

**ATTACHMENT C**  
**Philadelphia Museum of Art Facility Profiles**

**1. INTRODUCTION**

- A. This section of the specification is not all inclusive, and is based on original construction documents and available maintenance information. Arrange a site visit to become familiar with all conditions affecting the work scope, and construction conditions.

**2. MAIN BUILDING, 2600 Benjamin Franklin Parkway**

**A. Site Description, Main Building**

1. General

- a. The museum's Main Building was completed in 1928 at the northwest end of Philadelphia's Benjamin Franklin Parkway. The Museum stands on the site of the former city reservoir. It marks the easterly entry into the Fairmount Park system and the westerly end of the Benjamin Franklin Parkway, the first diagonal boulevard in the city, which terminates at City Hall. The intention was to replicate Paris's Champs-Elysees in Philadelphia with cultural institutions placed along the boulevard.
- b. The Main Building site is accessed via stairs from Eakins Oval to the east (the Rocky stairs) or via Anne d'Harnoncourt Drive which loops between Kelly Drive to the north, up in elevation to the west side of the building, and drops back down to Spring Garden Street to the south. Ramparts surround the building, forming a flat terrace around the building which contains parking and an access drive. The south side of the site contains the service yard and loading dock, as well as a pair of cooling towers.

2. Access

- a. There are multiple public and staff entrances to the Main Building. Public access is currently provided via entrances from both the East Terrace (into the Great Stair Hall on Level 1) and West Terrace (into Lenfest Hall on Level A). In late 2018, the North Entrance (at Level C) off Anne d'Harnoncourt Drive will be reopened as a public entrance for the first time since the 1950s as part of the Core Project. In addition to the public entrances, there is a secured staff entrance at Level A Section 7 accessed from the North Terrace and delivery/staff entrances at the loading dock in the south service yard. Other doors around the building are alarmed emergency-only exits.

3. Site Lighting

- a. Decorative lampposts with either a single fixture, or a grouping of four fixtures are located around the site. These provide lighting to sidewalks, roadways, parking lots, and the east stairs up from Eakins Oval.
- b. Architectural lighting is provided via two sources. Ground mounted flood lights wash the exterior walls of the building and lighting is provided in the ceiling of each portico to back light the columns.

4. Site Utilities

- a. Electric: Redundant 13.2kV PECO feeds enter new substations on the west side of Level B off Anne d'Harnoncourt Drive.
  - b. Steam: High pressure steam into the building is via an interior vault adjacent to the North Entrance.
  - c. Gas: PGW natural gas service enters near the North Entrance.
  - d. Water: PWD 6-in domestic and fire services enter near the North Entrance.
  - e. Public Sewer: combined storm/sanitary discharge from the building is located near the North Entrance.
5. Landscape
- a. The majority of the terrace is asphalt paved for vehicular navigation around the building as well as parking. The east courtyard has a central fountain, surrounded by bluestone paving, with a vegetative buffer between the bluestone and the building.
  - b. There are green roof elements on the south side of the building over the portions of the facility constructed in the last 8 years as part of the Art Handling Facility expansion of the building.
  - c. Below the terrace level, from the ramparts outwards, has a mix of various landscaping on the different sides of the site, including plantings, trees and shrubs, and lawn areas.
6. Parking
- a. Garage: A subterranean garage with 442 stalls spread over 4 levels exists to the northwest of the Main Building, across Anne d'Harnoncourt Drive.
  - b. Surface Lots: Asphalt paved surface parking lots are located on the north, northwest, and southwest terraces.
  - c. On-Street Parking: The south side of Anne d'Harnoncourt Drive has a short parking lane adjacent to the northbound lane.
  - d. Service Yard: Limited parking for PMA-owned vehicles is provided in the Service Yard on the south side of the site.

