

**Property:** Parks  
**Site:** Mitchell Park\*

**Asset:** Conservatory (Domes)\*  
**Asset Number:** 4160

**Assets are ordered by Asset Name      Currency: USD**

**Statistics**

<b>FCI Cost:</b>	5,183,770	<b>FCI:</b>	0.14
<b>RI Cost:</b>	25,400,722	<b>RI:</b>	0.68
<b>Total Requirement Cost:</b>	25,400,727	<b>Asset Condition Rating:</b>	Fair

<b>Current Replacement Value</b>	37,588,241	<b>Address 1</b>	524 S Layton Blvd
<b>Size</b>	68,463 SF	<b>Address 2</b>	-
<b>Year Constructed</b>	1964	<b>City</b>	Milwaukee
<b>Year Renovated</b>	1995	<b>State/Province/Region</b>	WI
<b>Commission Date</b>	-	<b>Zip/Postal Code</b>	53215
<b>Decommission Date</b>	-	<b>Architect</b>	-
<b>Ownership</b>	Client Owned	<b>Historical Category</b>	None
<b>Floors</b>	1	<b>Construction Type</b>	WAC 5B Exterior Masonry - Unprotected
<b>Type</b>	Building	<b>Use</b>	Greenhouse
<b>Inventory:</b>	Yes	<b>Facility Category:</b>	Category 2

**Photo**



Architectural

**Asset Description**

**ARCHITECTURAL**

Building 2000, the Mitchell Park Conservatory (Domes), is part of the Milwaukee County Parks, East West Region, and is located within Washington Park at 524 South Layton Boulevard, Milwaukee, WI, 53215-1236. Included in the assessment of the building are adjacent walkways, parking lots, stairways, light fixtures and surrounding fences.

The four buildings are single story, domed structures with a single story and basement connector structure for a total area of 68,463 square feet for all buildings. The facility was constructed in 1964 and functions as a public amenity exhibition greenhouse space for exotic plants. A single story Gift Shop structure was added to the facility, between Domes B and C, in 1995. Three main domes (A, B & C) contain the plant exhibits and one dome (Transition House) is used as a nursery for the propagation of plants and plant maintenance. The single story connector structure, at the main floor level, consists of the Admissions Lobby, Assembly Area, Gift Shop, Educational space, Public Restrooms, Building Maintenance Space, and Loading Dock and at the basement level consists of Mechanical (Maintenance and Boiler) Room, Two 25,000 Gallon water storage tanks, Staff Restrooms and Locker Rooms, Offices and Storage Space.

Per the Wisconsin Administrative Code, Comm. Section 62, the Sherman Park Boys' and Girls' Club has a Use and Occupancy Classification of Assembly Group A-3. According to the Wisconsin Administrative Code, Comm. Section 51.03 the facility is a Construction Class, Exterior Masonry, Unprotected, Type 5B building as determined from field observations and as-built drawings. The NFPA Building Construction Type is II (111).

#### Building Exterior

At Domes A, B and C. the buildings' exterior wall substructures are reinforced concrete walls on spread footings; and the above grade buildings' envelopes, up to the base of the dome structure, are pre-cast, exposed stone panels over the substructure walls. The substructure also functions as a pipe trench on the interior of the building and a storm-water channel on the exterior. The buildings' roofs are Geodesic-shaped domes consisting of wired glass installed in a clear aluminum glazing support system attached to a matching interior structure of pre-cast concrete. The buildings' roofs are Geodesic-shaped domes consisting of wired glass installed in a clear aluminum glazing support system attached to a matching interior structure of pre-cast concrete.

At the Transition Dome the building exterior wall substructure is a faceted, variable thickness reinforced concrete wall on spread footings; and the above grade building envelope, up to the base of the dome structure, is brick veneer over the substructure walls. The building roof is wired glass in an aluminum-framed, atrium style, skylight; the faceted walls, above the concrete substructure, are wired glass in a clear aluminum-framed glazing support system attached to a matching interior steel and concrete structure. Around the full circumference of the building there is a mechanically operated, awning window, opening system.

At the single story buildings the exterior wall substructure is reinforced concrete walls on reinforced concrete footings and the above grade exterior walls consist of concrete masonry units with pre-cast stone veneer panels, brick veneer, and plastic (Kal-Wall System) translucent panels in aluminum glazing frame. The flat roofs are tar and gravel finish.

The exterior pedestrian doors are either hollow metal or solid core wood in pressed steel frames. Steel, overhead roller doors provide access to the basement level throughout the facility.

#### Building Interior

At Domes A, B and C. the buildings' interiors consist of the exposed concrete substructure walls, the geodesic dome pre-cast, painted structural frame and the roof glass. The floors generally consist of asphalt or exposed aggregate concrete paved sidewalks within the garden environments.

At the Transition Dome the basement interior wall finishes consist of exposed concrete some painted, as well as painted

and unpainted concrete masonry units. The exterior reinforced concrete walls are exposed on the interior of the main floor of this building as well as the wall and roof glazing structural systems. Generally the floor finishes throughout are unfinished concrete except for the Restrooms which have ceramic tile finish. There are no ceiling finishes except for exposed roof structure.

