preliminary Report

mtwb
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URBAN ROOTS

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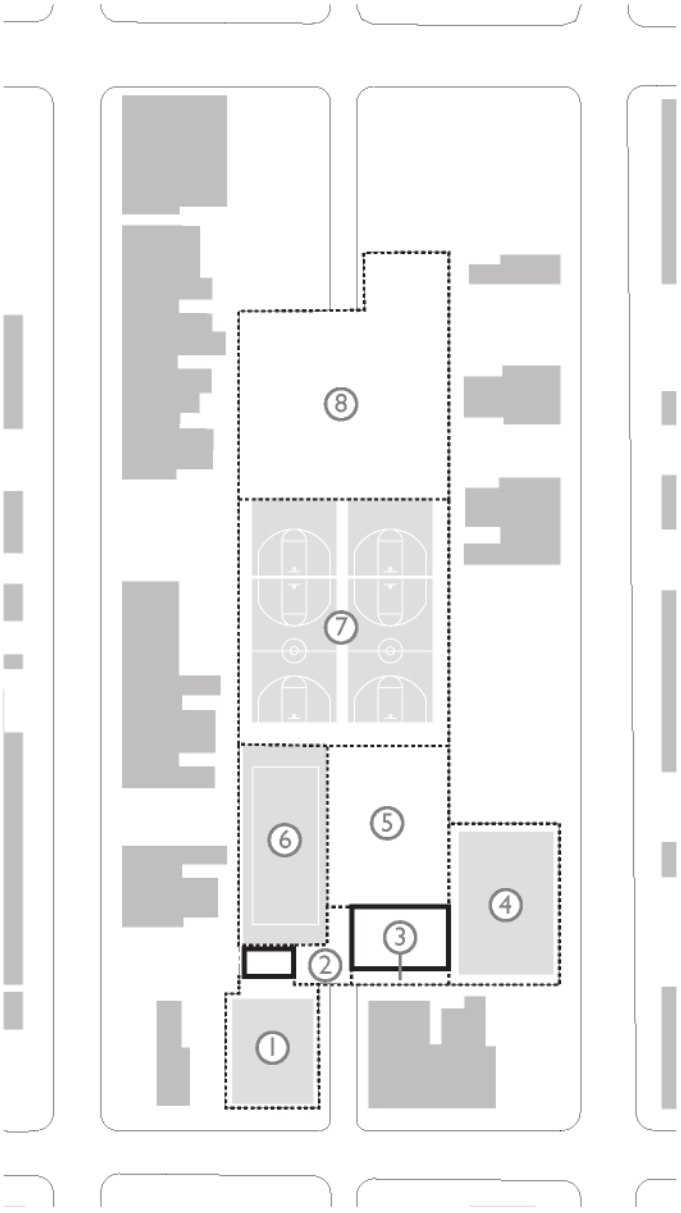
# THE ASSESSMENT

# METHODOLOGY




1. 5-12 PLAY AREA
2. ENTRANCE
3. ALLEY
4. 0-5 PLAY AREA
5. ASPHALT AREA
6. POOL
7. BASKETBALL COURTS
8. ASPHALT AREA

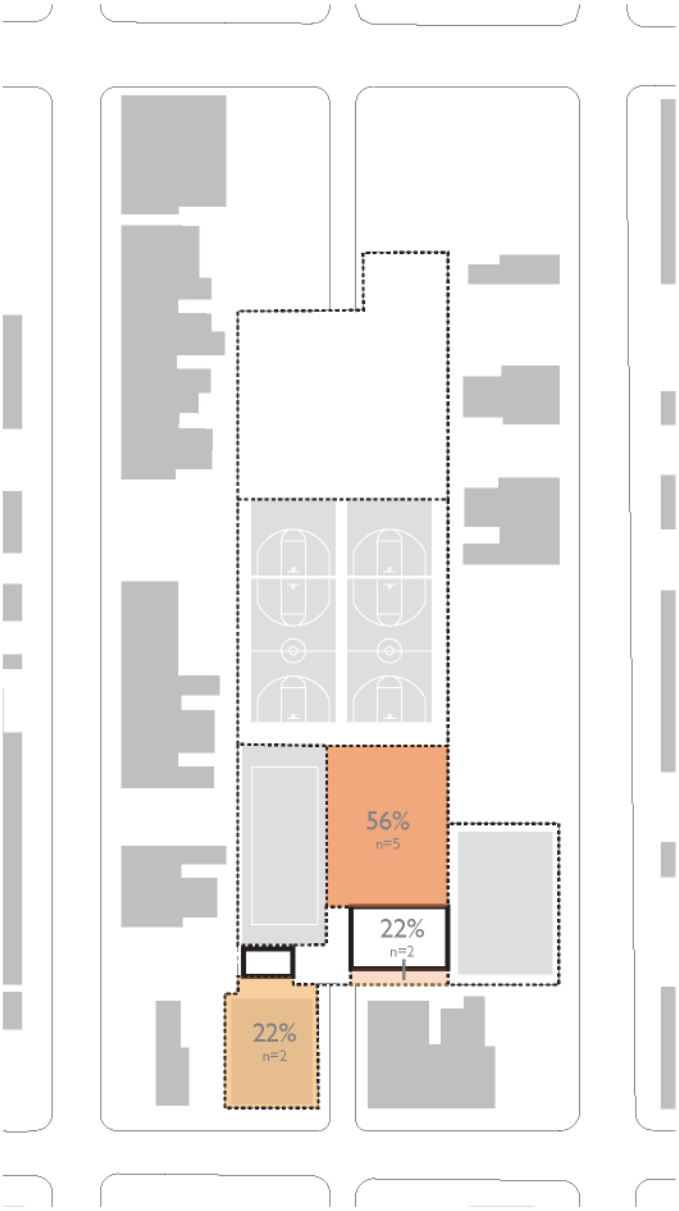
Our assessment was completed June-July 2017. Observations were conducted using the observation protocol known as SOPARC, the System for Observing Play and Recreation in Communities. SOPARC categorizes users by type of physical activity (sedentary, moderate and vigorous), age (child, teen, adult, senior), apparent ethnicity (white, black, latino, asian, other), and apparent gender (male, female). This protocol utilizes direct observation only, so visual observation of gender and ethnicity is used rather than response via interviews.

