SG-1265

United States Department of the Interior
National Park Service

National Register of Historic Places Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, *How to Complete the National Register of Historic Places Registration Form.* If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. **Place additional certification comments, entries, and narrative items on continuation sheets if needed (NPS Form 10-900a).**

1. Name of Property

historic name Niagara Power Project Historic District

other names/site number Not an MPDF

2. Location

street & number 5777 Lewiston Road (Power Vista) | N/A | not for publication

| | vicinity

city or town Towns of Lewiston and Niagara and the City of Niagara Falls

state New York code NY county Niagara code 063 zip code 14092-2199

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended,

I hereby certify that this _X_ nomination ___ request for determination of eligibility meets the documentation standards for registering properties in the National Register of Historic Places and meets the procedural and professional requirements set forth in 36 CFR Part 60.

In my opinion, the property _X_ meets ___ does not meet the National Register Criteria. I recommend that this property be considered significant at the following level(s) of significance:

___ national _X_ statewide _X_ local

Michael E. Lynch Deputy SHPO 4/28/17
Signature of certifying official/Title Date

State or Federal agency/bureau or Tribal Government

In my opinion, the property _X_ meets ___ does not meet the National Register criteria.

Signature of commenting official/Title Date

State or Federal agency/bureau or Tribal Government

4. National Park Service Certification

I hereby certify that this property is:

X entered in the National Register

___ determined eligible for the National Register

___ determined not eligible for the National Register

___ removed from the National Register

___ other (explain:) _____

Signature of the Keeper 7/3/17
Date of Action

Niagara Power Project Historic District
Name of Property

Niagara, NY
County and State

5. Classification

Ownership of Property
(Check as many boxes as apply.)

	private
	public - Local
X	public - State
	public - Federal

Category of Property
(Check only **one** box.)

	building(s)
X	district
	site
	structure
	object

Number of Resources within Property
(Do not include previously listed resources in the count.)

Contributing	Noncontributing	
2	0	buildings
		district
1	0	site
6	0	structure
		object
9	0	**Total**

Name of related multiple property listing
(Enter "N/A" if property is not part of a multiple property listing)

N/A

Number of contributing resources previously listed in the National Register

0

6. Function or Use

Historic Functions
(Enter categories from instructions.)

INDUSTRY/energy facility
GOVERNMENT/public works
RECREATION AND CULTURE/outdoor recreation

Current Functions
(Enter categories from instructions.)

INDUSTRY/energy facility
GOVERNMENT/public works
RECREATION AND CULTURE/outdoor recreation

7. Description

Architectural Classification
(Enter categories from instructions.)

MODERN MOVEMENT/Miesian
MODERN MOVEMENT/Brutalism

Materials
(Enter categories from instructions.)

foundation: CONCRETE
walls: CONCRETE; GLASS; METAL
roof: ASPHALT; SYNTHETICS
other:

Narrative Description

(Describe the historic and current physical appearance of the property. Explain contributing and noncontributing resources if necessary. Begin with **a summary paragraph** that briefly describes the general characteristics of the property, such as its location, setting, size, and significant features.)

Summary Paragraph

The Niagara Power Project (NPP) Historic District is a 2,589-acre district located on the north and east sides of the Niagara River in the Towns of Lewiston and Niagara and the City of Niagara Falls in Niagara County, New York. The NPP Historic District is a massive, complex engineering structure that includes six contributing structures, two contributing buildings, and one site. Each of the contributing structures contains individual components, which are outlined in the descriptions below, and an aerial view of the northern end of the district is shown in Figure 1 on the attached Photograph Continuation Sheet. The Niagara Power Project dominates the Niagara River and the surrounding landscape of Lewiston through its massive scale and bold design. The nominated resource consists of the 1,933-foot-long, 389-foot-high Robert Moses Dam and Power Plant; the 1,900-acre Lewiston Reservoir; the 240-megawatt Lewiston Pump Generating Plant; two 4.3-mile-long underground conduits; and numerous ancillary buildings and associated recreational facilities.[1] Built to harness the hydro-electric power of the Niagara River above Niagara Falls, the 2,400 MW Niagara Power Project is owned and operated by the Power Authority of the State of New York (PASNY), doing business as New York Power Authority (NYPA), and supplies electricity to a large service area in New York State as well as surrounding states.[2] The contributing buildings, structures, and landscape elements that compose the NPP have retained their integrity. With the exception of recreational facilities constructed within Reservoir State Park in 2011-2012 and changes to the interpretive Power Vista visitors Center in 2015-2016, the NPP has undergone no significant alterations since its completion in 1963.

Setting

The NPP is situated on the Ontario Lake Plain, a relatively flat expanse of land that stretches east from the Niagara River around Lake Ontario and south to the Erie Lake Plain. The Niagara River flows north 36 miles from Lake Erie to Lake Ontario and drops a total of 326 feet, and nearly 200 feet over the Niagara Falls, approximately four miles upstream of the Robert Moses Dam and Power Plant. The Niagara River forms a boundary between New York State and the Province of Ontario, Canada.

The NPP is surrounded on the north and south by primarily suburban residential development within a network of roads, parkways, and interstate highways. The Niagara University campus is located immediately south of the NPP Power Vista and Administration area. The largely rural and agricultural lands of the Tuscarora Nation are located to the east of the Lewiston Reservoir. The 4.3-mile-long underground conduits are not visible except for where they empty into the Lewiston Forebay/Afterbay. At the southern end of the NPP, the water intake structures and two gate hoist structures are located in the center of a small observation park at the Niagara River shoreline. The shoreline here was created from excavated fill from NPP construction. A section of the Niagara Scenic Parkway (NY-957A; formerly the Robert Moses Parkway) lies within the NPP boundary as it passes this park and the gate hoist structures. Another section of the parkway passes over the Robert Moses Dam and Power Plant at the NPP's northwestern end. Although intimately related to the Niagara Power project historically, the parkway has been evaluated as non-contributing because other parkway sections, outside the nomination boundary, have lost substantial integrity; among other factors, some parkway sections have been removed and thus it has lost integrity as an automobile transportation feature.

[1] Power Authority of the State of New York (PASNY), *32nd Annual Report of the Power Authority of the State of New York,* February 28, 1963, 3.
[2] PASNY, *Niagara Power Project: Data-Statistics* (PASNY, Lewiston, NY), 1965, 7.

Building/Structure Design and General Characteristics

The NPP contributing structures and landscapes were constructed under the direction of the New York City architectural firm of Slater & Chait, with John B. Peterkin of New York City serving as consulting architect; supervising engineers were Uhl, Hall & Rich of Boston; and the landscape design was by the firm of Clark & Rapuano, also of New York City. Robert Moses, PASNY chair between 1954 and 1962, oversaw the details of the NPP during both its design and construction phases, resulting in a uniformity of materials and design in its built resources.

The contributing resources in the NPP Historic District are divided into three major groups that each display different design characteristics: the six engineering structures that are directly related to hydroelectric power generation and transmission; the two support buildings that house offices, control areas, visitor facilities, and other staff work areas; and the resources of Reservoir State Park. The engineering structures include the Robert Moses Dam and Power Plant, Lewiston Pump Generating Plant, Electrical Switchyard, Lewiston Reservoir, Forebay/Afterbay, Conduit Corridor, and the Intake Area. These structures are all physically connected as one large system and feature utilitarian designs that express their sheer weight and massiveness with materials of reinforced concrete, metal, and stone. With the exception of the switchyard, these structures have reinforced concrete structural systems that are plainly exhibited with very little exterior ornamentation. They have broad, flat, wall surfaces of unfinished concrete interrupted only by changes in their underlying structural shapes. The Forebay/Afterbay structure is cut directly into the underlying bedrock of the site, which is left plainly exposed. In these ways, the engineering structures recall the Brutalist style of architecture, which was popular in the United States during the post-World War II period.[3] The switchyard is an enclosed rectangular area that contains all of the NPP's metal electrical switch and transmission equipment set on concrete foundations.

The NPP Historic District's two prominent support buildings are bound together as a group through the use of the Modern architectural style associated with architect Ludwig Mies-van der Rohe. This style is most clearly demonstrated in the NPP's central administration area's Power Vista and Administration Building, as well as in the Entrance Plaza and Lower Plaza areas that surround them. These buildings exhibit the common characteristics of Miesian architecture in their modular rectangular forms established by structural steel frames, glass walls, precast concrete roofs and exterior wall panels, and grid-like symmetry. The buildings plainly exhibit their grid structural frames with the main floors set back under cantilevered concrete slab roofs and, in the case of the Administration Building, behind outer piers or columns, which are hallmarks of Miesian design.[4] As was common during the Modern period, the buildings of the Power Vista were sited within public plazas, the Entrance Plaza and Lower Plaza, to emphasize their aesthetics and allow visitor access.

