

# Chapel Hill Parks & Recreation Splash Pad and Inclusive Playground Study Progress Report

Presentation to Chapel Hill  
Town Council

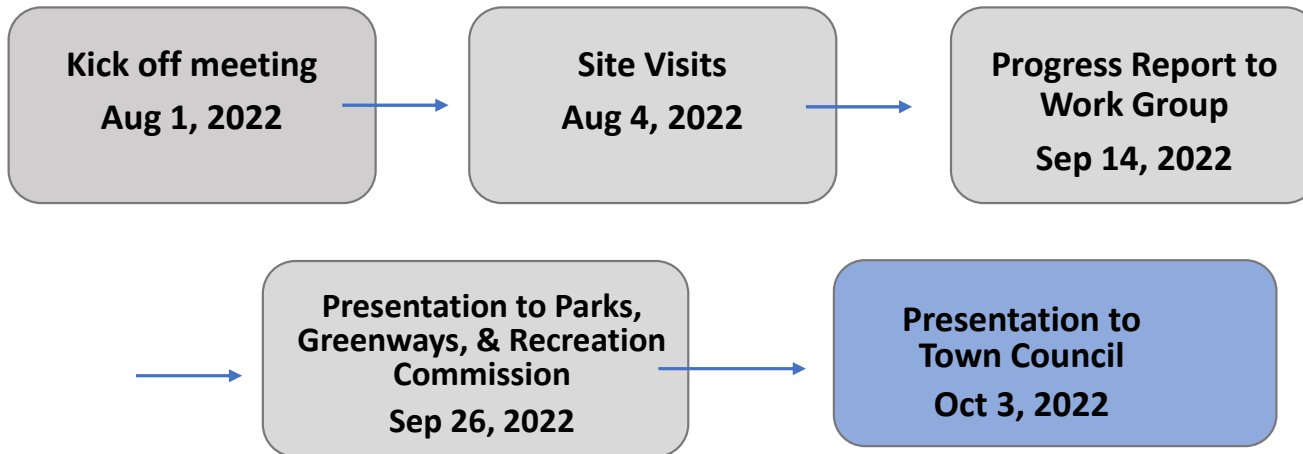
3 October 2022



**PARKS AND RECREATION**  
[www.chapelhillparks.org](http://www.chapelhillparks.org)



## Timeline



- Support to continue
- Consider limiting number of concept plans and costing
- Initiate Community Input
- Final Report and Presentations

Draft

Splash Pad and Inclusive Playground Study

## Project Justification

- Recreation Trends
- 2013 Comprehensive Parks Plan
- Growing Community Interest
  - Receipt of a petition signed by over 820 individuals supporting a splash pad in Chapel Hill
- Town's Goals Including:
  - Connected Community
  - Environmental Stewardship
  - Vibrant and Inclusive Community

Draft

Splash Pad and Inclusive Playground Study

## Project Criteria

Park location assessment using the following criteria:

- Adequate size
- Infrastructure
  - Availability of utilities
  - Availability of parking
  - Restrooms
  - Shelter
- Equity considerations such as:
  - Access and connectivity (e.g., public transit, pedestrian, bicycle)
  - Facilities that are at the end of their life span, or that have not seen significant improvements
  - Socioeconomic data
- Proximity to other parks and Town amenities (shopping, restaurants, etc.)
- Site impacts (utility relocation, environmental, cultural and natural resources, etc.)
- Evaluation of splash pad system types and pros and cons of recirculated water system versus a flow-through system
- Estimated design and construction, start-up, operations, and maintenance costs
- Community input options / processes
- Identification of most feasible build-out/phases of development

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## Site Visits

- 6 parks
  - Cedar Falls Park
  - Community Center Park
  - Hargraves Park
  - Homestead Park
  - Southern Community Park
  - Umstead Park
- 2 public housing communities
  - Eastwood
  - Oakwood
- Input from Town staff



*Community Center Park – pool deck*



*Eastwood Public Housing – Suitable space on Eastwood frontage for pocket park splash facility*