Observations were made for four total days, 3 times per day at randomized times; one weekday and one weekend day when the pool was closed for the season and one weekday and one weekend day when the pool was open for the season. The pool opening significantly changed the dynamic of use within the park. Additionally, community built tables were added in the asphalt area (5) outside of the pool after the pool was open for the season. The tables also influenced park usage.

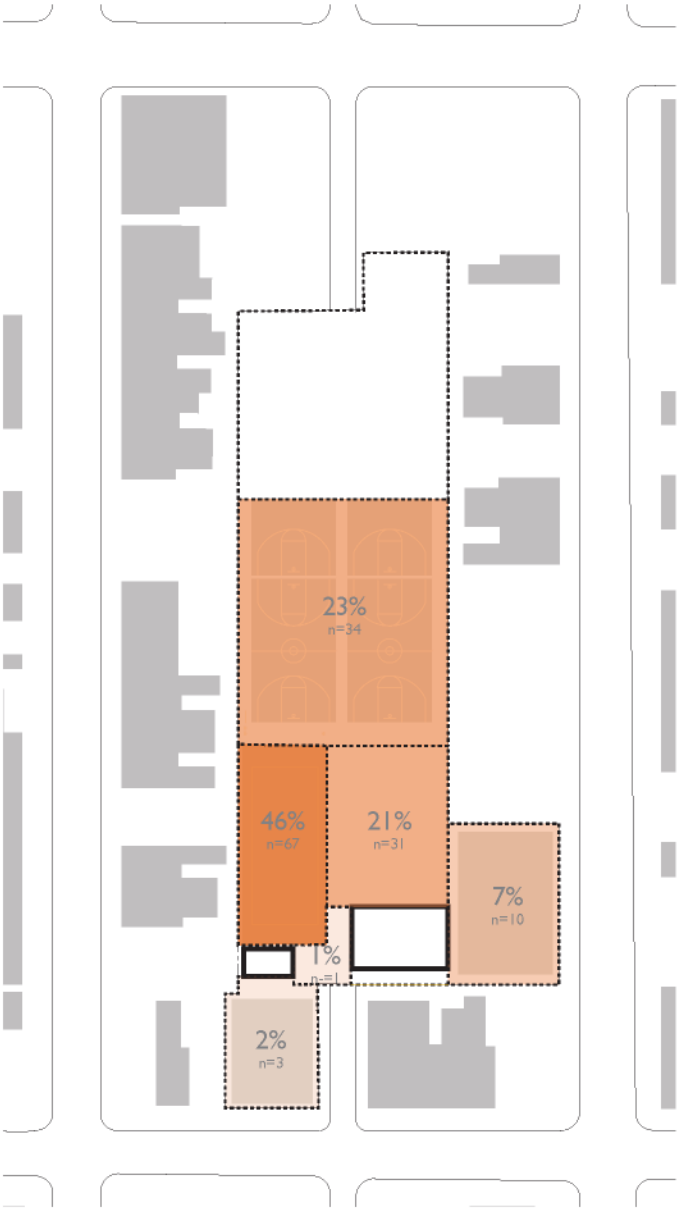
To observe the park, the space was divided into specific use areas. These areas included: 1. School Age (5-12) Play Area; 2. Entrance; 3. Alley (behind building); 4. Tot (0-5) Play Area; 5. Asphalt Area (outside pool); 6. Pool; 7. Basketball Courts; and 8. Asphalt Area (beyond courts). The building was not included as it was always locked. After the pool was open, a Parks and Recreation Department trailer was added to the asphalt area (5), but it was not publicly accessible, so was also not assessed.