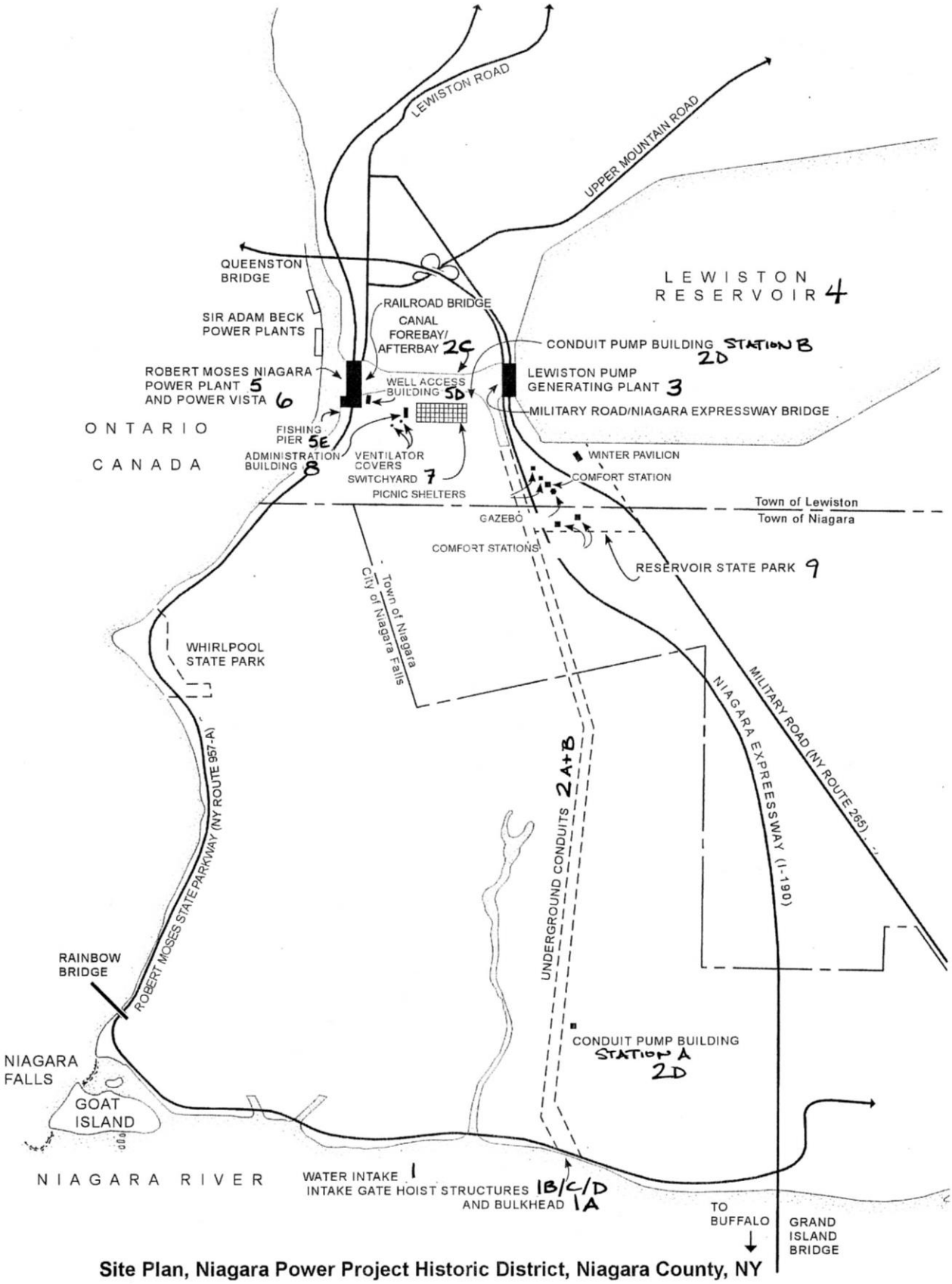
The Miesian style is used in a plainer, more utilitarian fashion in the Control Building at Robert Moses Dam and the Lewiston Pump Generating Plant Administration Building. These buildings have steel structural systems clad in precast concrete panels set in a regular grid pattern. The distinct rectangular grid pattern of this style is also displayed at the south end of the NPP Historic District in the two large Intake Gate Hoist Structures. The design of these rectangular structures emphasizes their verticality through the use of exterior I-beams or "fins" that rise uninterrupted along the building's exterior. The design is complemented by a stamped pattern on the exterior metal panels.

Other support buildings in the NPP Historic District display utilitarian Modern designs associated with a standardized version of the Brutalist architectural style common among public utility facilities during the 1960s. This style is expressed through unfinished concrete exteriors, flat roofs, and an overall look of weight and

[3] Marcus Whiffen, *American Architecture Since 1780: A Guide to the Styles* (Cambridge, MA: The MIT Press, 1992), 279.
[4] Ibid., 255.

massiveness. For instance, the Erection Bay buildings at both the Robert Moses Dam and the Lewiston Pump Generating Plant are massive, rectangular block-shaped buildings with heavy steel frames, precast concrete exteriors, and large entrance bay doors on either end. Their exterior panels display a distinct tapered stamp pattern found throughout the district. Both contain large interior work bays with traveling gantry cranes as well as smaller shops and service areas. The smaller workshop buildings and garages found in the Switchyard area and the Fish Cleaning Structure have similar utilitarian designs.

Niagara Power Project Historic District | Niagara, NY
Name of Property | County and State



Site Plan, Niagara Power Project Historic District, Niagara County, NY

RESOURCE INVENTORY

HISTORIC ENGINEERING RESOURCES

1) Water Intake Area (1958-1961) – 1 contributing structure

Components:
a) Bulkhead (East and West)
b) Water Intake Structures (East and West)
c) East Intake Gate Tower
d) West Intake Gate Tower
e) Stop-Log Storage Structure

Photographs 2-5/Historic Photographs 1-3

Contract No.: N-5 Award Date: May 12, 1958 Completion Date: May 12, 1961
Engineer/Architect: Uhl, Hall & Rich Contractor: Merritt Chapman & Scott

The headwater at the two NPP intakes averages 563 feet above sea level. The tailrace below the Robert Moses Power Plant averages 250 feet above sea level. Thus, the NPP takes advantage of 313 feet of the 326-foot difference between water levels between Lake Ontario and Lake Erie.[5]

The bulkhead and two "harmonica-shaped" water intakes are located on the Niagara River's north shore, 2.6 miles upriver (east) from the American Falls and are accessed from the eastbound lanes of the Robert Moses State Parkway (NY-957A). (The bulkhead and intake structures are shown in Photographs 2-5, and in Historic Photographs 1-3 in the additional items section at the end of this nomination.) The bulkhead and water intakes were constructed in a pumped-dry, 76-acre area behind a 0.5-mile-long cofferdam extending 1,200 feet into the river.[6] Excavated material from the riverbed was placed in the present-day Robert Moses State Parkway right-of-way. Additionally, an "ice-escape" channel to allow for ice movement in the river was blasted into the rock of the river bed downstream of the intakes. Rock removed for this channel was used in the construction of the Buckhorn Island dikes, which are used to help divert water flow into the intakes.

The approximately 0.3 mile-long concrete bulkhead extends for 500 feet upstream of the intakes at a 15° angle to the intakes and 1,000 feet downstream of the intakes. A small overlook park and walkway along the bulkhead offer views of the upper Niagara River. The NPP intakes, located along the face of the bulkhead, consist of two reinforced concrete structures, each 700 feet long. The structures (one for each conduit) contains 48 slotted openings that resemble the mouthpiece of a harmonica and vary from 13 to 26 feet below the water surface.[7] A stop-log storage structure is located beneath the Niagara Scenic Parkway at the Water Intake Area's western end.[8]

The East and West Intake Gates, one for each water intake and conduit, are identical structures that contain 400-ton vertical lift gates approximately 49 feet wide by 68 feet high. They each contain another slot for the stop-logs, which can be used in an emergency in place of the gates. The function of the gates is to stop the flow of water into the conduits so they can be pumped out for inspection or repair. Each gate is a vertically

[5] Uhl, Hall & Rich, *Niagara Power Project: Data-Statistics*,1965, 14.
[6] Uhl, Hall & Rich, *Niagara Power Project: Data- Statistics* (Niagara Falls: PASNY, 1964), 3.
[7] Ibid., 2.
[8] Ibid., 5.

oriented, rectangular, block-shaped structure that measures 55 feet wide and 100 feet high. The structures are set on a concrete base with metal entrance doors on the river façade and a 100-foot-tall, steel-framed metal-clad structure above it. The metal cladding consists of individual rectangular panels, with each tower having eight horizontal bands of cladding. The original stainless steel curtain-wall paneling was replaced in 2009-2010. The two structures were previously identified by pin-mounted metal lettering reading “Power Authority” and “Water Intakes” affixed on each tower’s north elevation, but this lettering was removed during the 2009-2010 re-cladding.

2) Conduit Corridor (1958-1961) – 1 contributing structure

Components:
a) East Conduit
b) West Conduit
c) Forebay/Afterbay
d) Dewatering Pump Stations A & B

Photographs 6-8/Historic Photograph 4-5

Work Section No. 1 (8,000 feet from Niagara River to 1,250 feet north of Pine Avenue. Contract also included intake structures)
Contract No.: N-5 Award Date: May 12, 1958 Completion Date: May 12, 1961
Engineer/Architect: Uhl, Hall & Rich Contractor: Merritt Chapman & Scott

Work Section No. 2 (9,000 feet from 1,250 feet north of Pine Avenue to 1,500 feet north of Lockport Road)
Contract No.: N-6 Award Date: June 2, 1958 Completion Date: June 6, 1961
Engineer/Architect: Uhl, Hall & Rich Contractor: Edward Balf Co and Savin Bros.

Work Section No. 3 (5,500 feet north of Lockport Road to canal)
Contract No.: N-7 Award Date: June 2, 1958 Completion Date: June 2, 1961
Engineer/Architect: Uhl, Hall & Rich Contractor: Gull Contracting

Work Section No. 4 (3,000-foot long canal)
Contract No.: N-8 Award Date: May 10, 1958 Completion Date: January 5, 1961
Engineer/Architect: Uhl, Hall & Rich Contractor: Channel Constructors, Peter Kiewitt Sons, Perini Corp, Morrison-Knudsen Co., and Walsh Construction Co.

Contract No.: N-8 Award Date: May 10, 1958 Completion Date: January 5, 1961
Engineer/Architect: Uhl, Hall & Rich Contractor: Channel Constructors, Peter Kiewitt Sons, Perini Corp, Morrison-Knudsen Co., and Walsh Construction Co.

The Conduit Corridor is composed of two underground water conduits that extend north from the Water Intake Area to the Forebay/Afterbay at the southwest corner of the Lewiston Reservoir, a distance of approximately 4.3 miles. They pass entirely underground beneath the City of Niagara Falls, the Town of Niagara, and the Town of Lewiston and drop 10 feet between their upriver and downriver termini. The conduits were built in four stages: Section #1 runs 8,000 feet from the Niagara River to 1,250 feet north of Pine Avenue. Section #2 runs 9,000 feet from the end of Section #1 to a point 1,500 feet north of Lockport Road. Section 3 runs 5,500 feet from the end of Section #2 to the 3,000-foot open Forebay/Afterbay (Section #4) which connects with the

Lewiston Reservoir.[9] (The Forebay/Afterbay and conduit discharge area are shown in Photographs 6-8, and historic views of the Conduit Corridor under construction are shown in Historic Photographs 4-5 in the additional materials section.)

The bedrock removed during excavation for the conduits was placed along the Niagara River shoreline west of the Grand Island Bridge to facilitate construction of the Niagara Scenic Parkway.[10] The conduits' construction also necessitated the removal or temporary rerouting of several bridges and railroad lines along the excavated route, in addition to the relocation of approximately 75 private homes.

