



**City of North Liberty
Centennial Park – Events Complex
Master Plan Update and Design Concept**

August 5, 2022

(Revised August 17, 2022)



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EXECUTIVE SUMMARY

The City of North Liberty is looking to the future with the goal of further developing Centennial Park to serve as a key amenity to North Liberty residents as well as the region.

Since Centennial Park was initially conceived in 2012, it has been thoughtfully developed with the goals of creating a space for play, gathering and respite with an underlying theme of water quality and nature. This study effort is the initial step in the final implementation phase which involves updating the original master plan to refine and expand early design concepts, introduce exciting new program features, and complete the park development as an attraction for the region.

The design team worked with North Liberty city staff to develop a plan for an inclusive and robust program and to ensure the final phase would be a friendly, functional, and fun area attraction. Design and aesthetics were carefully developed through an iterative process to create and maintain the original themes. The final phase is conceived to include:

- Centennial Center - Indoor event facility and outdoor stage
- Open air pavilion with flexible programming
- Premier 5,000 square foot splash pad for kids of all ages
- Restrooms and shelter
- Expansive plaza spaces and pathways to accommodate expanded programming and connection of amenities
- Honor garden overlooking the pond with open air shelter
- Expanded permeable paver parking areas to accommodate expanded programming

The preliminary estimated project cost for the overall project is \$17,700,000.

ACKNOWLEDGEMENTS

The process to develop the concept was guided by a series of meetings held with departmental leadership. The strategic solutions offered are based on best-practice design. With thoughtful input from City leadership, solutions were studied and developed culminating in the concepts being offered in this report. This City will utilize this information to seek funding and inform project planning.

We would like to specifically acknowledge the contribution of the following individuals:

City of North Liberty representatives:

Ryan Heiar, City Administrator
Tracey Mulcahey, Assistant City Administrator
Ryan Rusnak, Planning Director
Guy Goldsmith, Parks, Buildings & Grounds Director
Shelly Simpson, Recreation Center Director
Nick Bergus, Communications Director
Jillian Miller, Community Engagement Coordinator

With sincere appreciation for the opportunity to collaborate with you on this long-term masterplan, representatives on behalf of Shive-Hattery, Inc.:

Emma Riordan
Natalie Oppedal, AIA, NCARB
Emily Naylor, PLA

Jennifer Hoffman, PE, LEEP AP
Kevin Trom, PE
Clint Matthews, EI
Mitch Frazier, PE
Steve Shank, Waters Edge Aquatic Design

MASTER PLAN

The Centennial Park Master Plan was created in 2012. The process to create this master plan included engagement with the public and input from residents. City staff and the design team created a space for play, gathering and respite with an underlying theme of water quality and nature. The plan called for age-appropriate play features, demonstration of stormwater best management practices, a great lawn open area, and both pedestrian and vehicular circulation. Demonstration stormwater management practices include a retention pond, a bioswale following the original drainage patterns of the parkland, a permeable paver parking lot and satellite permeable paver parking stalls throughout the park.



Original 2012 Master Plan

Since this master plan was created, North Liberty has completed four phases of implementation. Phase one included the retention pond and west entrance driveway and parking area. Phase two included the bioswale, permeable paver parking lot, loop trail, and east entrance driveway. Phase three included the age-appropriate play features. Phase four, completed in 2022, included completion of the loop road, satellite permeable paver parking bays, and sidewalk connections to the surrounding neighborhoods.

This study effort is the initial step in the final implementation phase which involves updating the original master plan to refine and expand early design concepts, introduce exciting new program features, and complete the park development as an attraction for the region.

Residents continue to enjoy Centennial Park through the first four phases of implementation. The annual Blues & BBQ festival is hosted in the park, drawing visitors from throughout the region. This next phase will provide for expanded programming and attractions to be enjoyed by all.

Project Goals

The design team worked with North Liberty city staff to develop a plan for an inclusive and robust program and to ensure the final phase would be a friendly, functional, and fun area attraction. Design and aesthetics were carefully developed through an iterative process to create and maintain the original theme for water quality and connection to nature. Initial brainstorming consisted of City staff researching facilities that provided the amenities and character they envisioned for the Centennial Park facility. Below are images of Evans Center Towne Park and Johnston City Hall which emerged as two key inspirations.