Beyond direct observations, environmental data was also collected at the beginning of each SOPARC observation period. These included species counts, decibel levels and temperature readings in each use area. Decibel levels were taken using the National Institute for Occupational Safety and Health (NIOSH) Sound Level Meter Application for IPhone, along with an external calibrated microphone. Temperature readings were taken with an infared dual laser thermometer with adjustable emissivity on both surfaces and structures within the park.

# POOL CLOSED

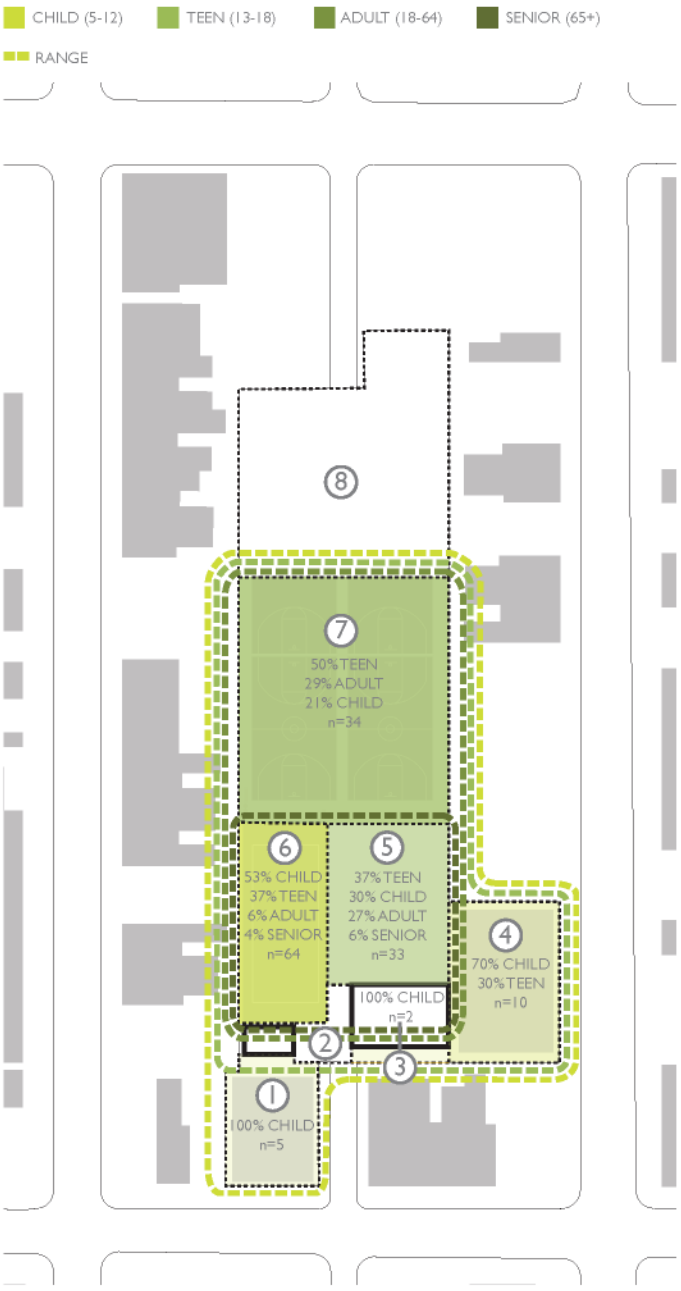



# POOL OPEN

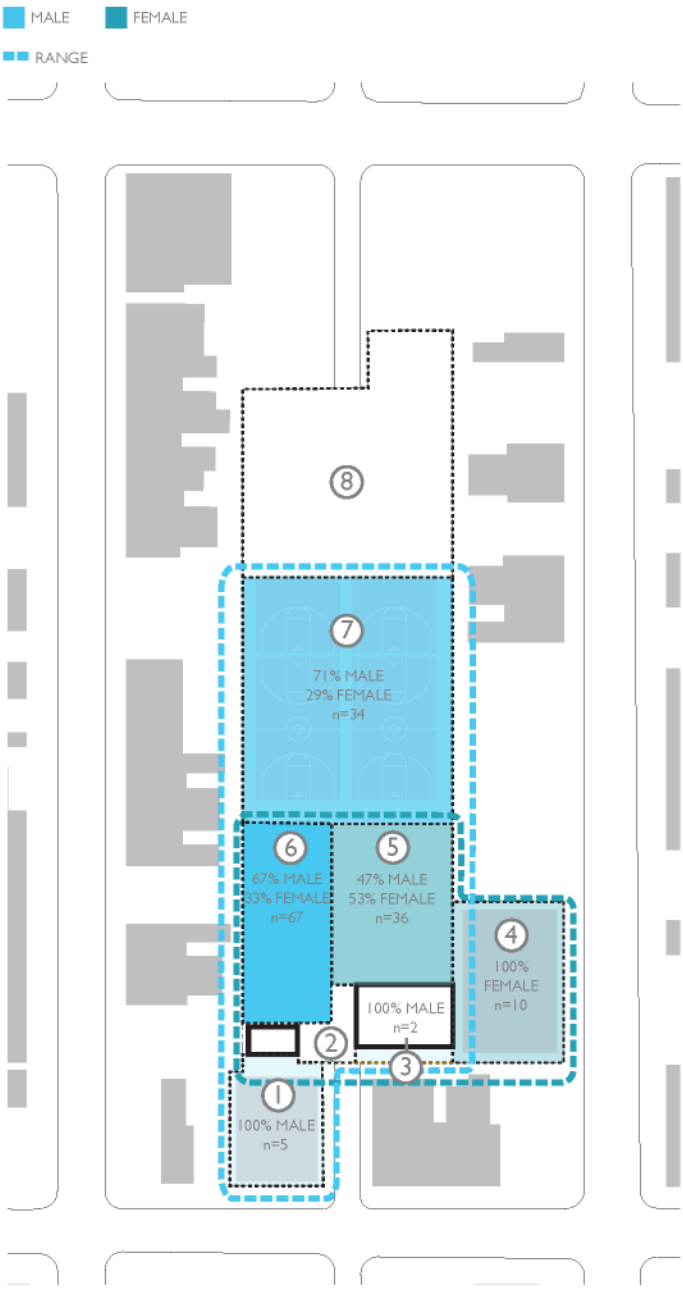



The opening of the pool for the season, and the addition of tables in the asphalt area outside the pool, significantly increased usage throughout the park