The conduits were built as 40-foot sections with movable steel forms, mounted on rails, which were used for the pouring of the concrete walls. The floor of the conduit was poured first, followed by the walls or haunches, which were topped by a hinge groove. The arch, consisting of two halves, with a third hinge in the middle between them, completed the conduit. Each of the reinforced concrete structures measures 46 feet wide by 66.5 feet high to the crown of the three-hinged arched roof. Walls and floors are a minimum of 2.5 feet thick, with the arch supports nearly 7 feet thick. Combined capacity of the conduits is 83,000 cubic feet of water per second.[11]

De-watering pump stations are located between the conduits at a low point just south of Royal Avenue in Niagara Falls (Station A) and just south of the conduit outlet near the Lewiston Pump Generating Plant (Station B). Each pump station consists of a deep, reinforced concrete sump connected to the bottom of each conduit by concrete-lined intake tunnels. Station A is a one-story structure clad with pre-cast concrete panels, a removable flat roof with metal fascia to allow crane access to the sump, and a single-leaf metal entrance. At Station A, the deep-well un-watering pumps can discharge into either conduit to permit un-watering by pumping into the other. These pumps were removed in the 1970s. At Station B, water discharges into the open canal.[12]

The Conduit Corridor terminates in the Forebay/Afterbay, a 71-acre open-water canal between the Lewiston Pump Generating Plant and the Robert Moses Niagara Power Plant. It is an L-shaped unlined open canal cut directly into the underlying bedrock that functions as a transition structure between the conduit outlets and the two power plants. The canal is 500-feet-wide, 3,000-feet-long, and 110-feet deep. This dual-purpose structure collects water from the conduits and serves both as forebay (headwater) for the Robert Moses Niagara Power Plant to the west and as afterbay (tailwater) for the Lewiston Pump Generating Plant to the east (depending on whether it is pumping or generating). As such, water is either pumped up to the Lewiston Reservoir for storage, or discharged through the Robert Moses Niagara Power Plant into the lower Niagara River, producing electricity in the process. Its capacity is nearly 2 billion gallons of water at a depth that varies between 35 and 80 feet, depending on the power plant's operation.[13] During its construction between 1958 and 1960, bedrock was blasted, excavated, and stored within the Lewiston Reservoir boundaries, where it was either crushed for concrete aggregate or used for construction of the reservoir dike.[14] The structure also serves as a surge basin that can absorb an influx of water should an emergency require shutdown of the generating plants.

The Forebay/Afterbay was built under several construction contracts, reflecting its multi-functional role. Contract N-8 called for excavation "to about 1,000 feet east of the Lewiston Power Plant intake structure." Approximately 1,000 feet of the canal was excavated under Contract N-5 for the construction of the Robert

[9] Uhl, Hall & Rich, *Niagara Power Project: Data-Statistics,* (Niagara Falls: PASNY, April 1961), 18-19.
[10] Uhl, Hall & Rich, *Niagara Power Project: Data- Statistics,* 1965, 17.
[11] Ibid.
[12] Ibid., 18.
[13] Uhl, Hall & Rich, *Specifications No. PA-N-23007, Contract N-10 for Construction of Tuscarora Power Plant.*
[14] Ibid., 5.

Moses Niagara Power Plant Dam. Another 200 feet section was excavated under Contract N-10 for the construction of the Lewiston Pump Generating Plant and for the footings and foundation for the Military Road (NY-265)/Niagara Expressway (I-190) Bridge over the body of water.

3) Lewiston Pump Generating Plant (1958-1963) – 1 contributing structure

Components:
a) Lewiston Pump Generating Plant
b) Erection Bay
c) Administration Building

Photographs 9-11

Contract No.: N-10 (General Contract)
Award Date: September 8, 1958 Completion Date: June 1, 1963
Engineer/Architect: Uhl, Hall & Rich Contractor: Tuscarora Contractors, Arundel Corp, L.E. Dixon Co. and Hunklin-Conkey Construction Co.

Contract No.: NP-1 (Pump/Turbines)
Award Date: February 11, 1958 Completion Date: June 1, 1963
Engineer/Architect: Uhl, Hall & Rich Contractor: Allis Chalmers Mfg. Co. and S. Morgan Smith

Contract No.: NP-7 (Transformers)
Award Date: April 17 1958 Completion Date: June 1, 1963
Engineer/Architect: Uhl, Hall & Rich Contractor: Brown Boveri Corp.

Contract No.: NP-35 (Penstocks)
Award Date: February 24, 1958 Completion Date: June 1, 1963
Engineer/Architect: Uhl, Hall & Rich Contractor: Chicago Bridge and Iron Co.

The Lewiston Pump Generating Plant is located approximately one mile due east from the Robert Moses Power Plant, at the east end of the Forebay/Afterbay at the west end of the Lewiston Reservoir in the Town of Lewiston. The plant consists of an intake and transformer structure, an abutting generator structure, and other appurtenant structures. The reinforced concrete gravity structure measures in total 975 feet long, 160 feet high, and 240 feet wide. (The plant is shown in Photographs 9-11.)

The Lewiston Plant's dual function is indicated by its name. At night, surplus power from the Robert Moses Niagara Power Plant is used by units of the Lewiston Plant to pump extra water available under the 1950 US-Canada Treaty into the Lewiston Reservoir. During daytime peak power demand periods, the stored water is released to flow through the Lewiston plant units, which are reversed to function as turbines and generators. Besides producing power, the water flows down the forebay to be reused through the generating units at the Robert Moses Niagara Power Plant.

The intake and transformer structure consists of twelve 68-foot unit blocks with two abutting blocks at the south end housing cooling water screen wells and intake gate repair facilities. Concrete core walls extend north of the intake and transformer structure and south of the abutting blocks for connection to the earth and rock fill reservoir embankment. Each unit block contains a water intake, the entrance of which is divided by a pier into two passages. Each passage is provided with trash racks, emergency stop-log slots and intake gate slots. The

vertical lift intake gates are operated by fixed gate hoists located on the intake deck and protected by metal housing. A 65-ton traveling gantry on the intake deck handles the trash racks and stop-logs.[15]

Each water passage to the hydraulic turbines consists of a double-barrel entrance and transition section connecting to the steel-lined penstocks. The four main transformers are mounted on the downstream deck of this structure in open cubicles formed by interspersing equipment and storage facilities. The plant's upstream or upper deck is tied to the rock-fill Lewiston Reservoir dike by concrete core walls. Access to the intake deck level is provided by two stairwell and elevator towers located at the north and south ends of the plant. The erection bay, which holds the traveling gantry crane, along with other service buildings, are located at the south end of the lower deck.[16]

To the north and south of the intake structures, the concrete gravity core-wall structure forms the connection with the Lewiston Reservoir dike. Both core walls are similar in design with the top reaching an elevation of 665 feet and the upstream and downstream walls receding in slope from bottom to top where contact is made with the reservoir dike. An inspection gallery runs the length of both structures.

The reinforced concrete intake structure is founded on rock benches. Twelve penstocks, one for each unit, convey water from the reservoir to the pump turbines and in reverse. Each penstock, approximately 170 feet long, tapers from 24 feet in diameter at the upper end to 18 feet in diameter at the lower end. Twin intake portals for each unit may be closed by means of steel gates with individual gate hoist equipment located in the gate hoist building on the intake deck. A three-foot-thick concrete intake apron on the floor of the reservoir slopes up from the intake mouth to the rim, about 100 feet from the intake. Immediately to the west of the generating plant, extending over the draft tube outlets and the forebay, is a bridge complex that supports two lanes of relocated Military Road and the four-lane Niagara Expressway.

The reversible pump generating installation within the plant consists of 12 motor-generators directly connected to 12 hydraulic pump turbines. The complete pump-generating units are mounted below the downstream or lower deck of the plant under removable hatch covers. Steel penstocks, between 18 and 24 feet in diameter, are embedded in the concrete. A 150-ton gantry traveling crane on the lower deck can handle the motor generator and pump/turbine assemblies, trash racks, and gates.

At the south end of the generator structure and downstream of the abutment blocks is the Erection Bay, a rectangular, block-shaped building housing the various service and shop facilities, the erection bay, and the office and assembly bay. Similar to the Erection Bay building at the Robert Moses Power Plant, it has a steel frame structure with an exterior of precast architectural concrete panels. The exterior panels on the east and west elevations are arranged in a "folded" pattern. There is a full-width, vertical-lift bay door on the north elevation to admit the plant's 150-ton crane that travels back and forth across the generator deck. The crane is used to remove generator assemblies for repair and maintenance. There is a smaller vertical-lift bay door is on the south elevation. The Erection Bay contains a second overhead traveling gantry crane that moves equipment once it is inside the building.

The Lewiston Plant's Administration Building is sandwiched between the Lewiston Pump Generating Plant and the Erection Bay. It is a one-story, rectangular building with a flat roof and a Miesian-style south entrance façade characterized by the frank expression of its metal grid structure. The entrance façade is composed of floor-to-ceiling fixed windows with vertical metal dividers and there is a central full-glass entrance with double doors. The façade is recessed under an overhanging roof supported by regularly spaced metal columns. The interior reception lobby features terrazzo tile floors and marble walls.

[15] Ibid., 6.
[16] PASNY, *Construction Cost Report, LPGP Structure, Work Order 5211,* 6.

4) Lewiston Reservoir (1958-1961) – 1 contributing structure

Photographs 1 and 12

Contract No.: N-8 Award Date: May 10, 1958 Completion Date: January 5, 1961
Engineer/Architect: Uhl, Hall & Rich Contractor: Channel Constructors, Peter Kiewitt Sons, Perini Corp, Morrison-Knudsen Co., and Walsh Construction Co.

The Lewiston Reservoir is located in the Town of Lewiston at the northeast end of the NPP Historic District. The reservoir was built to hold water diverted from the Niagara River during off-peak hours for the purpose of increasing generation capabilities during periods of peak demand. The reservoir encompasses an area of approximately 1,900 acres (69,500-acre-feet of usable water) and is completely enclosed by a 6.5-mile-long dike that ties into the north and south core walls of the Lewiston Pump Generating Plant located at the southwest corner of the reservoir.[17] (The reservoir is shown in Photographs 1 and 12.)

The rock-fill, impervious-core dike averages 55 feet in height above natural ground level and in cross section is 260 feet wide at the base and 40 feet wide at the top.[18] The downstream portion of the impervious core and rock fill rests on bedrock and the upstream portion is constructed on the natural earth mantle over bedrock. The embankment tie-in to the Lewiston Pump Generating Plant is accomplished by wrapping the impervious core of the embankment around the concrete core walls extending from both sides of the plant. Filters are constructed adjacent to the slopes of the impervious core for stability against erosion of the soil by internal pore water under pressure, percolation, or wave action. A grout curtain in the rock beneath the center of the earth core was built in order to decrease permeability of the stratified and jointed bedrock. Ground water observation wells were drilled near the downstream toe of the dike and other points around the perimeter so that ground water levels at the outside toe could be monitored.