The following goals guided the development of the master plan update and design concept development:

- Reinforce natural themes throughout the park
- Develop into a regional attraction and the heart of North Liberty
- Envision elevated architecture and amenities that align with a regional destination
- Support and enhance existing programming including outdoor stage area, specifically Blues & BBQ
- Provide both interior and exterior events space with the ability to program year-round

DESIGN CONCEPT

Site Concept

The site concept was developed with a focus on placement of the event hub, the Centennial Center, as well as the splash pad facility and open air pavilion with the goal of focusing programming to the north end of the park and maintaining the south area of the park as open and unprogrammed. The site concept plan includes the following elements:

- Approximately 10,000 square foot event building; Centennial Center
- 50'x100' open air pavilion
- 5,000 SF splashpad area with shade structures and restroom/mechanical/shelter facility
- Parking lot expansion of 28 spaces in the north lots and 61 spaces in the east lots envisioned as an extension of the existing permeable paving system.
- Honor Garden and shelter
- Expansive plaza spaces and sidewalk including a 40' thoroughfare, highlighted by striped paving patterns and small seating areas along the west side of the building to accommodate event programming and emergency vehicle access.
- There are no specific city sustainable design requirements, but options can be explored early in design.

Utilities and Infrastructure:

Storm sewer, sanitary sewer, water, and electrical services required improvements to support the site development. The existing bioswales would receive the majority of stormwater to be conveyed to the park's pond. Curb intakes along expanded parking, area intakes near the events building, and the events building roof will have stormwater piped to new headwalls in the existing bioswales. The open pavilion and splash pad shelter will have stormwater discharged at grade. Sanitary sewer service to the events building and splash pad shelter will come from the 8" stub at the northeast corner of the park. A 6" sanitary service is assumed to provide adequate capacity to the site. Water service will connect to an existing 8" main on the east side of the park. A 6" water service will connect to the splash pad shelter and events building, as well as a fire hydrant west and north of the events building. A smaller water service line will serve the open pavilion.

Existing power to the park is provided by Linn Country REC and consists of a 400A 120/240V single phase service fed from a pad mounted transformer near the NE entrance. To accommodate the planned facilities and site improvements, a new 3 phase service will be installed and this service will require a new transformer, metering and new service entrance panels. This new electrical power service will require a new conduit and primary cables from Alexander Way (Linn County REC), west of the park. The existing service could be re-fed from this new service to allow a single meter and disconnect to serve the park. Site lighting conduit and pole lights will be added between the trail and loop drive around the park. At-grade power receptacles will also be installed throughout the site to accommodate site programming including food trucks, vendors, Blues & BBQ programming, etc.

Centennial Center

The event building, also known as the Centennial Center, will be the heart of the park. The facility is designed around accommodation of a 300-person event. Its central location will ensure it can be part of any event hosted at the park. The main entrance faces northeast while the stage faces south towards the open lawn, which is the optimal orientation for afternoon and evening programming. An adjacent plaza provides outdoor entertaining space and small shaded areas for respite. Landscaping around the events

building will anchor the structure within the site and highlight the main architectural features. Exterior material choices nod to the underlying natural and sustainable themes throughout the park.

Under the 2018 International Building Code (IBC), Centennial Center would be classified as an Assembly occupancy:

- Assembly Groups A-2 (indoor event space) and A-5 (Amphitheater and pavilions) Occupancy.

This facility and associated site improvements will be designed to comply with IBC and 2010 ADA Standards for Accessible Design.

Preliminary Space Program:

Description	Area
Entrance	
Entrance Vestibule	1,050 SF
Egress/Corridors	590 SF
Event Space	
Hall	4,800 SF
Exterior Stage	2,700 SF
Support Spaces	
Office	150 SF
Interior Restrooms	450 SF
Exterior Restrooms	450 SF
Communications/IT	70 SF
Custodial	80 SF
Green Rooms with Restrooms	650 SF
Cater Kitchen	600 SF
Bar	90 SF
Mechanical	670 SF
Electrical	150 SF
Storage	500 SF
Interior Total	10,300 SF
Event space	
Exterior Stage	2,700 SF
Total	13,000 SF

Basis of Design:

Exteriors:

Centennial Center basis of design includes exterior walls with metal stud framing with limestone veneer around the front entry curve and burnished masonry veneer around the rest of the building. The clerestory will be primarily double thermally broken aluminum curtain wall glazing. The exterior wall between the wall and the stage space will be double thermally broken aluminum curtainwall with tinted glazing. Structural system will be determined during the design phases of the Centennial Center, with the preliminary system composed of steel beams, columns, and custom trusses. Interior and exterior columns will be clad in wood. The roof will be arched with gutters along the low sides. Roof insulation will all be above the metal roof deck. Underside of roof deck would be clad in wood.