## **B. Building Narrative Description, Main Building**

1. The Main Building is five floors (three above grade) comprising 631,000 square feet. In 2013, a new Art Handling facility was constructed at the south side the building to enhance the Museum's ability for shipping and receiving works of art. This new addition added an additional 38,000 square feet of new space. Functional and departmental spaces provided include, but are not limited to the following:
  - a. Gallery spaces
  - b. Education and meeting spaces
  - c. Office spaces
  - d. Retail spaces
  - e. Restaurant and commercial kitchen spaces
  - f. Workshop and storage spaces for art
  - g. Workshop and storage spaces for facility management
  - h. Vertical circulation consisting of seven (7) elevators

2. The Main Building exterior façade is Minnesota Dolomite Limestone (MDL). The roof is made up of terracotta, glazed poly chromed roof tiles covering 2.2 acres of roof. The windows are steel framed, single pane glass throughout.

### **C. Description of Mechanical Systems, Main Building**

1. HVAC Systems Description
  - a. Of the approximately 669,000 total square feet of space, approximately 160,000 square feet are galleries conditioned to the museum environment.
  - b. A central chiller plant and utility-provided steam are used to supply air handling units throughout the building.
2. Hot Water System
  - a. Electric hot water heaters of various sizes and capacities are located throughout the building, usually close to the point of distribution. A recirculation loop serves approximately 25% of the hot water distribution system.
3. Chilled Water System
  - a. Two main chillers service the Main Building via a chiller plant on the north side of the building. One is an 850-ton Trane chiller and the other is a 1200-ton McQuay Chiller de-rated to 1000-ton. The system utilizes three chilled water pumps and three condensed water pumps to provide chilled water to 19 air handlers throughout the building. A chemical treatment system is used for the condensed and chilled water loop. In addition, there is a 100-ton chiller located in the south side of the facility which is only utilized in the summertime.
  - b. A small number of kitchen walk-in boxes utilize domestic water to cool the condenser, while the rest are on the chilled water loop.
4. Steam System
  - a. The building relies on the Veolia steam system for the supply. Incoming steam is 150 psi coming into the Main Building, which is reduced two times; the first time to 65 psi and the second down to 7 psi. The incoming 150 psi steam is also sent to the Perelman Building to the north via a utility trench under several roadways.
  - b. Steam is used in the building for humidification, which is performed at each air handler and at the distribution VAV systems.
  - c. Steam is also utilized for VAV reheats as well as perimeter radiation. Steam radiators are located near each window on each floor. Steam condensate is not currently used; most of the building (except as noted below) is quenched and dumped.
  - d. The new Art Handling Facility energy recovery unit is utilized to capture heat for reuse. The steam is treated with amines to prevent pump corrosion.
5. Cooling Tower System
  - a. A two-cell cooling tower with counter flow cooling design is located outboard of the southwest rampart. Water distribution is through a spray

nozzle distribution over PVC fill, and into a sump at the bottom of the cooling tower.

- b. Each cooling tower cell has a 950-ton capacity.

6. Air Handling System

- a. There is a total of 18 air handling units in the building.
- b. The AHUs consist of cooling coils and humidifiers. Each AHU has three banks of filtration consisting of pre-filter, final filter, and carbon filter bank. AHUs and VAVs are both operated via automation control on a Siemens Apogee system. Majority of AHU motors are variable-frequency drive. The outside air dampers are fitted with CO2 sensors within the ductwork to control outside air intake. Each AHU has a fractional horse power freeze pump.
- c. The air handling units have premium efficiency motors and run continuously (24/7/365).
- d. Baseline indoor environment for the galleries is 70 degrees Fahrenheit at 50% RH. During the heating season, tolerances expand to allow down to 68 degrees F at 47% RH and during the cooling season, up to 76 degrees F at 53% RH.
- e. The vestibule of the parking garage has a stand-alone split system with a 5-ton heat pump.

7. Fan Coil Units

- a. None in this building.

8. Ductwork and Distribution

- a. The air handlers are ducted to the VAVs. Each VAV supplies tempered air to a space(s) and/or gallery(ies). The air handlers maintain 1.5-inches of static pressure to each of the VAVs.

9. Ventilation Systems

- a. Limited ventilation systems exist in the Main Building. Those present are provided for some electrical rooms, toilet exhaust fans, and the kitchen hood exhaust.

10. Heating Systems

- a. See Item 2.C.5.c above.