5) Robert Moses Niagara Power Plant (1958-1962) – 1 contributing structure

Components:
a) Robert Moses Niagara Power Plant
b) Control Building
c) Erection Bay
d) Screen Well Building
e) Fishing Pier and Fish Cleaning Station

Photographs 13-21/Historic Photographs 6-8

Contract No.: N-3 (General Contract)
Award Date: February 3, 1958 Completion Date: July 1, 1962
Engineer/Architect: Uhl, Hall & Rich Contractor: Merritt, Chapman & Scott

[17] PASNY, *Construction Cost Report, Niagara Power Project, Pumped Storage Reservoir, Work Order 5221,* 1.
[18] PASNY, *Design Analysis for Embankment for Tuscarora Reservoir,* April 1959, page 1-1. See also, Uhl, Hall & Rich, *Niagara Power Project: Data- Statistics,* 1965, 19.

Contract No.: NP-3 (Hydraulic Turbines)
Award Date: January 3, 1958 Completion Date: July 1, 1962
Engineer/Architect: Uhl, Hall & Rich Contractor: Baldwin-Lima-Hamilton Corp. and Newport News Shipbuilding and Drydock Co.

Contract No.: NP-4 (Generators)
Award Date: February 3, 1958 Completion Date: April 6, 1962
Engineer/Architect: Uhl, Hall & Rich Contractor: Westinghouse Electric Corp.

Contract No.: NP-22 (Penstocks)
Award Date: September 22, 1958 Completion Date: December 1, 1962
Engineer/Architect: Uhl, Hall & Rich Contractor: Chicago Bridge and Iron Co.

Contract No.: NP-5 (Transformers)
Award Date: February 4, 1958 Completion Date: July 1, 1962
Engineer/Architect: Uhl, Hall & Rich Contractor: Ferranti Electric Co.

The Robert Moses Niagara Power Plant stands in the Town of Lewiston at the northwestern edge of the NPP Historic District and directly faces the Niagara River. It is located approximately 4.5 miles downriver from Niagara Falls, and slightly upstream from the Sir Adam Beck Power Plant that faces it across the river in Ontario, Canada. The power plant was completed in 1962 by general contractors Merritt, Chapman & Scott Corp. to the design of the NPP engineers Uhl, Hall & Rich. The structure measures 1,933 feet long and 389 feet high from the lowest point of the foundation to the top of the intake deck, the equivalent of 38 stories. The power plant and dam are 580 feet wide from the face of the intake to the final outlet in the river.[19] A section of the four-lane (since reduced to two lanes) Niagara Scenic Parkway and four-lane Lewiston Road run the north-south length of the dam structure but are considered non-contributing features NPP Historic District. (The plant is shown in Photographs 13-21 and in Historic Photographs 6-8 in the Additional Materials section.)

The power plant consists of a water intake structure at the top of the Niagara Gorge and generating equipment at the base of the structure which are connected by 13 penstocks. The intake structure is gravity-based, nearly 1,100 feet long and built of steel-reinforced concrete. At the south end are two abutment blocks housing cooling water screen wells and intake gate repair facilities. Each of the 13 intake block entrances is divided into two water passages by a pier. Each water passage is provided with trash racks, emergency stop logs, and intake gate slots. Each intake gate slot is provided with a vertical lift intake gate operated by a fixed gate hoist located on the deck and covered by a removable metal housing. A 900-ton traveling gantry crane (with 630-ton capacity) handles racks, gates, fixed hoists and stop logs.[20]

The 13 penstocks are welded steel, 462 feet long with a reducing elbow at both the top and bottom. The upper elbow reduces from 28.5 feet to 24 feet.[21] The lower elbow reduces from 24 feet to 21 feet. Each penstock consists of 52 individual rings welded together. The penstocks are encased in concrete, visible on the exterior, with concrete anchors at the upper and lower reducing elbows.

[19] Uhl, Hall & Rich, *Niagara Power Project Contract No. N-10 for the construction of Tuscarora Power Plant in Lewiston, Niagara County, New York*, December 1958, Page 1-1.
[20] Uhl, Hall & Rich, *Data-Statistics*, 1965, 25.
[21] Uhl, Hall & Rich, *Niagara Power Project Contract No. N-10 for the construction of Tuscarora Power Plant in Lewiston, Niagara County, New York*, December 1958, Page 1-2.

The generating section of the power plant, also 1,100-feet-long, consists of 13 unit blocks each containing a Francis-type hydraulic turbine originally rated at 200,000 horse power (hp) at a 300-foot head. The generators operate at 120 rotations per minute (rpm), 3 phase, 60 cycles.[22] The power-generating equipment in the plant is largely original; however, a Life Extension and Modernization (LEM) Program completed in 2006 replaced all the turbines and included improvements to the generating equipment, resulting in a new generator rating of 273,000 hp at 300-foot head, and an increase in rated output for each generator from 150,000 kilowatts (kW) to 193,500 kW. The turbines and generators are mounted below the power plant's lower deck under removable hatch covers. Transformers are located on top of the deck, behind the generators. Connection to the Switchyard located east of the power plant and south of the power canal is via cables housed in a reinforced concrete underground power and control tunnel.

At the south end of the generator deck are the steel-framed concrete Control Building and the Erection Bay Building. The Erection Bay is a rectangular block shaped building containing a 70-foot-high, 630-ton capacity traveling gantry crane. The crane handles the rotating parts of the turbine and generator assemblies when they are removed for service. The building has a steel structural frame with an exterior of precast architectural concrete panels that feature a raised decorative motif. This raised motif was also used in the original metal panels that sheathed the two intake gate hoist structures, helping to tie the NPP structures together aesthetically. There are large vertical-lift bay doors on the north and south elevations of the building, and it is connected to the adjacent Control Building through interior doors.

Immediately west of the Erection Bay, along the shoreline of the Niagara River, is the plant's public Fishing Pier. The pier is constructed of poured concrete with steel railings and is accessed via a staircase. At the top of the staircase is the Fish Cleaning Station and Restroom, a one-story, rectangular, block-shaped building with a flat roof, overhanging cornice, precast concrete panel exterior, and a concrete slab foundation. The exterior concrete panels feature the same stamped, tapered pattern displayed on the adjacent Erection Bay.

The Control Building houses the power plant control room, offices, and miscellaneous shops and services facilities. This four-story building has a steel structural frame and is faced on the west with precast architectural concrete panels, while the north, south, and east elevations have concrete panels and, on the fourth floor, a band of aluminum pivot and louver windows. The main entrance is on the south elevation, which also features a distinctive elevated and enclosed skyway bridge that connects to the south buttress wall of the power plant structure. The design of the Control Building and skyway reflect the Miesian architectural style used in the NPP support buildings.

The Screen Well and Access Building is located immediately northeast of the entrance plaza of the Power Vista and south of the forebay/afterbay. A metal railing separates the area north of the building from the open water. It is a one-story, steel-framed building on a concrete slab, with exterior walls of precast concrete panels as seen throughout the facility. The building is six bays long and one bay wide with the bays marked by metal strips that extend out from the wall surface. The interior is lit by narrow strips of glass block windows. There is a single metal rolling overhead door on the east elevation. A double-leaf glass door flanked by single-pane, plate glass windows is on the west elevation.

As part of the beautification of the Niagara Reserve undertaken by PASNY, a section of tracks of the former New York Central Railroad (NYCRR) was rerouted away from the High Bank area overlooking the scenic Niagara Gorge. The NYCRR tracks were routed over a two-span metal railroad bridge that was affixed to the east face of the power dam. Although it was never put into use, the railroad bridge remains in place.

[22] Ibid., page 1-3.

6) Power Vista (1962-1963) – 1 contributing building

Components:
a) Entrance Plaza
b) Reception Building
c) Pedestrian Bridge
d) Observation Building
e) Lower Plaza

Photos 22-28

Contract No.: N34 Date Awarded: November 21, 1961 Completion Date: May 15, 1963
Engineer/Architect: Daniel Chait, Architect, John B. Peterkin, Consulting Architect; Uhl, Hall & Rich, Engineers; Amman & Whitney, Consulting Engineers Contractor: Wright & Kremers

The Power Vista is the principal public reception and visitor center for the NPP complex and is located at the west end of the NPP Historic District. The Miesian-style, glass, steel and concrete complex was completed in 1963 to the design of New York City architect Daniel Chait of the firm of Slater & Chait. The Power Vista has five connected components: the one-story Reception Building on the east side of the Robert Moses State Parkway and Lewiston Road; the two-story Observation Building and plaza located on the west side of the Parkway atop the south buttress of the Robert Moses Power Plant and Dam; a glass enclosed pedestrian walkway over the parkway and Lewiston Road connecting the Reception Building with the Observation Building; and two public plazas, the Entrance Plaza in front of the Reception Building and the Lower Plaza below the Observation Building. (The Power Vista is shown in Photographs 22-28.)

Public access to the Reception Building is from the adjacent paved circular drive and parking lot immediately to the east. The Entrance Plaza on the north side of the Reception Building is enclosed by a low concrete wall faced with cast-concrete, green-colored, aggregate panels and topped by a polished granite sill. On the east side of the wall is a large rectangular entrance portal faced with aggregate panels and trimmed with black-painted metal edging. On the portal's east face are the words ROBERT MOSES NIAGARA POWER PLANT, and below that, POWER AUTHORITY OF THE STATE OF NEW YORK, all in pin-mounted black metal letters. The portal is flanked on either side by a single aluminum flagpole. On the south face of the north wall is a centered stone tablet inscribed with a verse from Psalm 8:

> OH LORD, O GOD, HOW ADMIRABLE IS THY NAME IN ALL THE EARTH; THOU WHO HAST EXALTED THY MAJESTY ABOVE THE HEAVENS; WHEN I SEE THY HEAVENS, THE WORK OF THY FINGERS; THE MOON AND THE STARS WHICH THOU HAS ESTABLISHED; WHAT IS MAN THAT THOU ART MINDFUL OF HIM? THOU HAST GIVEN HIM POWER OF THE WORKS OF THY HANDS; THOU HAS PLACED ALL THINGS UNDER HIS FEET.

Running down the north-south axis of the plaza are two rows of five benches built of redwood slats bolted to granite bases. The plaza is lit by two rows of double-pendant aluminum lamps on polished aluminum poles.

The Reception Building is a one-story, flat-roofed, steel-framed building measuring approximately 66 feet by 66 feet with a public entrance on the north and a small service entrance on the southeast corner. The entrance consists of three single-leaf glass doors. The building is faced with pre-cast, green-colored, concrete aggregate panels on the east and south elevations, and has full-height glass windows with aluminum dividers on the north and west elevations. Black-painted metal is used to trim the wide overhanging eaves, to mark the bays on the east elevation, and on the building's four corners. The pedestrian overpass joins the Reception Building at its

south end atop the roof, creating a flat-roofed false story. This is screened by concrete aggregate panels on the east and west, and aggregate panels with a decorative "X"-design on the north and south elevations.