Interiors:

Interior walls would be gypsum board and metal studs that are painted with a satin finish. Restrooms would have ceramic wall and floor tile. Additional building finishes would be determined during the design phases for the Centennial Center.

Doors and Hardware:

The primary and secondary entrance doors would be aluminum stile and rail door with insulated glass panels in custom heights. Exterior service access doors would be aluminum/FRP composite doors.

Interior doors will be wood doors, some with glass and some solid core doors, doors to mechanical spaces would be painted hollow metal doors. Interior door frames would be hollow metal.

Mechanical/Electrical/Plumbing Systems:

Centennial Center will be fully sprinklered. HVAC and plumbing systems would be determined during the Design phases for the Centennial Center.

Electrical distribution system and new electrical service to the site would be determined during the Design phases for the Events Complex. Lighting systems, fire alarm system, telecom and access control systems would be determined during the design phases for the Centennial Center and will be code compliant.

Open Air Pavilion

The open air pavilion sits between the west parking lot and the Centennial Center. The versatile space can house a wide array of events from a beer garden to a winter ice skating rink. The pavilion will have similar structural systems and finishes as the Centennial Center, wood-clad steel columns, custom steel trusses with arched roofs to continue the cohesive design language throughout the park. The structure has a clear space of 18 feet under the roof structure to accommodate basketball or similar sporting events. This plaza is also dotted with three shade sails and a continuation of paving patterns.

Splash Pad Facility and Shelter

Programmed play space for children is focused at the northeast portion of the site. The 5,000 SF splashpad will be located south of the existing playgrounds. The splashpad has an overall organic shape with rings of colored concrete to create a dynamic ground plane pattern and define zones of play. A variety of water features ranging from low bubblers to tall overhead showers ensure there is something for children of all ages. A shade sail and three shade structures provide shade for benches and parts of the splashpad as well.

Splashpad Play Features included: Water Odyssey Orbit, Lumiflow LED lights with water sprayers, Vortex Bamboo Trees 1 and 2, Vortex Water Tunnel 2, Water Odyssey Zen Shower, Vortex Luna No. 1, Vortex Water Journey Tide Pool, Aquatix Aquahedra, and Waterplay Helices.

A restroom building and picnic shelter create separation between the playground and splashpad. The building will house two unisex restrooms and mechanical space for the splashpad, all of which will be winterized during the cold seasons. Picnic tables under the shelter will provide the perfect location to for gatherings. An open grass area with trees and shade sails gives families more space to spread out. Additionally, space west of the playground is planned for future ADA playground expansion. Finally, a 20' wide path connects the expanded east parking lot to the Centennial Center.

Honor Garden

The Honor Garden is intended to be a space for the community to honor North Liberty veterans and fallen military. A covered open air shelter is proposed at the center point of the existing arcing detention pond at the northwest corner of the park. Shelters will have similar structural systems and finishes as the Centennial Center, wood-clad steel columns, and custom steel trusses with arched roofs to continue the cohesive design language. The shelter serves as a space that can be used by the community for weddings or other small private events, but it can also be open and provide shade to those visiting the garden to honor military loved ones. Arching around the pavilion are two sloped and curved limestone seating walls. Colorful gardens fill in the space inside the curved walls, and the park's primary flagpole sits in the center of the garden.

Please let us know if you have any questions concerning the information presented in this study.

Sincerely,

SHIVE-HATTERY, INC.



Jennifer Hoffman, P.E.