# AGE

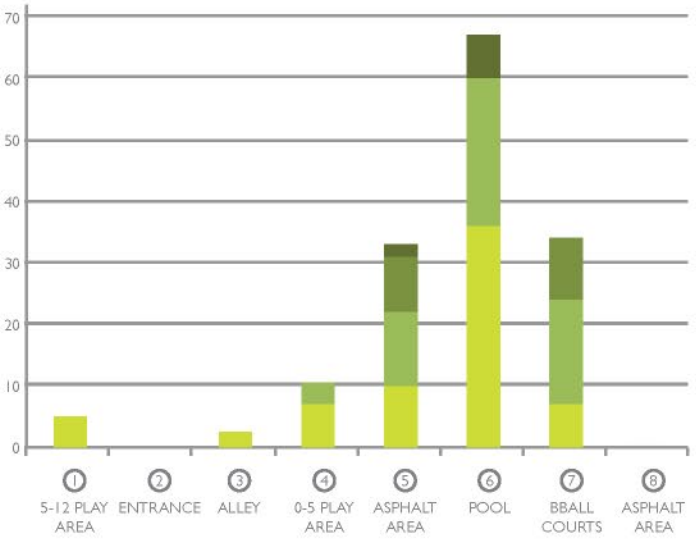



# GENDER




1. 5-12 PLAY AREA
2. ENTRANCE
3. ALLEY
4. 0-5 PLAY AREA
5. ASPHALT AREA
6. POOL
7. BASKETBALL COURTS
8. ASPHALT AREA

While children and teens utilized all of the park space, adults and seniors stayed near the core, using the pool and adjacent asphalt area