11. Building Automation Systems

- a. The building utilizes a Siemens Apogee Building Automation System (BAS) that monitors and operates many systems: air handling units, VAVs, cooling tower, chillers, and weather station. There are multiple field panels in building that sensors report to and send data to the front-end computer.
- b. A single Liebert unit provides critical environment control for a particularly sensitive piece of artwork.

12. Domestic Water Systems (Hot & Cold)

- a. A dual pump domestic pumping station increases pressure in the domestic cold water distribution system.
- b. Two kitchen walk-in boxes utilize domestic water to cool the condensers.

- c. Two feeds coming in to the building on the North side are approximately 6 inch. One of them is dedicated to the building's fire pump system and one domestic.
  - d. Backflow preventer station is located in the mechanical space on the North side of the building.
13. Combined Sanitary/Storm Drainage System
- a. Drainage from water closets, urinals, lavatories, sinks, mop receptors, drinking fountains, floor drains, and commercial kitchen drainage. Building has one duplex sewage ejector pump in Section C3.
  - b. The storm drain system services roof drains, rain water conductors and area drains for approximately 2.2 acres of roof area.
14. Plumbing Fixtures
- a. Consist of water closets, urinals, lavatories, sinks, and mop receptors. The majority of the building's flush valves and hands-free sink faucets are battery operated.
15. Natural Gas System
- a. Consists of metering station and associated valves. Natural gas system provides supply to the building's emergency generator and commercial kitchen equipment.
16. Fire Protection Piping System
- a. Fire protection piping system consists of pipes, fittings, valves, and connections for sprinkler systems and dry sprinkler systems. The fire protection system currently exists on Level C, Level B, and parts of Level A.
  - b. Hose stations are located throughout Level C and Level B with a 6-inch fire main located on Level C Section 5.
  - c. An electrical fire pump located within the steam room on Level C Section 5 provides adequate system pressure when in operation. Other equipment associated with fire pump include a fire pump control panel and jockey pump, as well as a back-flow preventer with associated valves. The fire pump and back flow preventer are scheduled to be replaced as part of the Core Project scope of work.
17. Sprinkler Systems
- a. Located on Level C, Level B, and the kitchen area in Level A Section 3. Fire Department connections are located on the south side in the loading dock area and at the North Entrance.
18. Compressed Air Systems
- a. There are two main compressed air (CA) systems for the building: one reciprocating compressor system provides pneumatic air to control perimeter radiation actuators as well as some conservation instruments. A second system consists of a rotary compressed air system that provides pneumatic air for chiller operation, air handler control, and VAV control.

**D. Description of Electrical Systems, Main Building**

1. Primary Distribution
  - a. Primary service for the Main Building is supplied by PECO Energy via two normally energized 13,200-volt underground service lines; Parrish 142 and Westmorland 1067. The service entrance terminates in PECO approved switch gear located in a newly-constructed substation in Level B Section 3 of the building.
  - b. 13.2 kVAC switch gear contains provisions for utility metering, primary selective transfer, and space for future circuits breakers.
2. Secondary Distribution
  - a. Power is distributed to each section of the building one through seven, where electrical substations are located either in Level C or in the attic. Branch circuits provide power to the associated building section either directly or via additional panels in the attic.
3. Equipment and Motor Loads
  - a. All major equipment loads and motors are supplied with at 480-volt, three phase from distribution and power panels located near the load. Each major equipment load has a dedicated motor control center (MCC) which incorporates the necessary starters and controls. Smaller motors and equipment are serviced at 120 or 208 volts via local step down transformers and distribution panels.
4. Lighting
  - a. Lighting in the galleries on Level 1 and Level 2 is operated via MicroLite computer system. Generally, lights are programmed to come on at 6 a.m. and stay on until 7 p.m. On Sunday nights, Wednesday nights, and for special events, lighting may operate for a longer period of time. The lighting circuits are broken down into two types: daylight circuiting and emergency night light circuiting. Gallery lighting is a combination of LED, metal halide, florescent, and fiber optics.
  - b. Office areas are lite using T8 florescent lamps.
  - c. Back-of-house lighting combo of T8 florescent lamps and CFL lamps.
5. Exterior Lighting
  - a. Exterior lighting is a combination of site lighting and architectural lighting. Please refer to section 2.A.3 above.
6. General Purpose Receptacles and Power Requirements
  - a. General power is provided by three phase dry type step down transformers which provide 208/120 VAC power to local panels for branch circuit distribution to general purpose receptacles and small power loads. Transformer sizes vary from building section to section as well as distribution panels, which also vary in size. Transformers are normally located within electrical rooms throughout the building.
7. Emergency Power and Lighting
  - a. Two (2) natural gas emergency generator systems are located in Level C Section 5. One emergency generator is 140 KW generator, which provide power to building emergency lights, life safety equipment, and one elevator at a time by use of emergency elevator selector switch. The