JLH/bad

APPENDIX A: SITE CONCEPT PLAN



APPENDIX B – OPINION OF PROBABLE COST

**CITY OF NORTH LIBERTY
CENTENNIAL PARK EVENTS COMPLEX
OPINION OF PROBABLE COST**

August 17, 2022

#	ITEM DESCRIPTION	QUANTITY	UNITS	UNIT COST	TOTAL COST
1	Construction Survey	1	LS	\$10,000	\$10,000
2	Earthwork	12,000	CY	\$20	\$240,000
3	Erosion Control	1	LS	\$20,000	\$20,000
4	North Parking Lot Expansion - Permeable Pavers	8,000	SF	\$20	\$160,000
5	East Parking Expansion - Permeable Pavers	11,000	SF	\$20	\$220,000
6	PCC Path for Emergency Access - 7"	4,420	SY	\$70	\$309,400
7	PCC Sidewalk - 5"	4,200	SY	\$50	\$210,000
8	Colored Concrete - 7" PCC	870	SY	\$80	\$69,600
9	Colored Concrete - 5" PCC	780	SY	\$60	\$46,800
10	PCC Seat Walls	80	CY	\$600	\$48,000
11	Centennial Center	11,000	SF	\$425	\$4,675,000
	Kitchen Equipment & A/V Equipment Allowance	1	LS	\$450,000	\$450,000
12	Centennial Center - Stage Area	2,800	SF	\$300	\$840,000
	A/V Equipment/Power Allowance	1	LS	\$150,000	\$150,000
13	Security Bollards	8	EA	\$2,000	\$16,000
14	Open Air Pavilion	1	LS	\$1,500,000	\$1,500,000
15	Restroom/Mechanical Building with Picnic Shelter	1	LS	\$550,000	\$550,000
16	Shade Sails	4	EA	\$15,000	\$60,000
17	Splashpad Shade Structures	3	EA	\$20,000	\$60,000
18	Splashpad	1	LS	\$550,000	\$550,000
19	Honor Garden Structure	1	LS	\$250,000	\$250,000
20	Honor Garden Walls	1	LS	\$54,000	\$54,000
21	Light Poles with conduit/conductors	20	EA	\$4,000	\$80,000
22	Utility Upgrades - Sanitary	1	LS	\$60,000	\$60,000
23	Utility Upgrades - Electric	1	LS	\$110,000	\$110,000
24	Utility Upgrades - Outdoor Wifi	1	LS	\$40,000	\$40,000
25	Utility Upgrades - Water	1	LS	\$70,000	\$70,000
26	Utility Upgrades - Storm	1	LS	\$70,000	\$70,000
27	Site Restoration & Turf Seeding	5	AC	\$3,500	\$17,500
28	Shrub and Perennial Planting Beds	1	LS	\$70,000	\$70,000
29	Trees	50	EA	\$400	\$20,000
30	Concept Phase Design Contingency (20%)	1	LS	\$2,205,260	\$2,205,000
31	Escalation to Issue Bid Sept 2023 (8.5%)	1	LS	\$1,124,661	\$1,125,000
32	Mobilization & General Conditions (7%)	1	LS	\$1,004,941	\$1,005,000
CONSTRUCTION SUBTOTAL					\$15,362,000
Professional Services - Design, bidding, construction, staking, testing (15%)					\$2,305,000
Playground ADA Expansion by Owner					\$200,000
TOTAL PROJECT COST*					\$17,667,000

*TOTAL PROJECT COSTS AND CONSTRUCTION COSTS PROVIDED HEREIN ARE MADE ON THE BASIS OF ARCHITECT'S EXPERIENCE AND QUALIFICATIONS AND REPRESENT THE ARCHITECT'S BEST JUDGMENT. HOWEVER, THE ARCHITECT CANNOT AND DOES NOT GUARANTEE THAT BIDS OR ACTUAL TOTAL PROJECT OR CONSTRUCTION COSTS WILL NOT VARY FROM THE ESTIMATE OF PROBABLE CONSTRUCTION COST. THIS COST OPINION IS INTENDED TO ASSIST IN BUDGETARY ASSESSMENT AND DOES NOT GUARANTEE THAT ACTUAL PROJECT COSTS WILL NOT EXCEED OR BE LOWER THAN THE AMOUNTS STATED IN THIS COST OPINION.