*Homestead Park –  
Open space beside pool building*



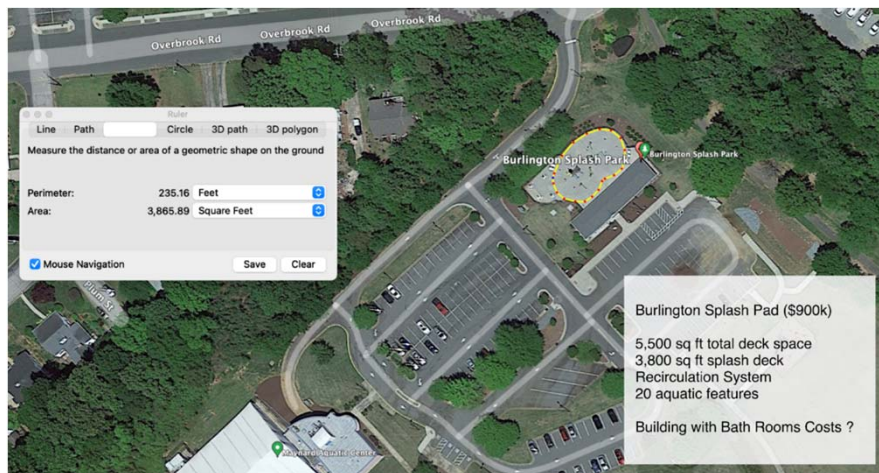
*Cedar Falls Park – Trail between playground and parking lot/restrooms*



**Splash Pad and Inclusive Playground Study**

# Research

- Investigation of existing splash pad facilities in other municipalities – Burlington, Mebane, Pittsboro, Davie County, Fayetteville
- Code research
- OWASA information on sewer and water availability
- Zoning/Entitlement restrictions in place – i.e., existing Special Use Permits on parcels
- Public transit access
- # households within a quarter mile/walking distance



Burlington splash pad facility

OWASA plans – Water and sanitary mains at Homestead Park  
Blue: water mains  
Green: sewer mains



About News Advancing Access Guidelines & Standards Services File an ABA Complaint Cor

## Guide to the ADA Accessibility Standards

Americans with Disabilities Act  
Code Research

A Summary of Accessibility Guidelines for Play Areas

# Splash Pad and Inclusive Playground Study

# Organizing Findings

## Sites in Consideration

- Collected and organized basic data
  - Location and Access (walk, bike, public transit)
  - Existing facilities
  - Existing utilities
  - Staff comments
  - Map suitable areas within each park or housing development
- Analyze suitability of each site for various facility improvements
  - Quick list pros and cons for each facility – large splash pad, pocket park splash pad, and inclusive playground

### FACILITY CONDITION ASSESSMENT CHECKLIST COMMUNITY CENTER PARK 120 South Estes Drive

BASIC SITE INFORMATION			
Park Size	12.06 acres		
Public Access	S Estes Drive, Plant Road, pedestrian access from Bolin Creek greenway trail and from battle creek nature trail		
Public Transit:	4 routes with nearby stops		
PARKING		COMMENTS	STAFF COMMENTS
# spaces	66	paved	-parking is often insufficient
ADA spaces	3	appear compliant	
Expansion	not easily accessible	new lot could be added from Plant Rd	
OTHER FACILITIES			
Playground		not inclusive or ADA compliant	
Trailhead			
Bathrooms		inside community building	insufficient facilities
		single stall restrooms (2)	
Shelter		gazebo in rose garden	
Change space		in pool wing	
Gym		inside community building	
Climbing wall		inside gym	
Pool		limited hours	insufficient staffing
Basketball, bocce ball		outdoor	
UTILITIES			
Existing water?	yes	Nearest Water	8", from Plant Rd
Is there adequate water supply	yes	Meter size	
Existing sanitary sewer?	yes	8" DI to Estes	
Existing storm mitigation facility		No	
Existing building for splash pad equipment		No	
FACILITY APPROPRIATENESS			
large splash pad facility			
pro:	space, utilities, access	con:	insufficient bathrooms & parking
	ex impervious deck available		
small splash pad facility			
pro:	space, utilities, access	con:	insufficient bathrooms & parking
inclusive playground			
pro:	public transit	con:	insufficient bathrooms & parking
staff on site:	Yes		