The Reception Building interior consists of a large reception area along with comfort rooms and a first-aid area. The marble wall on the west side of the reception area lists in gold-embossed letters the PASNY Trustees and executive staff at the time of construction, the architects and engineers, and highlights of the Niagara Power Project, with the text flanked on either side by the gold-embossed seals of New York State and the PASNY. The floor is a polished green terrazzo. On the south, the paired single-flight green terrazzo stairs with metal railings and polished wood handrails, flanked on either side by single-width escalators, ascend to the pedestrian overpass.

The only major alteration to the Reception Building exterior is a small ell near the southwest corner of the building containing an elevator between the pedestrian walkway and the south elevation. Added in 1992, it is faced with concrete aggregate panels similar in color and finish to those used on the rest of the building.

The 257-foot-long Pedestrian Bridge connects the Reception Building to the top deck of the Observation Building. The main structural member of the overpass is a continuous welded plate steel box truss, suspended from the two intermediate bridge supports such that the longest span of 151 feet crosses the combined widths of the north- and south-bound lanes of the Niagara Scenic Parkway and Lewiston Road.[23] The glass-enclosed passageway is in turn suspended from the main truss. Window bays are marked by black-painted metal strips. Black metal pin-mounted letters with the words POWER VISTA, POWER AUTHORITY OF THE STATE OF NEW YORK, NIAGARA POWER PROJECT run along the south elevation above the windows, while the words ENTRANCE, POWER AUTHORITY OF THE STATE OF NEW YORK, NIAGARA POWER PROJECT run along the north face. The overpass interior features green terrazzo flooring and a knee wall with aluminum grillwork.

The Observation Building is located on top of the south buttress of the Robert Moses Niagara Power Plant. It is a two-story, flat-roofed, steel-framed building measuring 90 feet wide and 120 feet long. The first story, below the parkway grade, is faced with pre-cast, green-colored, concrete aggregate panels with a decorative "X" design on a portion of the east elevation and the north elevation and full-height glass-and metal windows and doors on the three other elevations. The second story is glass-enclosed on all four elevations and has a cantilevered cast-concrete observation deck extending around the south, west, and north elevations. The deck, accessed from several exterior doors on the north, west, and south, overlooks the Niagara River, the Niagara Gorge below, and the Sir Adam Beck Power Plant in Ontario, Canada. Metal safety grillwork runs along the top of the observation deck walls. There are two metal fire/emergency stairs on the east elevation. Full-height, black-painted metal posts mark each bay along the elevations and this metal trim is also used along the building's eaves. To the south of the building is a plaza, paved with cast concrete panels, which overlooks the Niagara Gorge; it is fully enclosed by a concrete wall and is accessible only from the interior of the building.

The Observation Building interior consists of three levels. The top level has a short staircase leading from the pedestrian passageway. The stairs have been reconfigured as part of accessibility upgrades to the Power Vista. The stairs to the south have been widened, while the stairs to the north have been removed and a wheelchair ramp installed. On the staircase's west face is a bronze plaque with the name of the architect Daniel Chait and the general contractors Wright & Kremers, Inc. Facing the stairs is a polished wood wall, on which the mural by Thomas Hart Benton originally hung. This floor contains the main exhibition area and was originally open, but now contains temporary exhibits divided by partitions. On the west side of this room is the original glass-enclosed diorama designed and installed by Lester Associates. The diorama includes a terrain

[23] Uhl, Hall & Rich, *Niagara Power Project Contract N-34 for the construction of Observation Building and related facilities for the Robert Moses Niagara Power Plant,* April 20, 1962.

map and an operating cross-sectional model of the entire Niagara Power Project with video narration. The diorama was removed as part of the reinterpretation of the Power Vista. The glass enclosure was discarded. The diorama is in storage but it is hoped it will be loaned to a local cultural institution and reinstalled elsewhere in Niagara Falls.

A flight of terrazzo stairs, an escalator and an elevator installed in 2015-2016 provide access to the mezzanine-level bathrooms. The new elevator was installed as part of accessibility upgrades, which also included the removal of wheelchair lifts, repaired terrazzo floors, and a new exterior elevator designed to complement the architectural style of the Power Vista. The elevator provides access to the top floor, mezzanine, and lower floor of the Observation Building. Facing the bottom of the step/escalator on the lower level is a wall with the 7-foot-high x 20-foot wide mural *Father Hennepin at Niagara Falls* completed by artist Thomas Hart Benton in 1961 and installed in 1963.[24] The mural was moved to this location after a cleaning and restoration in 1998. The first floor, mostly covered with terrazzo floors, contains a three-bay theater, additional exhibit areas, and utility closets. The one-story, flat-roofed, glass-enclosed wing on the south houses a dining room, originally fitted out as a cafeteria, but since altered. Doors from the dining room open out to the Lower Plaza and overlook. In March 2015-2016, the entire Power Vista was reinterpreted with new exhibits.

7) Electrical Switchyard (1959-1969) – 1 contributing structure

Photograph 29

The NPP Electrical Switchyard is located on a 35-acre site in the Town of Lewiston, south of the Forebay/Afterbay and between the Lewiston Pump Generating Plant and Robert Moses Niagara Power Plant (Photograph 29). It contains all of the NPP's electrical switch and transformer equipment necessary to transmit the power generated at the project, as well as eight component buildings that house maintenance and support spaces. The eight support buildings share standardized, utilitarian designs that feature one-story rectangular plans, flat roofs, precast concrete panel exteriors, and concrete slab foundations. The exterior concrete panels are topped with painted aluminum fascia panels and are interrupted at regular intervals by metal, vertical-lift bay doors and vertical bands of glass block panels. The Power and Control Tunnel is located beneath the Switchyard and contains transmission lines that carry power from the Moses Power Plant generators to the switchyard.

***Switch Building*:** (1959-1960):
Contract No.: N-21 Drawing Dated: December 14, 1959 Year Awarded: 1959
Year Completed: 1960 Engineer/Architect: Uhl, Hall & Rich, Engineers

Maintenance Building: (1960, addition 1970)
Contract No.: N-21 Drawing Dated: December 14, 1959 Year Awarded: 1959
Year Completed: 1960 Engineer/Architect: Uhl, Hall & Rich, Engineers
1970 Additions/Alterations, Contract No.: N69

Fan Building: (1959-1960)
Contract No.: N-21 Drawing Dated: December 14, 1959 Year Awarded: 1959
Year Completed: 1960 Engineer/Architect: Uhl, Hall & Rich, Engineers

[24] "Mural is Centerpiece at Power Vista," *Niagara Gazette,* July 7, 2005, 3A.

Tunnel Access Buildings Nos. 1, 2, & 3: (1959-1960)
Contract No.: N-21 Drawing Dated: December 14, 1959 Year Awarded: 1959
Year Completed: 1960 Engineer/Architect: Uhl, Hall & Rich, Engineers

Power and Control Tunnel
Contract No.: N-3, N-7, N-10, and N-8 Year Awarded: 1959
Year Completed 1960 Engineer/Architect: Uhl, Hall & Rich, Engineers

Drum Storage Building: (1969):
Contract No.: N-67 Drawing Dated: March 7, 1969 Year Awarded: 1969
Year Completed: 1969 Engineer/Architect: Uhl, Hall & Rich, Engineers

(Contract No. N67), the Drum Storage Building, 1969, is a contributing building, as it was designed in the same International Style and using the same building materials and architectural finishes seen on the other Slater & Chait-designed buildings at the NPP.

Oil Handling Building: (1959-1960)
Contract No.: N-21 Drawing Dated: December 14, 1959 Year Awarded: 1959
Year Completed: 1960 Engineer/Architect: Uhl, Hall & Rich, Engineers

8) Administration Building (1961-1962) – 1 contributing building

Photographs 30-33

Contract No.: N-32, PA-N-23601
Award Date: April 18, 1961 Completion Date: July 1, 1962
Engineer/Architect: Daniel Chait (Slater & Chait, architects); Uhl, Hall & Rich, engineers. Contractor: Wright & Kremers, Inc.

The Administration Building is located west of the Electrical Switchyard and south of the Lewiston Reservoir in the Town of Niagara (Photographs 30-33). The building is accessed from a paved parking lot located to the south of the building and is surrounded by grass lawns on all four sides. Completed in 1962 (Contract N-32 and Specification PA-N-23601) according to drawings prepared by Daniel Chait for Uhl, Hall & Rich engineers and constructed by the general contracting firm of Wright & Kremers, the Administration Building is built in the Miesian style typical of the other Chait-designed buildings at the NPP. It is a one-story, steel-frame building measuring 50 feet by 175 feet and has glass and structural clay-tile walls. The raised basement is faced with emerald-pearl granite. The bottom of the first story is faced with polished marble, above which are plate glass windows with stainless steel mullions and sills. Narrow bronze strips or pilasters mark the window bays and the metal fascia is also covered with bronze. The building is eight bays long (east and west elevations) and three bays wide (north and south elevations). The public (main) entrance on the south has concrete steps, metal handrails, and a double-leaf glass door. A concrete ramp with metal handrail is on the west elevation. Additional entrances with steps are on the south and east elevations, and there is a below-grade entrance accessed by stairs on the south.[25]

[25] Uhl, Hall & Rich, *Niagara Contract N-32 for Construction of Administration Building for the Niagara Power Project,* March 1961.

The Administration Building interior was completed under separate contract (Specification PA-N-23601, "Interior Finish and Millwork for the Administration Building" dated October 9, 1961).[26] It consists of a reception area/lobby with a polished terrazzo floor and vertical panel walls of rosewood; rooms for security personnel; restrooms; a kitchen; and the Trustees Room, the latter located on the north side of the building. The Trustees Room is ovoid, with a center table circled by chairs and has curved walls paneled in vertical rosewood and concealed built-in cabinets and shelves. The room is lit by six tall windows on the north exterior wall.

9) Reservoir State Park (1963-1964, with 2011-2012 additions) – 1 contributing site

Photographs 34-40

Contract No.: N59 Contract Awarded: March 21, 1963 Completion Date: 1964
Engineer/Architect: Clark & Rapuano, Landscape Architects; Uhl, Hall & Rich Engineers (Comfort Station)
Contractor: Industrial Landscaping and Nursery Corporation
Comfort Station Drawings dated February 5, 1963.

Reservoir State Park is a 341-acre park located in the Towns of Niagara and Lewiston (Photographs 34-40). The park is bounded on the north by the Lewiston Reservoir, on the northeast by Old Military Road and a section of Military Road, on the south by Witmer Road, and on the west by the Niagara Expressway (I-190). The park is maintained as part of the New York State park system by the New York State Office of Parks, Recreation, and Historic Preservation.