- second is a 15 KW generator and serves as a backup to the 140 KW generator and only provides power for security and life safety equipment.
- b. As part of the Core Project, a new generator is arriving sometime in mid-2017, which will replace the two existing generators.
8. Lightning Protection System
    - a. All rooftop equipment, steel parapet railings and the building steel is connected to the lightning protection system.
  9. Fire Detection and Alarm System
    - a. The main building is protected by two fire alarm systems. One system is a Pyrotronics system, which is not addressable. If an alarm is detected, the Pyrotronics panel in the security control room annunciates that an alarm has been detected. This system does not automatically place the building into alarm.
    - b. Second system is a Siemens Cerberus system. This system is addressable, and annunciates in the security control room. This system will automatically place the building into alarm setting off audible alerts, as well as building strobe lights.

### **3. RUTH AND RAYMOND G. PERELMAN BUILDING, 2525 PENNSYLVANIA AVENUE**

#### **A. Site Description, Perelman Building**

1. General
  - a. The Ruth and Raymond G. Perelman Building of the Philadelphia Museum of Art is located on a 5-sided lot generally bounded by 25<sup>th</sup> Street to the east, Fairmount Avenue to the south, Pennsylvania Avenue to the southwest, 26<sup>th</sup> Street to the west, and the back yards of the parcels on the south side of Meredith Street to the north.
  - b. The building is made up of four segments with frontages on 25<sup>th</sup>, Fairmount, Pennsylvania, and 26<sup>th</sup> Streets. The interior of the lot contains a secured parking lot.
2. Access
  - a. Access to the building is via a public entrance on Fairmount Avenue near the intersection with Pennsylvania Avenue. There is an accessible entrance to the west of the main stairs with utilizes a lift within the building. A staff entrance is located on the north side of the building off the parking lot, and is adjacent to a loading dock. Several stair towers have at-grade emergency exits that discharge to the sidewalks around the building.
3. Site Lighting
  - a. Site lighting on the street frontages is via street lamps. High mast lighting is utilized within the site in the secured parking area. Additional exterior lighting is described below in Section 3.D.5.
4. Site Utilities

- a. Power and steam (along with chilled water and internet service) are routed to the Perelman Building from the Main Building in the south. There is a submeter for the power feed.
  - b. City water, both a 6-in. domestic and fire service, as well as storm and sanitary sewer connections are made to the site. There is no natural gas service to the Perelman Building.
5. Landscaping
- a. The site contains a plaza on the north side of the building near the junction of the Fairmount and Pennsylvania Avenue segments of the building. The plaza is hardscaped and constructed atop ground floor spaces.
6. Parking
- a. 52 stalls are provided in a private lot on the north side of the building. The lot is controlled access via driveways on both 25<sup>th</sup> and 26<sup>th</sup> Streets.
  - b. One EV charging station is located within the secured lot.
  - c. 9 stalls are provided in an un-secured lot off of 26<sup>th</sup> Street immediately north of the driveway to the secured lot.