## Splash Pad and Inclusive Playground Study

## Summary Chart of Parcel Data

Property	Size (acres)	Public Transit	Households within 1/4 mile	Water Service	Sanitary Sewer Service	Playground	Restrooms	Staff On-Site/Pool	Public Parking (Number of Spaces)	Affordable Housing Community Within Walking Distance	Property Site in Qualifying Census Tract
Cedar Falls Park	66.6	Y	262	Y	N	Y	Y	N	180	UNK	N
Community Center Park	12	Y	486	Y	Y	Y	Y	Y	66	Y	N
Hargraves Park	6.8	Y	1285	Y	Y	Y	Y	Y	60	Y	Y
Homestead Park	43.6	Y	582	Y	Y	Y	Y	Y	288	Y	N
Southern Community Park	71	Y	340	Y	Y	Y	Y	N	157	N	N
Umstead Park	23.7	Y	1252	Y	Y	Y	Y	N	42	Y	Y
Eastwood Public Housing	5.5	N	299	Y	Y	Y	N	N	N	Y	N
Oakwood Public Housing	6	Y	785	Y	Y	Y	N	N	N	Y	N

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# Destination Splash Pads

## ELEMENTS TO BE INCLUDED IN A DESTINATION SPLASH PAD

- Splash features, in multiple zones to accommodate different ages and abilities
- >5,000 square feet (sf)
- Handicap accessibility
- Restrooms and changing space
- Small protected/built space for water circulation and treatment equipment
- Parking expansion as needed
- Stormwater mitigation facility (bioretention area or sand filter) for increased impervious on site



Sample layout of destination size splash park



Blue Heron Bay, Michigan



## Destination Splash Pads (continued)

- Which sites could accommodate this facility, looking at these criteria:
  - Water and sewer availability
  - Site Access
  - Parking
  - Restrooms
  - Staffing availability
- Costs associated with getting the splash pad installed
  - Design
  - Permitting
  - Building the facility
- What other improvements would be required to make this happen
  - Parking additions
  - ADA access
  - Restroom improvements
  - Change room facility
  - Stormwater mitigation facility for increased site impervious

*Community Center Park –  
deck beside pool building*



*Hargraves Park – area overlapping existing  
wading pool and playgrounds*

*Homestead Park -  
Open space beside  
pool building*



Splash Pad and Inclusive Playground Study

# Pocket Park Splash Pads

## ELEMENTS TO BE INCLUDED IN A POCKET PARK SPLASH PAD

- Splash features, 5-10 sprayer features
- < 2000 square feet (sf)
- < 100 gallons per minute (gpm) total design flow
- Handicap accessibility
- Restrooms
- Small protected/built space for water circulation and treatment equipment
- Stormwater mitigation facility (bioretention area or sand filter) for increased impervious on site



*Splash area –  
Durham Museum of  
Life and Science*



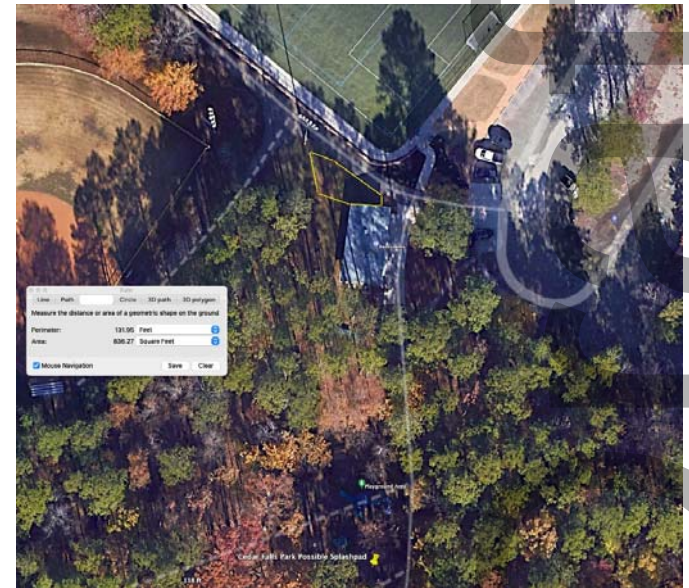
*Sample pocket park splash pad layout*

## Splash Pad and Inclusive Playground Study

## Pocket Park Splash Pads (continued)

- Which sites could accommodate this facility, looking at these criteria:
  - Water and sewer availability for a flow through system
  - Site access
  - Parking
  - Restrooms
  - Coexisting facilities which would benefit from a small splash area
- Costs associated with getting the splash pad installed
  - Design
  - Permitting
  - Building the facility
- What other improvements would be required to make this happen
  - Parking additions
  - ADA access
  - Restroom improvements
  - Stormwater mitigation for increased site impervious