APPENDIX C – DESIGN CONCEPT RENDERINGS





CITY OF NORTH LIBERTY - CENTENNIAL PARK EVENTS COMPLEX
OVERALL VIEW LOOKING SOUTH

















APPENDIX D: PRELIMINARY PROJECT SCHEDULE

August 2022	Concept Development
Aug. – Oct. 2022	Grant Application Process
Nov. – Dec. 2022	Develop Funding Plan, Initiate Design Contract
Jan. – Feb. 2023	Schematic Design, Costing and Review
March – June 2023	Design Development, Costing and Review
July – Sept. 2023	Construction Documents and Review
October 2023	Bid Phase*
November 2023	Award Contract
Dec. 2023 – May 2025	Construction**

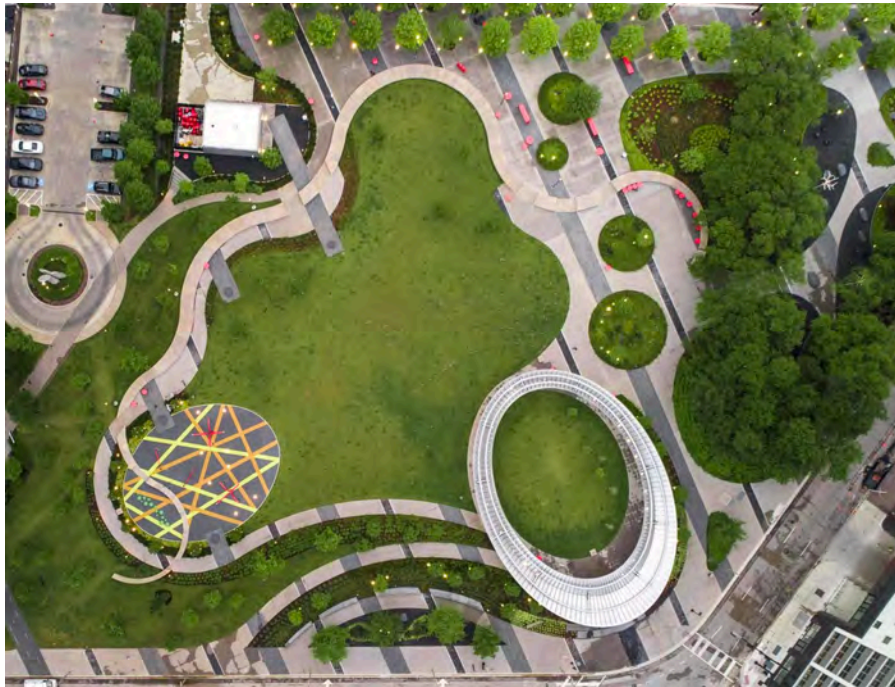
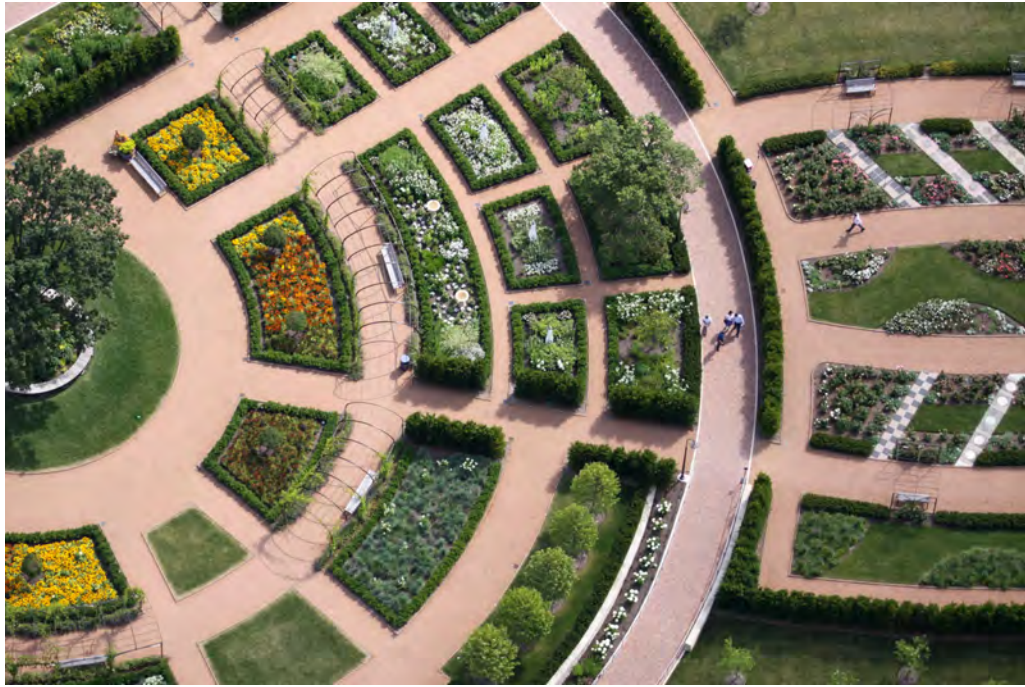
** Optimal packaging for bidding will be assessed early in design. The team will assess potential benefit for site development and buildings/structures to be issued as separate packages.*