## **B. Building Narrative Description, Perelman Building**

1. The Museum's campus also includes the Ruth and Raymond G. Perelman Building (2525 Pennsylvania Avenue), a lavishly decorated with sculpture, color, and gilding building that is regarded as one of the finest Art Deco structures in Philadelphia. Completed in 1927 by one of three architectural firms that built the Main Building, the building originally served as the headquarters for the Franklin Mutual Life Insurance Company until 1972. The building was listed on the National Register of Historic Places in 1973.
2. The Museum purchased the Perelman Building in 2004 and opened it to the public as part of the Museum in 2008 after a full renovation and expansion of the facilities. When purchased, the building was 125,000 square feet and through the renovation, the Museum reclaimed an additional 59,000 square feet of space. The building was renovated and a 59,000 square feet addition was built to accommodate new galleries, art storage, offices, and public services.
3. The Perelman Building is five floors (four above grade). Functional and departmental spaces provided include, but are not limited to the following:
  - a. Gallery spaces
  - b. Meeting spaces
  - c. Office spaces
  - d. Retail spaces
  - e. Restaurant spaces
  - f. Workshop and storage spaces for art
  - g. Workshop and storage spaces for facility management
4. Vertical circulation consisting of five (5) elevators, plus an accessible lift
5. The Perelman Building features a polychrome Indiana limestone facade with steel framed, single pane windows with a retrofit storm window system on the interior side. The roof over the existing portion of the building was replaced in the 2007 renovation to a modern system of salvaged historic tiles reinstalled atop a new membrane and rigid insulation board. The roof system over the addition to the building is a built-up, ballasted flat roof.

## C. Description of Mechanical Systems, Perelman Building

1. HVAC Systems Description
  - a. Perelman Building is dependent on the Main Building for the chilled water, condensate return, and steam utilized in the HVAC systems.
2. Hot Water System
  - a. Steam generated hot water system. Hot water is distributed through water pumps to VAVs and reheat coils.
  - b. There are two (2) heat exchangers for generating HVAC hot water from steam and two (2) steam hot water tanks for domestic hot water.
3. Chilled Water System
  - a. Perelman's chilled water is supplied and returned from the Main Building. Booster pumps are located in the Main Building.
4. Steam System
  - a. Incoming steam is 165 psi which steps down to 70 psi and then to 15 psi. Incoming steam is sent from the Main Building to the Perelman Building via a utility trench.
  - b. Steam is used for humidification and heat.
5. Cooling Tower System
  - a. Perelman Building is connected to the Main Building cooling tower system.
6. Air Handling System
  - a. There are 13 major air handling units (AHUs) that provide entire building—12 ordinary and one (1) specialty. The AHU motors are VFD and the AHU's are controlled by the Siemens Apogee system.
7. Fan Coil Units
  - a. While most of the building has VAV units, the annex (the northern-most part of the west side of the building) and computer rooms rely on single speed FCUs. The server rooms have Liebert units.
8. Ductwork and Distribution
  - a. Insulated rigid duct from AHUs to spaces and flex to diffusers.
  - b. Uninsulated return duct.
  - c. There are approximately 32 zoning humidifiers, and approx. 50 VAVs in the Perelman Building.
9. Ventilation Systems
  - a. Limited ventilation systems exist in the Perelman Building. The paint room has a special hood, the kitchen has a hood, and the labs have fume hoods in addition to toilet room exhaust fans.
10. Heating Systems

- a. Please refer to the discussion of the heat exchangers in Section 3.C.2.b above. Supplemental electric heat in annex stairwell as well as atrium and IT skylights for condensation control.
11. Building Automation Systems
- a. The building utilizes a Siemens Apogee Building Automation System (BAS) workstation that is tied to the Main Building BAS server.
12. Domestic Systems (Hot & Cold)
- a. A dual pump domestic pumping station increases pressure in the domestic cold water distribution system.
  - b. Two feeds coming in to the building on the North side are approximately 6 inches. One of them is dedicated to the building's fire pump system and the other is domestic.
  - c. Backflow preventer station is located in the mechanical space on the North side of the building.
13. Combined Sanitary/Storm Drainage System
- a. The sanitary and storm drainage systems are separate. Roof leaders, parking lots, and area drains in patio all go to the storm drainage system.
  - b. Sanitary is routed separately, with a small portion of the building employing a ejector pit/pump system.
14. Plumbing Fixtures
- a. Consist of water closets, urinals, lavatories, sinks, and mop receptors. The building's flush valves and hands-free sink faucets are battery operated.
15. Natural Gas System
- a. No natural gas in Perelman Building.
16. Fire Protection Piping System
- a. The fire protection system in Perelman currently exists from the Ground Level up to Level 5.
  - b. There are wet and dry systems. Dry system is for the annex bridge and for the loading dock, everything else is wet pipe system.
  - c. There is additional FE25 for art storage areas on Ground Level and Second Level.
  - d. Fire hose cabinets are located throughout the building.
  - e. Dry standpipe system for the annex and the wet standpipe for the rest of the building.
  - f. An electrical fire pump located within the steam room provides adequate system pressure when in operation. Other equipment associated with fire pump include a fire pump control panel and jockey pump, as well as a back-flow preventer with associated valves.
17. Sprinkler Systems
- a. Fire Department Connections are located under the bridge along 26<sup>th</sup> Street in the west and along 25<sup>th</sup> Street in the east.
18. Compressed Air Systems