Reservoir State Park was created atop fill produced as part of NPP construction. The original site plans by Clark & Rapuano show the park located in the wedge of land between Military and Witmer roads. The park included two clusters of facilities, including the parking area, visitors building, six tennis courts, and playground on the east end, and baseball/softball diamonds surrounding the Comfort Station (restroom) building on the west end. The two clusters were connected by curving pathways. The Comfort Station was the sole original building built in the park. It is a one-story building with a pyramidal-hip asphalt shingle roof, brick exterior, concrete slab foundation, and a square floor plan. The interior is divided into three rooms, including a women's toilet, men's toilet, and storage room. The exterior features aluminum-sash, triple-light windows with flush aluminum entrance doors and aluminum louvered vents. The entrance to the storage room on the west elevation originally had a double aluminum door but has been partially enclosed and is now a single aluminum door.

Reservoir State Park retains its original design features but received major upgrades and new facilities in 2012. At that time the baseball diamonds and playground were redesigned and upgraded. The facilities on the eastern end of the park were reconfigured, including construction of a new playground to the west of its original location; the construction of a new parking area where the playground was formerly; the conversion of four original tennis courts into field hockey and basketball courts (and two additional basketball courts were added to the area); and the replacement of the visitors center building with a new, smaller building. The facilities on the western end of the park were upgraded with new baseball diamonds, a new entrance drive and parking area, a new polygonal frame gazebo building, two new picnic shelters, and two one-story comfort stations. The area north of Military Road, which was not included in the original park plans, was also upgraded and added to the park in 2012 with a new one-story winter pavilion building that features a stone veneer exterior, metal roof, and an exterior stone chimney. Other improvements carried out at the park during 2011-2012 included building

[26] Uhl, Hall & Rich, *Specification PA-N-23601 Furnishing, Delivery and Installation of Interior Finish and Millwork for the Administration Building*, October 9, 1961, Niagara Purchase Order ANPO 13150.

a seasonal ice skating rink; replacing the existing path to the Reservoir and adding benches and interpretive signs; and planting additional landscaping.

Niagara Power Project Historic District
Name of Property

Niagara, NY
County and State

8. Statement of Significance

Applicable National Register Criteria
(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- [x] A Property is associated with events that have made a significant contribution to the broad patterns of our history.
- [ ] B Property is associated with the lives of persons significant in our past.
- [x] C Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- [ ] D Property has yielded, or is likely to yield, information important in prehistory or history.

Criteria Considerations
(Mark "x" in all the boxes that apply.)

Property is:

- [ ] A Owned by a religious institution or used for religious purposes.
- [ ] B removed from its original location.
- [ ] C a birthplace or grave.
- [ ] D a cemetery.
- [ ] E a reconstructed building, object, or structure.
- [ ] F a commemorative property.
- [ ] G less than 50 years old or achieving significance within the past 50 years.

Areas of Significance
(Enter categories from instructions.)

ENGINEERING
ARCHITECTURE
LANDSCAPE ARCHITECTURE
COMMUNITY PLANNING

Period of Significance

1958-1969

Significant Dates

1958, 1963, 1969

Significant Person
(Complete only if Criterion B is marked above.)

N/A

Cultural Affiliation

N/A

Architect/Builder

Slater & Chait (architects); Peterkin, John B. (consulting architect); Clark & Rapuano (landscape architects)
Uhl, Hall & Rich (engineers);
Benton, Thomas Hart (mural artist)

Period of Significance (justification) The period of significance for the Niagara Power Project (NPP) Historic District extends from 1958, when construction on the Robert Moses Power Plant commenced, to 1969 when the final support buildings were completed. The NPP was fully operational by 1963 when the Lewiston Reservoir and the Power Vista were completed and officially opened.

Criteria Considerations (explanation, if necessary) N/A.

Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance and applicable criteria.)

CRITERION A: STATE AND LOCAL LEVELS; 1958-1969; INDUSTRY

The Niagara Power Project (NPP) Historic District is significant under Criterion A at the state and local levels, with a period of significance between 1958 and 1969, for its association with the history of the hydroelectric power industry at Niagara Falls and western New York State. The project's development by the Power Authority of the State of New York (PASNY; now New York Power Authority or NYPA) replaced earlier, privately owned hydroelectric power plants and fundamentally changed the nature and scale of electricity production in western New York. Prior to its construction, private hydroelectric power plants such as the Schoellkopf and Edward Dean Adams plants generated and distributed power to a limited local market of industries and consumers in and around Niagara Falls. After more than 30 years of construction delays, the construction of the NPP greatly expanded the market for Niagara Falls electricity to all of New York State. This represented the culmination of decades of political leaders' efforts to create a statewide plan of affordable hydroelectric power for consumers and industries.

CRITERION C: STATE AND LOCAL LEVELS; 1958-1963; ENGINEERING, ARCHITECTURE, AND COMMUNITY PLANNING

The Niagara Power Project Historic District is significant under Criterion C on the state and local levels in the areas of engineering, architecture, landscape architecture, and community planning with a period of significance between 1958 and 1969. Under the direction of a planning and design team led by PASNY chairman Robert Moses and composed of the Boston engineering firm of Uhl, Hall & Rich, architects Daniel Chait and John B. Peterkin, and the landscape architectural firm of Clark & Rapuano, the NPP represented the first comprehensively-planned hydroelectric power plant of the Modern era in Niagara Falls. When completed in 1969, the NPP was described by PASNY as the largest hydroelectric generating facility in the Western world. The NPP buildings and their layout reflect the design precepts of Robert Moses in their monumental size and scope, the use of a large-scale campus plan imposed on the landscape, and Modern style buildings set in public plazas and framed against the massive dam structures. Drawing on his long experience with the planning of public parks throughout New York, Moses integrated the NPP with a network of parkways and recreational facilities, as well as a visitor's center. Moses also integrated artwork into the visitor's center, commissioning the mural *Father Hennepin at Niagara Falls* by renowned American artist Thomas Hart Benton.

Narrative Statement of Significance (Provide at least **one** paragraph for each area of significance.)

AREA OF SIGNIFICANCE: INDUSTRY

1. Early History of Hydroelectric Power at Niagara Falls (1759-1877)

Humanity's attempts to harness power from the mighty Niagara Falls, first to run small gristmills, then to power giant factories, and ultimately to produce and transmit electricity across New York State and the nation, have been alternately frustrated and rewarded throughout history. The first known effort was in 1759, when the Frenchman Chabert Joncaire built a small loop canal upriver from the falls to power a sawmill.[27] Between 1805 and 1816, Augustus Porter and his brother, Peter Porter, purchased this area and all of the American Falls from the State of New York and enlarged the original canal to provide hydraulic power for their gristmill and tannery. In 1825, the brothers issued "An Invitation to Eastern Capitalists and Manufacturers" to develop power at Niagara Falls.[28] In 1826, the upper raceway was extended and in 1845 the lower raceway near Goat Island was constructed; the latter was used by a paper mill and nail manufactory among other enterprises.[29] In 1847, Augustus Porter developed a plan for a hydraulic canal running from Port Day, above the rapids of the falls, to the edge of the Niagara Gorge downstream where power would be available from the fall of water from the "High Bank" about 200 feet to the river below.[30]

In 1853, Caleb Woodhull, Walter Bryant and their associates chartered the Niagara Falls Hydraulic Company to construct a 70-foot-wide and 10-foot-deep hydraulic canal, along with gates, locks, and a reservoir, to generate water power for industrial and manufacturing use. Due to a lack of sustained funding, the canal was sold in 1861 to Horace Day, who completed it to a 35-foot width and 8-foot depth. Attempts throughout most of the nineteenth century to divert the water of the falls, however, never managed to harness more than a fraction of its potential water power. The Gaskill Flouring Mill, for example, located on the High Bank above the Niagara Gorge, reputedly used only 25 feet of the 250 feet of available head.[31] Always lacking financing, Niagara Falls Hydraulic Company had only completed a one-mile length of canal by 1877.

2. Private Development of Hydroelectric Power at Niagara Falls (1877-1917)

In 1877, the intake inlet on the Niagara River, the unfinished hydraulic canal, and about 45 acres of land on the High Bank were purchased by Buffalo industrialist Jacob F. Schoellkopf for $76,000.[32] Within a year, his newly formed Niagara Falls Canal Company had completed the hydraulic canal and was selling lots along the canal and on the High Bank for mill or factory sites. In 1878, Schoellkopf and his son, Arthur, organized the Niagara Falls Hydraulic Power & Manufacturing Company (NFHP&M) and built a large flour mill between the canal and the High Bank cliff. By 1882, seven additional industries, including paper and woodworking mills, and a silver plating factory had located at the High Bank site and were utilizing the water power supplied by the newly enlarged hydraulic canal.

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[27] Edward Dean Adams, *Niagara Power: History of the Niagara Falls Power Company, 1886-1918,* Volume 1 (History and Power Projects (Niagara Falls, N.Y.: 1927), 41.
[28] Ibid., 46.
[29] Ibid., 47.
[30] John L. Harper and J.A. Johnson, "Hydroelectric Development at Niagara Falls," *Transactions of the American Institute of Electrical Engineers,* Vol. XL 10 (New York, NY: January 1921), 882.
[31] Adams, 71.
[32] Diane Glynn, *The Schoellkopfs 1842-1994: A Family History* (Niagara Falls: Memorial Medical Center Foundation, 1995), 6-7.

Niagara Falls would have remained a prosperous manufacturing town, no different from countless other towns and cities in the United States, dependent on their waterside location to power factories and mills, had not Schoellkopf decided in 1881 to build his first hydroelectric generating station at Niagara Falls. Eventually known as Schoellkopf Station No. 1, the plant primarily produced direct current (DC) electricity to power a paper mill, several small factories and stores, the *Niagara Falls Gazette* offices, and an arc light machine owned by the Brush Electric Light and Power Company that provided electrical street lighting to the village. This use of hydroelectric power further converted into electric lighting was the first public distribution of electricity at Niagara Falls, and it stimulated the development of electrical power elsewhere in western New York State.[33]

The NFHP&M supplied electricity to manufacturers within a one-mile radius since that was the effective limitation of the transmission of direct current. The generators installed were of various makes, depending upon the industries to which they were supplying power. Alternating current (AC) electricity, unlike direct current, can be transformed from one potential to another, to a higher or lower electromotive force, through the means of static transformers and ultimately became more popular. As AC-driven machinery became more commonplace in industry, the demand increased and the NFHP&M added generators to produce alternating current.