with picnic tables exclusively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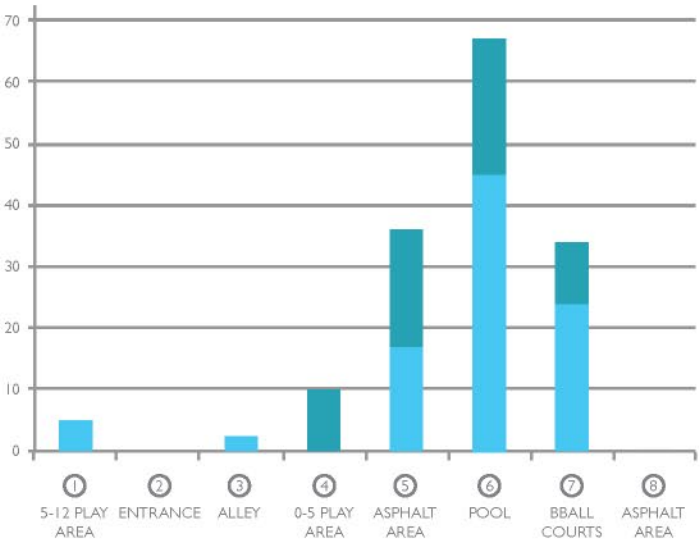
1 5-12 PLAY AREA
2 ENTRANCE
3 ALLEY
4 0-5 PLAY AREA
5 ASPHALT AREA
6 POOL
7 BBALL COURTS
8 ASPHALT AREA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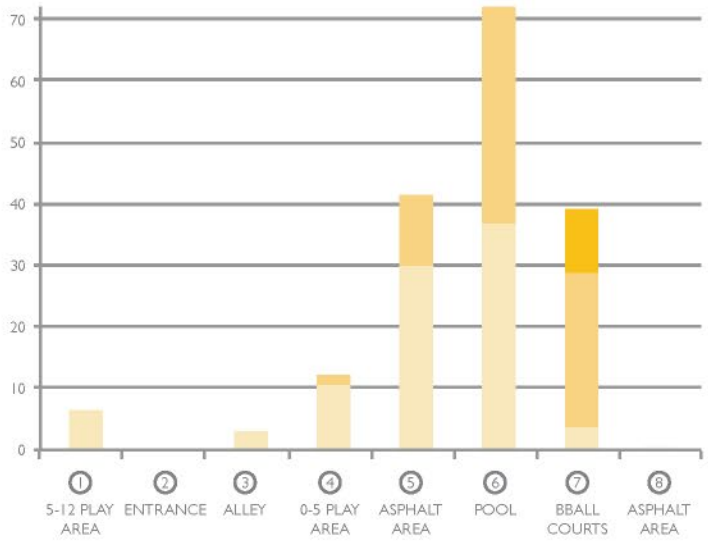