- a. Two compressed air systems are in place in the building
  - a. A Quincy dual compressor system is used for the steam valves.
  - b. A standalone two-compressor system is used for the spray booth.

**D. Description of Electrical Systems, Perelman Building**

1. Primary Distribution
  - a. An underground transformer adjacent to the interior parking lot receives 13.2 kVA from the Main Building through a high voltage duct bank.
  - b. There is a sub-meter in the Perelman Building for its power usage.
2. Secondary Distribution
  - a. Switchgear in the vault with the transformer drops down to 480-volt and feeds to the breaker room. From there it is distributed out to transformers throughout the building.
3. Equipment and Motor Loads
  - a. Operate through VFDs instead of a dedicated motor control center.
  - b. Fire pump has a fire pump controller.
  - c. Elevators have their own disconnects. There are two (2) freight elevators, three (3) passenger elevators, one (1) dock leveler, and (1) accessible lift.
4. Lighting
  - a. Interior lighting in the Perelman Building uses a controlled level Lutron GRAFIK Eye 4000 system, for galleries and common areas. Supplemental Lutron controls are in place for a select few conference rooms, while room switching with occupancy sensors are in place for offices and the remaining conference rooms.
5. Exterior Lighting
  - a. Controlled by the Lutron GRAFIK Eye system, parking lot sodium halide, halogen wall wash lights in exterior wells (70w), T8 florescent lights at the architectural obelisks, and 400w sodium halide in archways.
6. General Purpose Receptacles and Power Requirements
  - a. General power is provided by three phase dry type step down transformers which provide 208/120 VAC power to local panels for branch circuit distribution to general purpose receptacles and small power loads. Transformer sizes vary from building section to section as well as distribution panels, which also vary in size. Transformers are normally located within electrical rooms throughout the building.
7. Emergency Power and Lighting
  - a. 500 KW emergency generator, which runs most of the AHUs, emergency power, emergency lighting, and elevators. The diesel unit has an UST with circulator pump to day tank.
8. Lightning Protection System
  - a. All rooftop equipment, steel parapet railings and the building steel is connected to the lightning protection system.

9. Fire Detection and Alarm System
  - a. The Perelman Building has a Siemens MXL system. This system is addressable, and annunciates in the security control room. Mix of heat and smoke detection is employed throughout. Horn/strobes are located throughout the building and sirens are used in some mechanical spaces.