In 1896, the NFHP&M constructed its Power Station No. 2 at the water's edge within the Niagara Gorge in order to use the full available head of 210 feet. The first section of full-head development proved so successful that two more stone-and-steel sections of the Schoellkopf plant were built.[34] The equipment consisted of 15 turbines and in respect to their power capacity the penstocks were the largest in the world at the time of construction. After the construction of Power Station No. 2, the Pittsburgh Reduction Company (later ALCOA) entered into a 26-year contract with the NFHP&M. Subsequent similar contracts with other industries shortly followed, and the power company began plans for constructing a much larger and more efficient power station.[35]

The Schoellkopf operations soon faced competition in developing the power potential of Niagara Falls. The Niagara Falls Power Company (NFPC) was located upriver from Niagara Falls and produced the electricity used not only to power industry in the immediate vicinity of the falls but also to be transmitted to Buffalo and beyond. Its plant, known as the "Adams Plant," was named for Edward Dean Adams, president of the Cataract Construction Company and a director of the NFPC.[36]

In October 1893, George Westinghouse was awarded the contract to build the generators for the NFPC's Adams Plant.[37] Transmission of AC electricity from Niagara Falls to Buffalo began in 1896. Unlike the NFHP&M, which supplied its customers directly, the NFPC was designed to be a centralized producer of power only. Other companies would be responsible for transmission and distribution of that power. The development of AC transformers by the NFPC was key to the transmission of hydroelectric power over long distances in western New York State.

The NFPC supplied AC electricity through the use of ten Westinghouse AC generators of 5,000 h.p. capacity with 430 cubic feet of water turning the turbines at 250 rpm. While a second power station would eventually be constructed across the canal, it was the Adams Plant that produced most of the AC electricity in the western

[33] Adams, 80.
[34] Ibid., 81.
[35] Michael B. Powers, "Schoellkopf Family" (Masters Thesis, University of Buffalo, 1980), 47.
[36] Ginger Strand, *Inventing Niagara: Beauty, Power and Lies* (New York: Simon & Schuster, 2003), 163.
[37] Edward T. Williams, *Niagara Falls and the Industrial Age* (Niagara Falls, N.Y.: The Cataract Journal Co., 1914), 8.

New York region at the time of the Pan-American Exposition of 1901. The NFPC-produced power was transmitted to Buffalo and other areas via lines owned by the Cataract Power and Conduit Company. From there, the electricity was distributed to consumers, the largest of which were the International Railroad Company and the Buffalo General Electric Company.[38]

The effect on the future of the town (and after 1914) city of Niagara Falls was nothing short of revolutionary. By the early twentieth century, Niagara Falls boasted of being the "Power Capital of the World" and the electro-chemical center of the nation.[39] As both Niagara Falls and Buffalo became centers of manufacturing, Niagara Falls's population grew from 11,711 in 1892 to over 75,000 by 1932. Major companies such as ALCOA, Union Carbide, International Paper Company, Oneida Silver, and numerous flouring, metallurgical, and paper manufacturing companies operated along the Niagara River, drawing power from the several hydroelectric power companies that called Niagara Falls home.

At the outbreak of World War I, the power companies located at Niagara Falls were granted permission by the War Department to increase their intake of water but were also requested to merge operations in an effort to increase output by a pooling of resources. The NFHP&M (builder of the Schoellkopf plants), the Niagara Falls Power Company, and the Cliff Electrical Distributing Company were merged under the name of Niagara Falls Power Company. Several other mergers occurred in the ensuing years and by 1929, 59 power companies in western New York State had joined together to form the Niagara Hudson Power Corporation. Following internal reorganization in 1950, it became known as Niagara Mohawk Power Company.[40]

3. United States-Canada Boundary Waters Treaty of 1909

By 1906, both the United States and Canadian governments had become alarmed at the rapid construction of hydroelectric power plants and the consequent diversion of water from the Niagara Falls cataract. In 1906, Congress enacted the Burton Act, which limited the amount of water American plants could divert from the Niagara River above the falls to 15,600 cubic feet/second. The Burton Act was superseded by the "Treaty between the United States and Great Britain Relating to Boundary Waters," signed in 1909 between the United States and Great Britain (representing the Dominion of Canada). Article V of the treaty stated that:

> *It is expedient to limit the diversion of waters from the Niagara River so that the level of Lake Erie and the flow of the stream shall not be appreciably affected. It is the desire of both Parties to accomplish this object with the least possible injury to investments which have already been made in the construction of power plants on the United States side of the river under grants of authority from State of New York, and on the Canadian side of the river under licenses authorized by the Dominion of Canada and the Province of Ontario.*[41]

The specific diversion amounts were detailed in the same article, which allowed the United States to divert for power purposes a daily amount up to and at a rate of 20,000 cubic feet of water per second. Canada was allowed to divert 36,000 cubic of feet per second for industrial and power generating purposes.

[38] Strand, 208.
[39] Hamilton B. Mizer, *Niagara Falls: a City is Born, a City Matures, 1892-1932, A Selected Topical History of the City's Formative Years* (Niagara Falls: Niagara County Historical Society, 1981), 49.
[40] Harper and Johnson, 890.
[41] Federal Power Commission, Bureau of Power, *Possibilities for Redevelopment of Niagara Falls for Power,* September 1949, 7.

4. Creation of the Power Authority of the State of New York (PASNY)

In 1906, in the wake of the success of hydroelectric development at Niagara Falls, New York Governor Charles Evans Hughes introduced the first public policy on public development of New York State's hydroelectric potential. Hughes was one of a number of influential politicians at the time who considered it improper to lease water rights, at Niagara Falls and elsewhere, that belonged to the citizens of New York. The New York Legislature responded with the 1907 Fuller Act, which mandated that the State Water Supply Commission adopt plans for the development of hydropower under public ownership and control.

Following World War I, public sentiment shifted toward government regulation and licensing of hydroelectric power. In 1920, Congress passed the Federal Power Act, which provided for the "development, transmission, and utilization of power, and the fostering of other beneficial public uses on waterways subject to Federal jurisdiction." The bill also directed the Federal Power Commission (FPC) to issue licenses to public or private power corporations "for terms limited to 50 years and upon conditions which protect the public interest in the water resources involved."[42] Under the Federal Power Act, the FPC was required to issue a power license to a public corporation over a private one, given the choice between the two. As a result, New York and other states had to adopt their own legislation in order to retain any control over development on their navigable waterways.

In the 1920s Governor Alfred Smith promoted the idea of a statewide master plan for waterpower under the direction of a "New York State Power Authority." Franklin D. Roosevelt, first elected governor in 1928, spoke out forcefully for public power during his 1930 re-election campaign and related its advantages to everyday life. He promised housewives "the benefit of electric lights, and of an electric refrigerator, an electric range, electric vacuum cleaners, electric radio, dishwashers," and clothes washers. Electricity would become affordable; no longer would New Yorkers have to pay utility bills that were eight times higher than Canadians.[43] Governor Roosevelt signed into law the bill authorizing the establishment of the Power Authority of the State of New York (PASNY) on April 27, 1931, making New York the first state to authorize a public power authority. Passage of the bill, which declared that development of hydroelectric power along those parts of the St. Lawrence and Niagara Rivers within the New York boundaries shall be "in the interest of the people of this state," marked the end of a quarter century of debate on the state's public policies on hydroelectricity. It also marked the start of more than 30 years of delays before the PASNY produced its first power at the Niagara Power Project at Niagara Falls.

5. Canadian Power Development of Niagara Falls

Development by the Canadians of the power potential of the Niagara River proceeded at a different pace during this period. By 1949, there were four hydroelectric power plants along the Canadian side of the Niagara River: Sir Adam Beck Power Plant in Queenston, and the Ontario, Toronto, and Rankine developments. The first three were operated by the Hydroelectric Power Commission of Ontario (Ontario Hydro), the Rankine plant was operated by the Canadian Niagara Power Company, owned by the Niagara Falls Power Company of New York.[44] The ten-turbine Sir Adam Beck plant, the largest on the Niagara River, was completed in 1930 and consisted of an intake structure at Chippewa, and an 8.75-mile-long canal. Total installed capacity was 373,000 kw. By contrast, the Schoellkopf Plant had a capacity of 365,000 kw, with the much smaller Adams plant producing 80,000 kw. The four Canadian plants had a combined capacity of 848,000 kw, only a little less than twice as much as the two American plants at 445,000. It was generally conceded that the Canadian plants

[42] United States Senate, Committee on Public Works, 83rd Congress, Second Session, *Niagara Power Project,* August 5, 1954, 2.
[43] *PPNY*, 4-5.
[44] Federal Power Commission, Bureau of Power, *Possibilities for Redevelopment of Niagara Falls for Power,* 1949, 19.

made more efficient use of the available river head and for much of the 1930s and 1940s, Canada was a net exporter of electricity to the United States.

6. US-Canada Niagara River Water Diversion Treaty of 1950

The demand for hydroelectric power nationally and in New York State increased markedly both during and after World War II. PASNY reported that production of energy in New York State rose to record levels in 1948, demonstrating the urgent public need for development of the Niagara River's power potential.[45] Several temporary diversion agreements between the United States and Canada were signed in 1941 and 1948 for the use of Niagara River power. Following several years of negotiations between the two countries for a more permanent solution, the Niagara River Water Diversion Treaty concerning the uses of the Niagara River was signed on February 27th 1950, and came into force October 10th 1950.[46] Its purpose was two-fold: to preserve and enhance the scenic beauty of Niagara Falls and the Niagara River, while providing for the most beneficial industrial use of the river waters.

The limitations on the amount of water diverted from the Niagara River for power generation purposes established by the 1909 treaty were replaced by the Niagara River Water Diversion Treaty. The temporary diversion agreements for power generation in 1941 and 1948 also were rescinded. The 1950 treaty took into account the differences in power usage between evening and daylight hours and also recognized the importance of maintaining water flow over Niagara Falls during the spring and summer tourist season. It stipulated that no water diversions for power generation would be allowed that would reduce the flow of water over Niagara Falls as follows:

1. No less than 100,000 cubic feet of water per second (cf/s) From April 1 to September 15 8:00 a.m. to 10:00 p.m.,
2. No less than 100,000 cubic feet of water per second (cf/s) from September 16 to October 31, 8:00 a.m. to 8:00 p.m.,
3. No less than 50,000 cubic feet of water per second (cf/s) at all other times.

The specified rates of water flow over the falls were mandatory minimums and the water specified in the treaty in excess of water reserved for scenic purposes could be diverted for power purposes.