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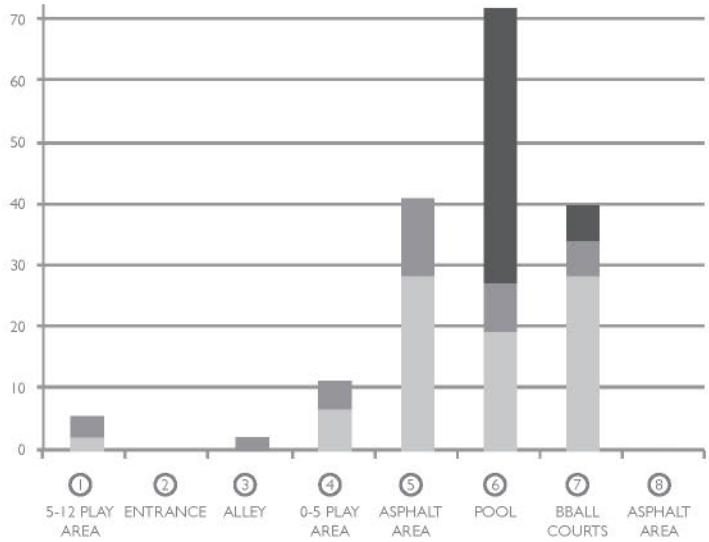
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1 5-12 PLAY AREA
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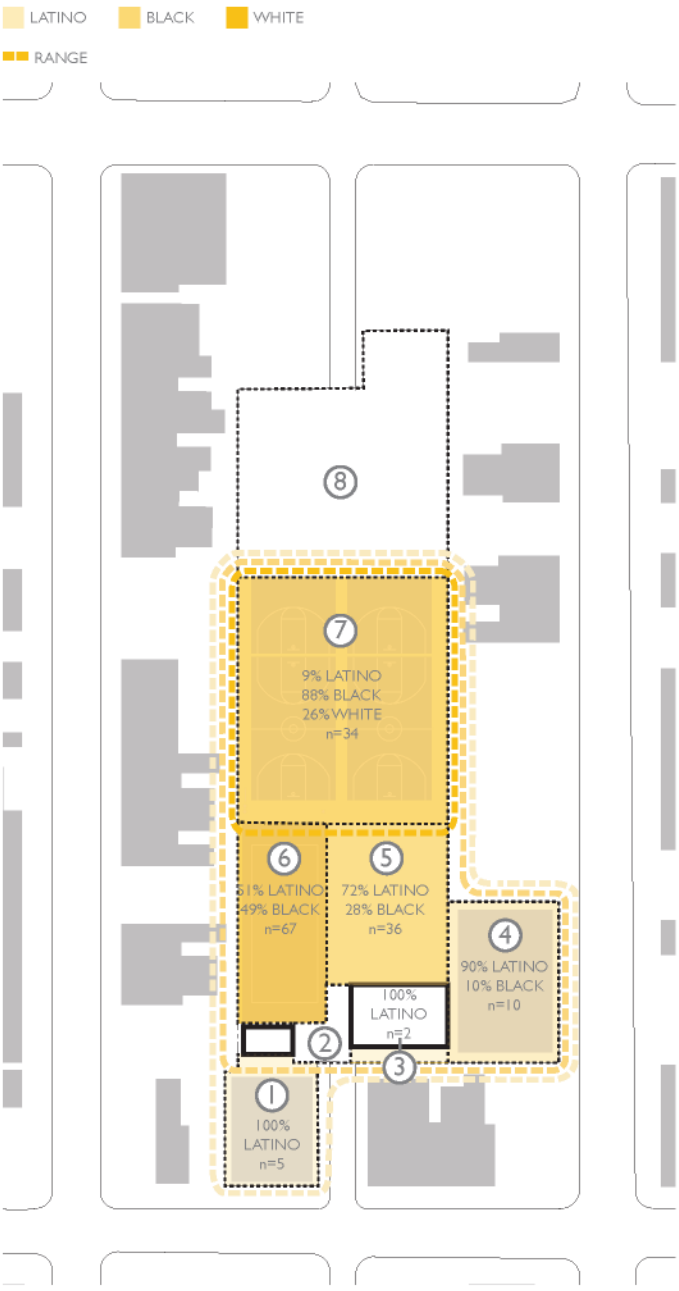
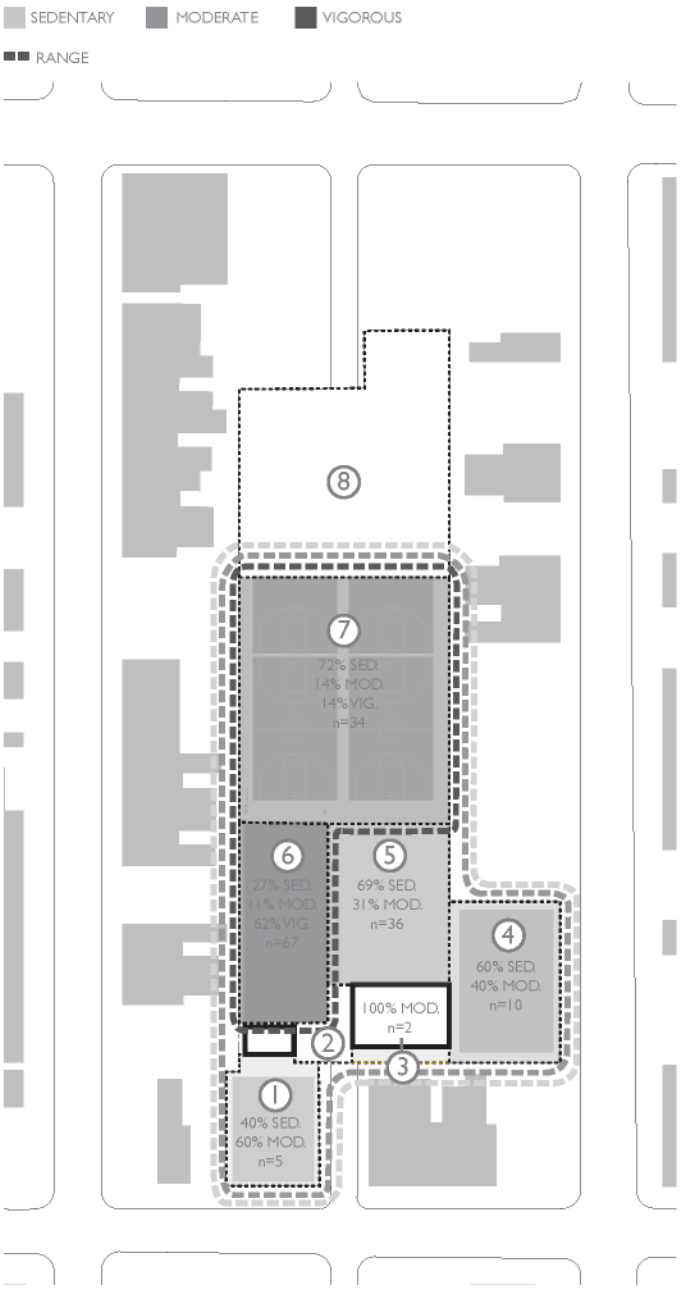
# ETHNICITY