#### **4. RODIN MUSEUM, 2151 BENJAMIN FRANKLIN PARKWAY**

##### **A. Site Description, Rodin**

1. General
  - a. The Rodin Museum and garden, along with surrounding park space, occupies a full city block, bounded by 21<sup>st</sup> Street to the east, the Benjamin Franklin Parkway to the south, 22<sup>nd</sup> Street to the west, and Hamilton Street to the north. A pass-through drive roughly aligned with Pennsylvania Avenue cuts across the site behind the museum.
  - b. The Rodin Museum building is buffered by an enclosed and gated garden at the east, south, and west sides of the building. The north side is along the Pennsylvania Avenue cut-through and has a sidewalk buffering the roadway from the building.
  - c. The garden encompasses a rectangular fountain south of the museum building. The main entry into the garden is through the Meudon Gate, a reproduction of the gate which Auguste Rodin had installed on his property in Meudon, France in the 18<sup>th</sup> century.
2. Access
  - a. To get near the museum, the gated garden can be accessed by one of three gates. A gate exists at the top of a staircase down from the Pennsylvania Avenue cut-through on both the east and west sides of the building, as well as a main gate at the south side of the site nearest to the Benjamin Franklin Parkway.
  - b. Access to the building is limited to a main entry portico in the front of the building – with separate entrance and exit doors – at the top of a flight of stairs. A second entry point, at grade, is provided in the rear of the museum directly off the sidewalk of the Pennsylvania Avenue cut-through.
3. Site Lighting
  - a. Exterior lighting is a combination of site lighting and architectural lighting.
  - b. Architectural lighting consists of ground mounted wall wash floods on the front (south) façade of the building. Also, two spot lights illuminate the sculptures in the south façade niches. These lights are controlled by a photocell on the roof of the museum.
  - c. Additionally, four (4) lamp posts with multiple pole-mounted fixtures are present. Two posts are outside of the Meudon gate at the south end of the garden, and two are inside of the gate. The outside posts illuminate the stairs to the gate, as well as The Thinker, while the interior posts illuminate both the garden and fountain. Lastly, pedestrian scale lamp posts are located throughout the walking paths traversing the lot beyond

the garden. These lights are controlled individually with photocells on the individual lamp posts

4. Site Utilities
  - a. Electric: Line-voltage PECO feeds building from pad-mounted transformer on the NE side of the site.
  - b. Gas: PGW natural gas service.
  - c. Water: PWD 2-in domestic service.
  - d. Public Sewer: combined storm/sanitary discharge from the building.
5. Landscaping
  - a. The Garden was designed by landscape architect Jacques Gréber, who had conceived the overall design of the Benjamin Franklin Parkway. The collaboration between Gréber and architect Philip Cret on the Rodin Museum and Garden created a gem of Beaux-arts style at its best, a serene enclave on the vibrant cultural corridor of the Benjamin Franklin Parkway
  - b. The museum garden was renovated within the last 6 years and was done so with the help of the Pennsylvania Horticulture Society.
6. Parking
  - a. There are a limited number of parking spaces along the north side of the pass-through drive along Pennsylvania Avenue.

## **B. Building Narrative Description, Rodin**

1. Philadelphia's historic Rodin Museum and Garden ranks among the jewels of the City's cultural institutions. Administered by the Philadelphia Museum of Art (PMA) since 1939, it is renowned for the beauty of its grounds and architecture, and for the importance of its holdings—one of the largest collections of works by Auguste Rodin in the world
2. Film magnate Jules Mastbaum first saw the sculptor's work in Paris in 1923, and immediately began an avid career as a collector. On May 12, 1926, the Commissioners of Fairmount Park formally accepted Mastbaum's proposal to create a museum for his great monographic collection. The opening of the Rodin Museum and Garden in 1929 made a gift of the building and the collection, to the citizens of Philadelphia—for their enjoyment and for "the cultural improvement" of the city.
3. The building was designed by the French architect Philip Cret, a professor of architecture at the University of Pennsylvania, who also designed the Benjamin Franklin Bridge, the Federal Reserve Building, the Detroit Institute of Arts, and the Barnes Foundation. The grand entrance gate is a replica of Rodin's tomb in Meudon, France.
4. The building has three levels utilized as such:
  - a. Basement level containing a kitchen, restrooms, small offices, mechanical and electrical rooms, including fountain pump room
  - b. First floor contains galleries, a gift shop, and restrooms

- c. The attic is used for storage and the north side is a mechanical room with the air handler unit.