*** Construction timeline will be developed further as the design is developed and is subject to change.*

APPENDIX E – UTILITY CONCEPT PLAN



APPENDIX F – INSPIRATION IMAGES







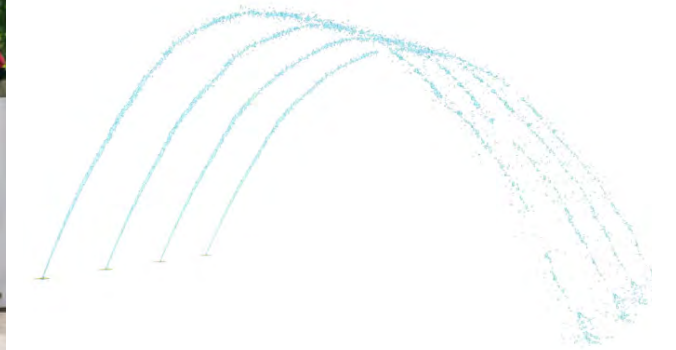
Vortex Bamboo Tree 1 Vortex Bamboo Tree 2



Water Odyssey Orbit



Vortex WaterJourneyTidePool



Vortex WaterTunnel2



WaterOdyssey ZenShower



WaterPlay Helices



Lumiflow LED lights



Aquatix AquaHedra



VOR 7230 LUNA N°1

PRODUCT HIGHLIGHTS

- Orbs spin under variable water pressure, keeping kids fascinated and entertained
- Users press Podsoreys to control each Orb's spin speed, promoting cognitive development in kids of all ages
- Multiple press points and heights mean lots of fun combinations plus the opportunity for collaborative play and social interaction



Vortex Luna No.1

ArtsPark at Young Circle is pretty amazing. The description articulates what we are looking for. A significant innovative cultural center and active and passive landscaped environment.

Accessibility for all should be a theme.

Pavilion/Indoor Event Space.

We talked about the event space holding 300 people.

Evans Center Towne Park stage is our favorite



Like black structure. Columns not too beefy for visibility.
Need some stage height for the stage, not a lot.
LED lights for cool colors.

Idea for event space/Pavilion in the back.



ArtsParks at Young Circle, Hollywood Florida.

We really liked this awning for multi-use. Like the natural color. Is there a way to build on the roof style at NL City Hall?