The single story building interior finishes at the basement level are similar to the transition dome basement. At the main floor level the ceiling finishes are lath and plaster, and suspended acoustic ceiling tile; the wall finishes are generally painted plaster, ceramic tile, translucent plastic wall panel system and some wood paneling in the office area; the floor finishes are ceramic tile in the Restrooms, terrazzo in the public spaces and carpet in the Gift Shop, Office and Educational Room.

The interior pedestrian doors throughout the facility are either hollow metal doors in pressed steel frames or solid core wood in wood or metal frames. The doors between the Domes and the public assembly lobby are fully glazed wood doors in wood frames. The door latching hardware is generally knob type.

## Structure

The exterior substructure and the interior structural support walls are reinforced concrete and concrete masonry units respectively; on reinforced concrete strip footing foundations.

Generally the interior structural components consist of reinforced concrete masonry units and there are interior reinforced concrete beams with columns founded on reinforced concrete pad footings. The roof structure in Domes A, B and C consists of reinforced, pre-cast concrete. In the Transition Dome the roof is structural steel supported on reinforced concrete columns and the exterior reinforced concrete walls and the flat roofs are open web structural trusses with channel decking and concrete topping. The floor structure for the Transition House first floor is cast in place reinforced concrete and at the basement floor structure is a slab on grade. The floors of Domes A, B, and C generally consist of asphalt or exposed aggregate concrete paved sidewalks within the garden environments.

## Handicapped Accessibility

Building 2000s compliance with handicapped accessibility was evaluated utilizing Wisconsin Administrative Code, Comm. Section 69 and ADAAG. This building is not exempt per the Wisconsin Administrative Code, Comm. Section 69.04. The building does not meet the requirements for accessible restrooms and the original building lacks compliant architectural hardware on interior doors throughout the facility. Compliant architectural hardware was included with the construction of the Gift Shop.

## Hazardous Materials

An asbestos report was not provided for this building; however, based on the 1964 date of construction, asbestos and lead containing materials may be present in areas of the building that have not been renovated.

## MECHANICAL

The HVAC system was being completely upgraded during our assessment period.

## Plumbing

Natural gas is supplied to the building by a 3 inch main located outside on the northeast elevation.

Domestic water is supplied by a 6 inch service equipped with an isolation valve. The incoming line does not have a backflow prevention device. Domestic hot water is generated by a 97 gallon gas fired hot water heater rated at 180,000 BTUh.

The main level men's room has 4 lavatories, 3 urinal and 3 water closets, while the women's room has 4 lavatories and 7 water closets. The basement level men's room has a double lavatory, 1 water closet and 2 urinals, the women's room has 2 lavatories and 2 water closets. All of the restrooms are in partial compliance with ADA. The drinking fountains are refrigerated units.

The sanitary system is gravity return to PVC and hub cast iron piping to the site sanitary system

#### Fire Protection

The building is not sprinkler protected. Hand held ABC type fire extinguishers are provided throughout and carry current inspection tags.

#### ELECTRICAL

##### Emergency Lighting and Power Systems

The building emergency power is supplied from a 250kVA Waukesha diesel at 120/208Volts. Power is transferred through an automatic transfer switch located in the physical plant room.

Most egress routes and exits are identified with a mix of incandescent, fluorescent and LED illuminated signs, many of the signs being the edge lit type. There is a Panel X which appears to supply emergency lighting from the standby generator but a lack of information could not confirm this arrangement.

On May 29, 2007 there was Transformer and Breaker Testing done at this sight by Town & Country Electric and Square D Services. The Test results are available at DPW.

##### Lighting and Branch Wiring

General illumination in common areas is provided by a mix of recessed fluorescent fixtures c/w acrylic lenses and T12 lamps. Offices are illuminated with 2'x4' 3l recessed fixtures c/w parabolic lenses and T12 lamps. Mechanical rooms are illuminated by suspended 2l industrial type fluorescent fixtures with T12 lamps. Surface mounted HID floodlight type fixtures have been used in the Domes to provide an up light wash effect on the sides of the structures. There are down light fixtures with mini quad lamps in the main entrance foyer. Exterior lighting in the parking areas is provided by decorative pole top mounted HID fixtures. All light circuits, with exception of the incandescent fixtures, are on 277 Volts.

##### Fire Alarm and Security Systems

The complex is equipped with a Silent Knight multi-zone non addressable fire alarm system complete with pull stations, smoke detectors and combination horn strobes.

##### Communication Systems



# Asset Detail Report

## *By Asset Name*

The facility is equipped with a separate PA system which also provides music throughout the structures. Telecommunications CAT5 wiring has been run throughout the complex.

### Disclaimer

This report reflects the equipment or system deficiencies, and that the cost estimates do not reflect the actual costs of the project. All projects need to be submitted to the DPPI to verify actual cost estimates for any Capital Budget requests. All small building structures (storage sheds, booths, etc.) should be submitted for review and approval to the local building inspector to ensure compliance with the Wisconsin Administrative Code.