### RECOMMENDED LOCATIONS:



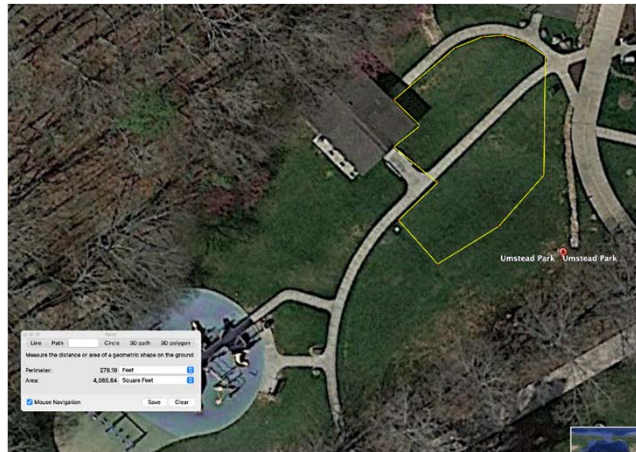
#### *Cedar Falls Park*

*Small splash facility / misters near fields that could be used by athletes and spectators as well as children*

Splash Pad and Inclusive Playground Study

## Pocket Park Splash Pads (continued)

*Umstead Park  
Near the existing accessible  
playground and close to the  
restrooms*



*Southern Community Park  
Within the existing fenced  
playground area*



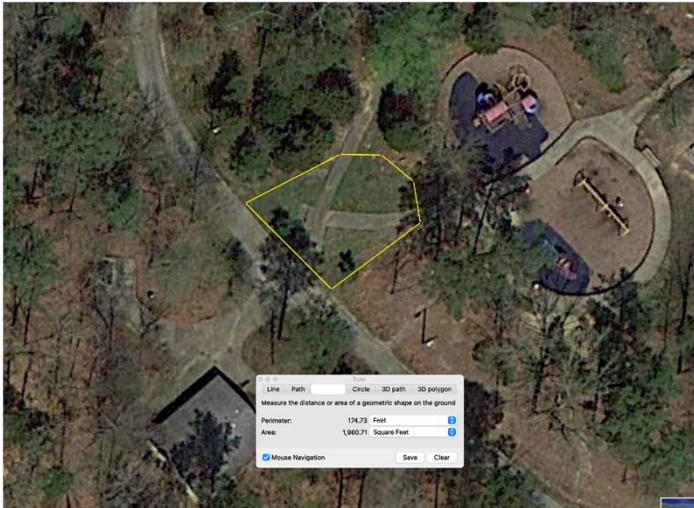
RECOMMENDED LOCATIONS:

*Community Center Park  
Adjacent to the existing  
playground area*



Splash Pad and Inclusive Playground Study

## Pocket Park Splash Pads (continued)



*Homestead Park*

*Between the existing playground area and the restroom/shelter building*

### RECOMMENDED LOCATIONS:

*Eastwood Public Housing*  
*Either along the Eastwood frontage where there is open space protected from the street, or replacing a basketball half court*



*Hargraves Park*

*Between the existing pool and playground facilities*

# Accessible Inclusive Playgrounds

**Accessible** – Meets ADA accessibility code for users with physical disabilities.

**Inclusive** – Allow children of all abilities to play with their peers regardless of physical or social or cognitive needs.

- Which sites could accommodate a playground facility
- Which sites could accommodate small improvements to make the playground more inclusive and more accessible
- Costs associated with getting the playground installed
  - Design
  - Permitting
  - Building the facility
- What other improvements would be required to make this happen
  - Parking additions
  - ADA access
  - Restroom improvements



*Existing accessible playground at Umstead Park*

## New Playground

- Community Center Park
- Hargraves Park
- Homestead Park



*Older playground at Community Center Park*

## Adapt Existing Playground

- Cedar Falls Park
- Southern Community Park
- Umstead Park

# Splash Pad and Inclusive Playground Study

## Combination Splash Pad / Playground

- Which sites could accommodate a playground facility looking at parking and restroom facilities, as well as available accessible open space outside of RCD zones

### Adapt Existing Playground / Add Splash Elements

These three parks have a good basic accessible playground. They could be turned into inclusive playgrounds with splash features with the addition of new elements and expansion of playground area.