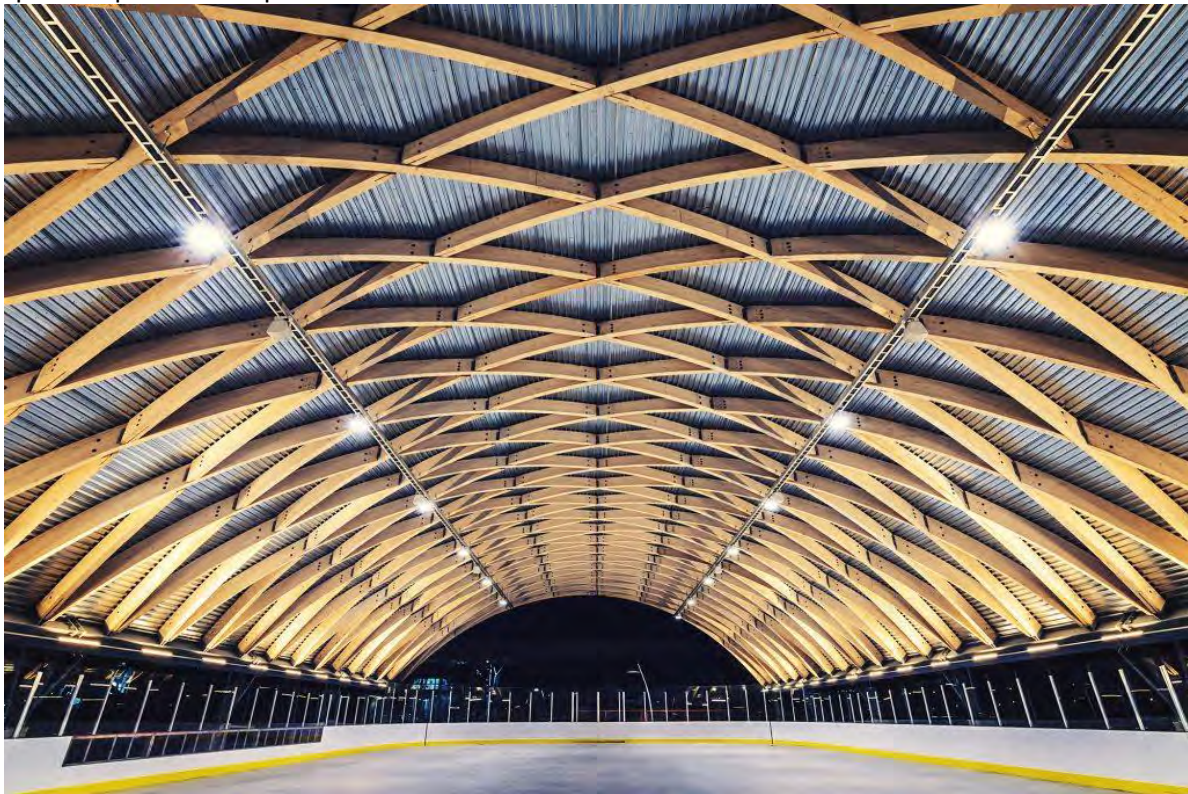


Johnson County City Hall

Howard Park in South Bend, IN is pretty amazing. Looks this space holds up to 150 people.



We talked about an open air structure like a pavilion that could be beer hall, community gathering space. Separate from pavilion. Would have to toward the south end. We like the natural color trusses.



Splashpad

We want the splash pad to be more elegant. As opposed to bright colors with flowers shooting water.

Use of LED lighting

Separate bathrooms

Use of stone for base of Pavilion could match seat walls for grass lawn, around splashpad. We debated what type of masonry to use. Seems like Coralville uses a lot of limestone.



Schwiebert Park, Rock Island, IL



Howard Park, South Bend, IN

Need for shade structures. Over splash pad and over grass seating area. Could be cloth type shade sails.



Other details

We like this little seating area. Rocks for kids to play on.



Green Square Park, Cedar Rapids.

We liked the use of low profile seat walls in the viewing lawn



Public Square, Cleveland, OH

Love the use of the multi-use hardscape – allows for food trucks.



ArtsParks at Young Circle, Hollywood Florida.

FLEXIBLE EVENT SPACE FEATURES

ELECTRIC
15
50A 150/250V
TWIST-LOCK
RECEPTACLES

30' x 60' EVENT TENT OPTION

TEMPORARY STAGE OPTION

PROGRAMMABLE LIGHTING

PERRY STREET
RIVER DRIVE
BRADY ST.
CPRR.

VENDOR TENTS
66
10' WIDE x 18' DEEP
VENDOR STALLS

FOOD TRUCKS
15
41' WIDE x 18' DEEP
FOOD TRUCK "PODS"

PARKING
60 STANDARD SPACES
4 HANDICAP SPACES
2 VAN ACCESSIBLE SPACES

Configure your own event!

An infographic titled "FLEXIBLE EVENT SPACE FEATURES" for Davenport, Iowa. It features a central aerial view of a rectangular event space layout. The layout is bounded by Perry Street to the north, River Drive to the east, Brady St. to the south, and C.P.R.R. to the west. The space is divided into a grid of stalls and pods. Various features are highlighted with callouts: "ELECTRIC" (15 50A 150/250V twist-lock receptacles), "30' x 60' EVENT TENT OPTION", "TEMPORARY STAGE OPTION", "PROGRAMMABLE LIGHTING", "VENDOR TENTS" (66 stalls, 10' wide x 18' deep), "FOOD TRUCKS" (15 pods, 41' wide x 18' deep), and "PARKING" (60 standard spaces, 4 handicap spaces, 2 van accessible spaces). The infographic concludes with the slogan "Configure your own event!".

Davenport, Iowa



ArtsParks at Young Circle, Hollywood Florida.

We love how all this ties in together.



Howard Park, South Bend, IN



Howard Park, South Bend, IN

Great use of Hardscape



Miller Park Chattanooga, TN