**C. Description of Mechanical Systems, Rodin**

1. HVAC Systems Description
  - a. The main air conditioning system is a split system 40-ton York air handler located in the attic of the building. A condenser on the roof consists of eight (8) 6-horse power condenser fans. AHU supply fan has a 20-horse power supply fan as well as an 8-horse power return air fan. Control system is a York controller, standalone.
2. Hot Water System
  - a. One (1) 19-horse power gas fired boiler. Utilizing a 2-horse power circulating pump. Hot water is pumped to radiators located on the first floor and the attic section.
  - b. For the basement areas, electric reheat is used to condition these spaces.
  - c. One (1) 60-gal gas hot water heater provides domestic hot water to the basement kitchen and restrooms.
3. Chilled Water System
  - a. No chilled water system in the Rodin Museum building.
4. Steam System
  - a. No steam system in the Rodin Museum building.
5. Cooling Tower System
  - a. No cooling tower system in the Rodin Museum building.
6. Air Handling System
  - a. See Item 4.C.1.a.
7. Fan Coil Units
  - a. No fan coil units in the Rodin Museum building.
8. Ductwork and Distribution
  - a. The air handling units are ducted directly to the gallery spaces and basement.
9. Ventilation Systems
  - a. The four (4) restrooms in the building each have their own exhaust fan.
  - b. The attic has a two (2) separate exhaust fans to ventilate the attic of excessive heat in the summer.
10. Heating Systems
  - a. See Section 4.C.2.
11. Building Automation Systems
  - a. No building automation systems in the Rodin Museum building. There is a York control for the air handler and a thermostat on the gallery level to control the radiator heating.

12. Domestic Systems (Hot & Cold)
  - a. There is one (1) domestic water pump in the building that has a pressure switch which turns the pump off or on if pressure limit is satisfied.
  - b. Domestic water is used in the kitchen, restrooms, janitorial floor sink area, and for the fountain. The incoming domestic water line is a 2-inch supply line. The system incorporates a back-flow preventer, which is in the basement.
13. Combined Sanitary/Storm Drainage System
  - a. Drainage from water closets, urinals, lavatories, sinks, mop receptors, drinking fountains, floor drains all report to the city sewage system.
14. Plumbing Fixtures
  - a. Consist of water closets, urinals, lavatories, sinks, and mop receptors. The majority of the building's flush valves and hands-free sink faucets are battery operated.
15. Natural Gas System
  - a. Natural gas system consists of metering station and associated valves.
16. Fire Protection Piping System
  - a. No fire protection piping system in the Rodin Museum building.
17. Sprinkler Systems
  - a. No sprinkler system in the Rodin Museum building.
18. Compressed Air Systems
  - a. No compressed air system in the Rodin Museum building.

**D. Description of Electrical Systems, Rodin**

1. Primary Distribution
  - a. Electric is supplied by PECO. The main distribution panel is located along the East wall in the basement.
2. Secondary Distribution
  - a. No secondary distribution in the Rodin Museum building.
3. Equipment and Motor Loads
  - a. The only major equipment in the Rodin building is the 480-volt 3-phase air handling unit located in the attic.
  - b. Other equipment consists of pumps for fountain and domestic water which are low horse power motors.
4. Lighting
  - a. The Rodin Museum building had a Crestron lighting control system installed in 2013 which is currently operated manually. Interior building lighting is operated from 7am to 5pm daily, except on Tuesday when the museum is closed and the hours lighting are 7am to noon.

- b. The Crestron lighting system has the ability to be controlled remotely, however it must be connected to the PMA intranet in order to function as so.
  - c. Gallery lighting is a combination of LED, metal halide, fluorescent, and incandescent lamps.
  - d. Back-of-house areas are lit using T8 fluorescent lamps.
- 5. Exterior Lighting
  - a. Exterior lighting is a combination of site lighting and architectural lighting. Please refer to section 4.A.3 above
- 6. General Purpose Receptacles and Power Requirements
  - a. General power is provided from the distribution panels located in the basement for lighting and receptacles.
- 7. Emergency Power and Lighting
  - a. No emergency power and lighting in the Rodin Museum building.
- 8. Lightning Protection System
  - a. No lightning protection system in the Rodin Museum building.
- 9. Fire Detection and Alarm System
  - a. The Rodin Museum building has a Siemens Cerberus fire detection system. If an alarm is detected, the system automatically activates the speaker/ strobes evacuation system and sends a call to the alarm monitoring company.