- Cedar Falls Park
- Southern Community Park
- Umstead Park

*Park and splash pad  
Barnwell, SC*

### New Playground with Pocket Park Sized Splash Facility

In all cases the existing playground equipment is nearing the end of useful life, and replacement inclusive playground could include a splash element.

- Community Center Park
- Hargraves Park
- Homestead Park



## Splash Pad and Inclusive Playground Study



# Costs

*Sample layout,  
destination splash facility*

**DESTINATION SPLASH PAD** 2,500 sf – 5,500 sf+

\$ 700,000-1,200,000

plus site preparation (grading, vegetation removal,) and improvements such as parking, accessible walkways, improved restrooms

**POCKET PARK SPLASH PAD** under 2,000 sf

\$ 200,000-400,000

plus site preparation (grading, vegetation removal) and improvements such as accessible walkways and restroom improvements

**ACCESSIBLE INCLUSIVE PLAYGROUND**

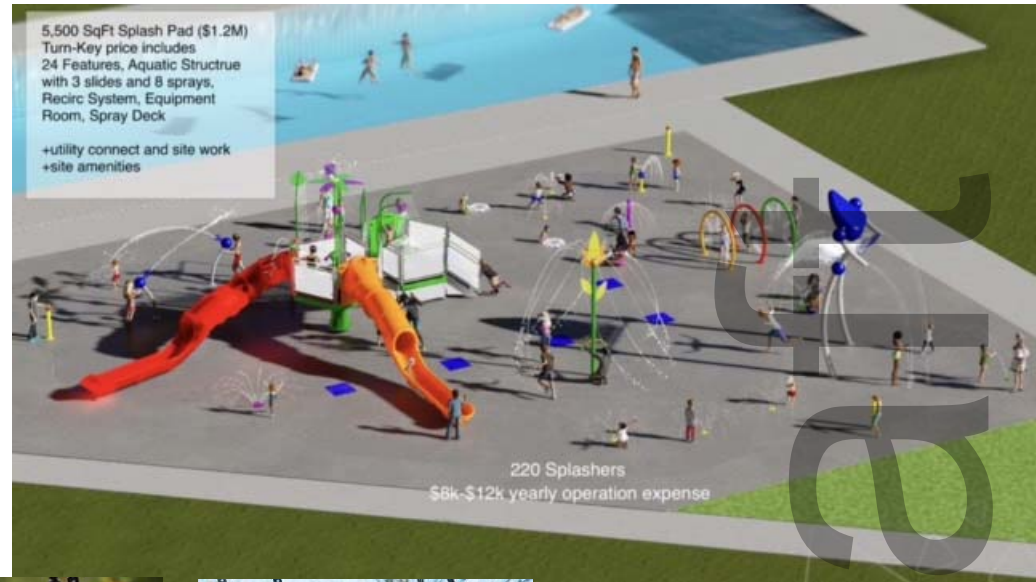
\$325,000-450,000

plus site preparation (grading, vegetation removal) and site improvements such as accessible walkways and restroom improvements

**ADAPT AN EXISTING PLAYGROUND TO BE MORE INCLUSIVE AND ACCESSIBLE**

\$ 50,000

Includes addition of adapted swings, separate play elements, rework of ramp access locations and additional play structure access



*Landscape Structures,  
adaptive swing option*

## Splash Pad and Inclusive Playground Study

## Costs



Annie Jones Park, Cary Accessible restroom building



Bioretention facility  
NC DENR manual

### **NEW ACCESSIBLE RESTROOM FACILITY**

\$ 400,000-500,000

assumes existing water and sewer services

### **NEW CHANGE ROOM FACILITY +/- 1400 sf**

\$ 400,000

### **ACCESSIBLE SIDEWALK CONNECTION**

\$ 15,000

### **EXTENSION OF SANITARY SEWER AT CEDAR FALLS**

\$ 310,000

Assumes pump station, force main, and sanitary main extension to existing service on Country Road