# ACTIVITY

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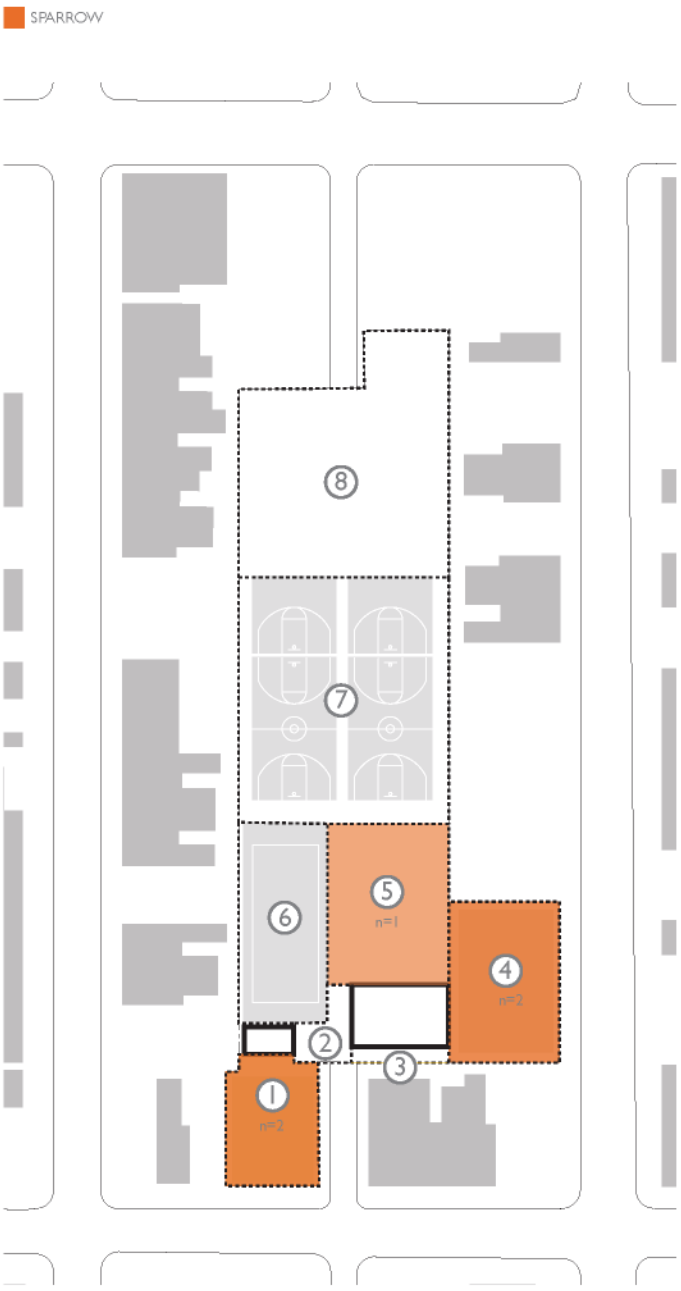
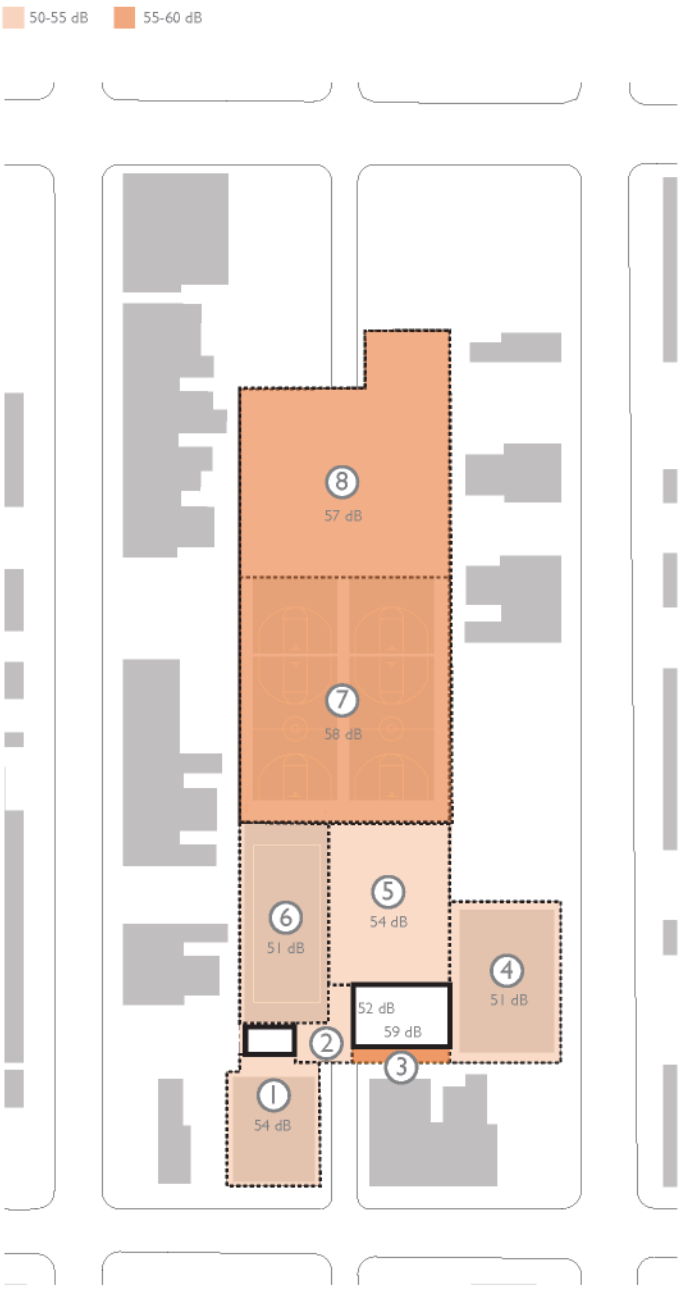
The pool and basketball courts promoted the most moderate to vigorous physical activity. The play areas and tables in the asphalt area had more sedentary activity, but were social gathering spaces