### **BIORETENTION AREA**

To treat stormwater from increased impervious and large areas of disturbance

\$ 100,000

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Splash Pad and Inclusive Playground Study

## Cost Bundle Examples

### EXAMPLE 1

DESTINATION SPLASH PAD WITH NEW RESTROOM / CHANGE FACILITIES AND ADDED PARKING AND ACCESS – RECIRCULATING SYSTEM

3,500 sf, fenced, 24+ spray features

Splash Pad:	\$ 1,000,000-1,200,000
Restroom/ Changeroom:	\$ 600,000
Parking – 20 spaces:	\$ 200,000
Accessible Walks:	\$ 15,000
Shade and Seating:	\$ 105,000
Bioretention:	<u>\$ 100,000</u>
TOTAL:	\$ 2,020,000-2,220,000

Operating costs: \$ 10,000-12,000 annually for maintenance, electric, water and sewer

### EXAMPLE 2

AVERAGE SIZE DESTINATION SPLASH PAD WITH NEW RESTROOM / CHANGE FACILITIES AND ADDED PARKING AND ACCESS – RECIRCULATION SYSTEM

2,000-4,000 sf facility, 16-24 splash features

Splash Pad:	\$ 650,000-750,000
Restroom/Changeroom:	\$ 600,000
Parking – 20 spaces:	\$ 200,000
Accessible Walks:	\$ 15,000
Shade and Seating:	\$ 105,000
Bioretention:	<u>\$ 100,000</u>
TOTAL:	\$ 1,670,000 – 1,770,000

Operating Costs: \$ 7,000-10,000 annually for maintenance, electric, water and sewer

Splash Pad and Inclusive Playground Study

## Cost Bundle Examples

### EXAMPLE 3

#### POCKET PARK SPLASH PAD WITH PEDESTRIAN ACCESS

5-10 spray features, 1,000-2,000 sf  
Flow-through system

Splash Pad:	\$ 170,000-250,000
Dedicated water and sewer taps:	\$ 165,000-185,000
Accessible Walks:	\$ 15,000
Bioretention:	<u>\$ 80,000</u>
TOTAL:	\$ 430,000-530,000

Annual operating expense: \$ 18,000-45,000 for maintenance, water and sewer costs

### EXAMPLE 4

#### NEW ACCESSIBLE INCLUSIVE PLAYGROUND WITH SMALL SPLASH AREA ELEMENTS

1-3 spray features, with playground

New playground and surfacing:	\$ 325,000 – 450,000
New Restroom:	\$ 400,000
Splash elements:	\$ 150,000
Dedicated water and sewer taps:	\$ 165,000-185,000 – might not be necessary
Accessible Walks:	\$ 15,000
Bioretention:	<u>\$ 100,000</u>
TOTAL:	\$ 1,155,000-1,300,000

Annual operating expense: \$ 8,000-10,000 for maintenance, water and sewer costs.

Splash Pad and Inclusive Playground Study

## Next Steps

### **COSTS**

Playground costs specific to each site

### **RESEARCH**

Further costing or accessory improvements to the splash pads, specific to each site considered

### **COMMUNITY ENGAGEMENT AND PUBLIC INPUT AFTER COUNCIL MEETING**

Promotion of opportunities:

- Door hangers
- Schools, including counselors and PTA
- Chapel Hill Mothers Club Facebook Group
- Special Olympics Events
- E-News and Text Blasts
- Project webpage
- Signs at Parks and Public Housing Communities

Public meetings scheduled at various locations which could include Hargraves Community Center, Chapel Hill Public Library, Kidzu, etc.

Online survey

### **CONCEPT PLANS**

- Small concept for each park with a more complete cost estimate based on existing conditions
  - 1 destination splash pad
  - 1 new playground
  - 1 or more pocket park splash pads
  - 1 or more adaptive playgrounds

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Splash Pad and Inclusive Playground Study

## What are we seeking from Council?

### **FEEDBACK:**

Given the information shared, which sites do you feel warrant further analysis?

What are your thoughts on the different types of splash pads and inclusive playground options?

Are there areas of the draft report warranting more research and/or clarity?

### **SUPPORT:**

Recommend to continue with completion of study, to include community engagement

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Splash Pad and Inclusive Playground Study