# SPECIES




# DECIBEL LEVELS

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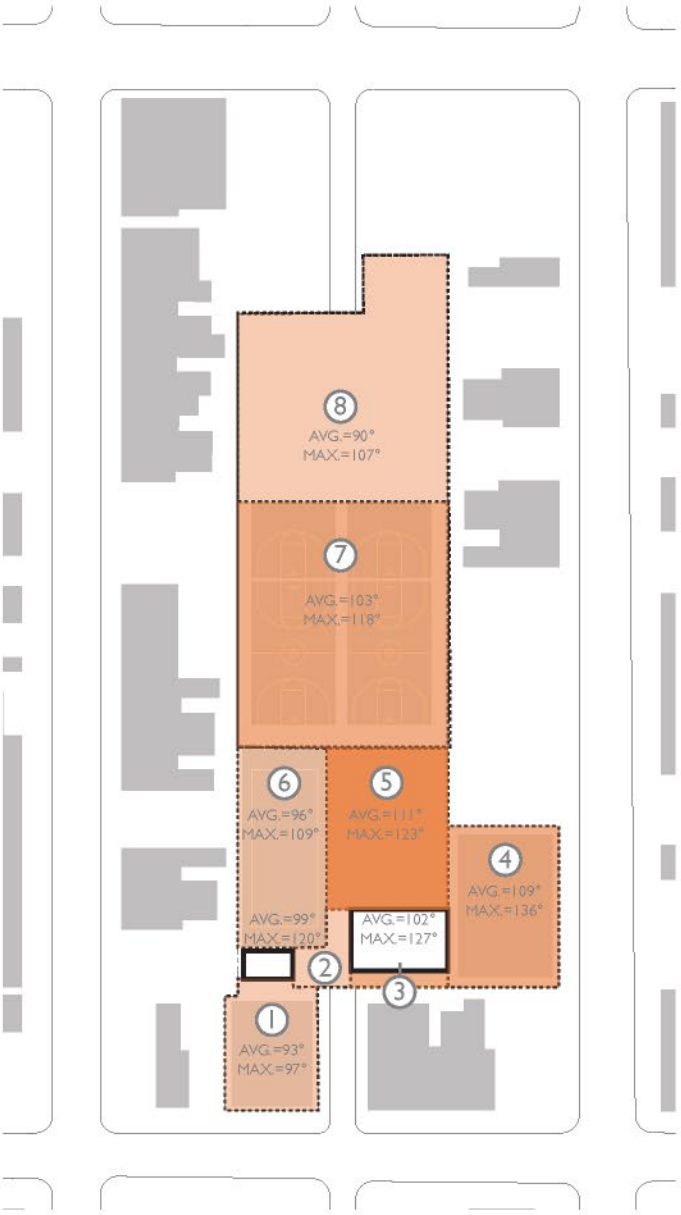
Perimeter trees provided onsite shade, reducing heat island effect and lowering surface temperatures; the trees were also utilized by birds and mitigated street noise

# TEMPERATURES

90-100° 100-110° 110°+




# CONCLUSION

A total of 155 people were observed at Waterloo Playground over a 4 day period, on the following schedule:

| Pool Closed: | # of users: |
|---|---|
| Friday (6/16/17) | |
| 8:00 am | Park closed |
| 11:00am | None |
| 2:00pm | 2 |
| | |
| Sunday (6/18/17) | |
| 11:00am | None |
| 2:00pm | None |
| 5:00pm | 7 |
| | |
| Pool Open: | |
| Saturday (7/15/17) | |
| 12:00pm | Park closed |
| 3:00pm | 57 |
| 6:00pm | 39 |
| | |
| Monday (7/17/17) | |
| 9:00am | Park closed |
| 12:00pm | 6 |
| 3:00pm | 44 |

Of those observed:

60% male and 40% female
44% children, 37% teens, 16% adults, and 3% seniors
51% latino, 43% black, and 6% white
49% sedentary, 22% moderate, and 29% vigorous

By comparison, from the 2010 Census Demographic Profile of the neighborhood (zipcode 19133):

47% male and 52% female
26% children, 9% teens, 57% adults, and 8% seniors
59% latino, 36% black, and 2% white

The park drew a significant amount of children and teens when compared to census demographics for the neighborhood. Both groups were very active within the space and utilized a majority of the park. Teens had a tendency to socialize at the perimeter, primarily on the play structures where there was shade.

Very few adults or seniors used the park and remained in the interior, utilizing the pool and picnic tables. Every adult at the tables was part of a family/caregiver group of the children in the pool. The table at the basketball courts was also a popular hangout spot for teens.

For environmental metrics, data was collected at the same time periods as the observations. The weather varied between 72°-88°, 60-80% humidity, sunny to partly cloudy to cloudy (data from the National Oceanic and Atmospheric Administration Weather Service).

Elements assessed for temperature per use area:

| Surface: | Structure: |
|---|---|
| 1. Shaded Poured in Place | Play Structure |
| 2. Asphalt | Painted Wall |
| 3. Asphalt | Building |
| 4. Sunny Poured in Place | Play Structure |
| 5. Artificial Turf | Building |
| 6. Concrete | Painted Wall |
| 7. Asphalt | Basketball Pole |
| 8. Asphalt | Painted Wall |

The highest temperatures recorded were the sunny poured in place rubber at 136° and artificial turf surface at 123° on an 87° day.

Decibel ranges for the park were within recommended ranges. There were very few sightings of animals or other species. 4 sparrows were viewed, always within close proximity to perimeter trees.