Under the terms of the treaty, all excess waters available for water diversion for power generation are divided equally between Canada and the United States. The 1950 treaty stipulated:

> Until such time as there are facilities in the territory of one party to use its full share of the diversions of water for power purposes agreed upon in this Treaty, the other party may use the portion of that share for the use of which facilities are not available.[47]

In consenting to the 1950 treaty, the US Senate imposed the condition that "no project for redevelopment of the United States' share of such waters shall be undertaken until it is specifically authorized by Act of Congress." To that end, a study was made and reported to Congress in 1951 by the US Army Corps of Engineers respecting the most feasible plans for utilizing all of the waters available to the United States under the 1950 treaty. Detailed plans also were prepared and submitted to Congress by the FPC, PASNY, and Niagara Mohawk Power Corporation.

[45] PASNY, *Annual Report for the Year Ended December 31, 1949,* 8.
[46] PASNY, *Annual Report for the Year Ended December 31, 1950,* 3.
[47] U.S. Senate, *Report on Niagara River Power Project with Additional Views, Supplemental Views, and Minority Report,* Public Works Committee, 83rd Congress, 2nd Session (Washington, D.C.: Government Printing Office, 1954), 5.

To enable utilization of all of the United States' share of the Niagara waters by avoiding waste of the nighttime and week-end flow that would not be needed at those times for the generation of power, the studies and plans prepared by the Army Corps of Engineers and others provided for a pump-generating plant. This plant would lift waters at those times into a reservoir, to contain them until released for use – the pump-generating plant, when its motors (operating in reverse) would serve as generators – during the daytime hours when the demand for power would be highest and the diversion of waters from the river would be most restricted by the treaty.

No longer faced with the pre-existing limits on Niagara River water diversion, Ontario Hydro chairman Robert Saunders announced in December 1950 the construction of a new hydroelectric power plant (like Ontario Hydro's earlier plant at Niagara Falls, this plant was named for former Ontario Hydro board chairman Sir Adam Beck), designed to produce 700,000 hp at a cost of $157 million.[48] Work proceeded at a furious pace for the next few years and the Sir Adam Beck II plant was officially opened on August 30, 1954. The rapidity of the Canadians' building efforts and their consequent advantage over New York in providing electrical power were a source of envy by PASNY. In its 1954 report, PASNY noted that New York had had to import on average 2 billion kilowatt hours of electricity from Canada that year.[49]

7. Robert Moses and the Power Authority of the State of New York

Shortly after the announcement by Ontario Hydro of its plans to build a new power plant, PASNY Chair John Burton declared that a similarly sized hydroelectric plant would be built at Lewiston, New York, located three miles downstream from the existing Schoellkopf Plant. The Lewiston Plant would include a system of open canals to divert water from above the falls and carry it to a holding reservoir located to the east of the retaining dam and power plant. The new Lewiston power plant would supplement the power produced at the Schoellkopf plant and help meet the increased industrial and residential demand for power following the end of World War II. Although not stated, it was assumed that the aging Schoellkopf plant would eventually be moved offline.

Construction of the Lewiston power plant was delayed due to prolonged political disagreement over who would build it, the method for paying for it, and its effect on the fortunes of the existing New York power companies. Congress had attached a rider to the 1950 treaty reserving to itself approval of any project for the development of power on the Niagara River, seemingly usurping the power of both the FPC and PASNY.[50] In 1951, competing bills were introduced in both the House and the Senate giving the right to build the Lewiston facility to PASNY, the US Army Corps of Engineers, or private utilities. [51]

Robert Moses, appointed in 1954 as PASNY chair by Governor Thomas A. Dewey, firmly believed that the Lewiston Plant should be built and operated by PASNY for the public good. Writing to Sen. Edward Martin, chair of the Senate Public Works Committee in 1954, Moses stated: "The record shows that the worst possible procedure from the viewpoint of public interest would be to turn over the waters of the Niagara to the five utility companies."[52] The charge against the public development of Niagara hydroelectric power by PASNY was led by local Republican Congressman William E. Miller, aided by other powerful allies in Congress and the private utility interests in New York. They argued for continued private financing, development, and construction of the Niagara River's hydroelectric power facilities.

[48] Pierre Berton, *Niagara - A History of the Falls* (Toronto, Ontario: McClelland and Stewart, Inc., 1992), 360.
[49] PASNY, *Annual Report for Year Ended December 31, 1954,* 4.
[50] "Niagara Bill Passage Ends Seven-Year Struggle," *Niagara Falls Gazette,* August 15, 1957.
[51] U.S. Senate, *Report on Niagara River Power Project,* 1954, 2.
[52] Berton, 367.

Robert Moses (1888-1981) possessed much of the personal determination and political power necessary to push forward with PASNY's plans for hydroelectric plant development at both Niagara Falls, and PASNY's other proposed project, the St. Lawrence River project at Massena, New York. Moses was one of the most influential American urban planners of the twentieth century. During his long career, he derived much of his power and influence from his position as chair of numerous New York State and City commissions and authorities, including the New York City Parks Commission, New York State Council of Parks, the Triborough Bridge Authority and, between 1954 and 1962, PASNY. In these roles, Moses was responsible for planning numerous public parks, bridges, and highways in and around New York City between 1920 and 1968. Along with the St. Lawrence Power Project, built at nearly the same time, the Niagara Power Project represented the capstone of Moses's long public career and reflected his belief in the need for public ownership and design of power-generating facilities.[53]

8. Niagara Power Redevelopment Act of 1957

By 1955, the Canadian hydroelectric plants were supplying much of their electricity to the US at a greatly increased cost to both business and residential customers in western New York. In January, 1956 the Senate approved a bill proposed by New York Senator Herbert Lehman to authorize PASNY to finance and build the Lewiston power plant. Its fate in the House of Representatives was uncertain, however, due to the opposition of Rep. Miller and Southern conservatives. The power project was part of a long-standing debate about whether power should be controlled by public or private interests in the United States. In addition, by this period, some Niagara River power projects had become entangled with the proposed construction of the St. Lawrence Seaway, which threatened the American railroad industry. Therefore, they did not have the full support of lawmakers throughout the country.

On the afternoon of June 7, 1956, Powerhouses 3-B and 3-C of the Schoellkopf Power Plant were destroyed by a series of rockslides, killing one worker. After the collapse, 450,000 kilowatts of power were lost and the majority of the region's industrial facilities were without power for eight hours. Local factories began receiving surplus power from other eastern cities and from Ontario Hydro the next day. It was estimated that more than 10 percent of the power generating facility of New York State was destroyed as a result of the Schoellkopf plant's demise.[54] The replacement power supplied by Ontario Hydro was considerably more expensive and with plans for a new facility at Lewiston still stalled, some industries made plans to leave.[55]

The Schoellkopf Power Plant disaster was a pivotal point in the long-stalled Congressional debate over the proper development of hydroelectric power at Niagara Falls and was a major impetus for moving the Lehman bill forward toward passage. Moses and PASNY wasted no time in capitalizing on the disaster to advance their claim that the time for public ownership of hydroelectric facilities at Niagara had arrived. Speaking to the Buffalo Chamber of Commerce in 1959, Moses recounted that, "Whatever plausible argument there may have been made for licensing private utility companies by Congress to develop power on the New York side was lost when the Schoellkopf plant at Niagara collapsed. There was no answer left but our (Power) Authority." [56] Moses also applied pressure on Congress to head off Niagara Mohawk's stated plans to rebuild hydroelectric power facilities at the Schoellkopf site or elsewhere. Writing to the chairman of the House Public Works Committee, Moses wrote: "There can be no sense in rebuilding the old, inefficient plant at the old location,

[53] Berton, 353-364.
[54] The Schoellkopf site is listed on the National Register
[55] Daniel Dumych, *Images of America: Niagara Falls, Volume II,* (Charleston, SC: Arcadia Press, 1986), 77.
[56] Robert Moses, *Address by Robert A. Moses, Chair, PASNY of the State of New York and Chair of the State Council of Parks,* Luncheon of Buffalo Chamber of Commerce at Statler-Hilton Hotel, March 23, 1959, Buffalo, New York, PASNY Archives, Lewiston, NY.

where the Niagara Mohawk Power Company has paid a nominal rental to the state. The only sane answer now is a new (Power) Authority plant at Lewiston, started without delay." [57]

What differentiated Niagara Mohawk's and the other private utilities' proposals to rebuild hydroelectric power facilities at Niagara Falls from PASNY's was the latter's intention to integrate the building efforts with a general upgrading and beautification of Niagara Falls, the Niagara Reserve, and surrounding parkland.[58] Moses and PASNY deplored the fact that "more interest has been shown in the industrial aspects of the (Niagara) Frontier than in its scenic wonders, that private utility companies have exploited natural resources owned by all the people, and that the American side of the River suffers in comparison with the beautiful park developments of the Canadian side."[59] While Niagara Mohawk focused narrowly on building a replacement power plant to take advantage of the additional power allotments of the 1950 treaty, PASNY had already developed an elaborate and complex set of plans for parkland and parkway development and an upgrading of visitor facilities at the falls, in addition to the massive power station, dam, and reservoir planned at Lewiston. PASNY thus skillfully positioned itself as the protector of the scenic beauty of Niagara Falls, all the while promising to provide cheap electrical power to its residential and industrial customers.

The comprehensive transportation and parkland plans developed by Moses and PASNY are detailed in the report of September 1956: "Niagara Power Park and Arterial Development."[60] Moses believed that the current industrial conditions of the American side of Niagara Falls were unsightly and its tourist attractions overly commercialized. Tourist traffic was bogged down in the congested streets of downtown Niagara Falls, while automobile traffic to and from Canada reached a bottleneck at the Rainbow Bridge. His plan was to link Niagara Falls more strategically with the emerging US interstate system and draw more visitors to the falls, the Niagara Reservation and other nearby state parks through a system of scenic parkways and highways.

To this end, PASNY proposed construction of the Niagara Parkway, a four-lane divided highway that would link the Grand Island Bridge to the east with Niagara Falls. The parkway was to be built along the river shoreline atop excavated fill produced during construction of the Niagara Power Project. North of Niagara Falls, the parkway would link the Niagara Reservation with previously disconnected Whirlpool and Devils Hole State Parks. The Niagara Expressway, an extension of the New York State Thruway system running from Buffalo to Canada, would join the Niagara Parkway in Lewiston, just south of a new bridge linking Lewiston and Queenston, Ontario. Related to these transportation improvements were planned PASNY-financed upgrades to Goat Island, Beaver Island State Park, Buckhorn Island State Park (to be turned into a bird sanctuary), and expansion of the Niagara Reserve. To mollify local critics of the Niagara Power Project, the PASNY also proposed improvements to Hyde Park in Niagara Falls, and construction of Reservoir State Park adjacent to the Lewiston Reservoir.

Still seeing little action on the effort to move the Niagara Redevelopment Act through Congress, PASNY, in August 1956, decided to apply unilaterally to the FPC for a license to build the Lewiston Power Plant. In October 1956, PASNY embarked on preliminary surveys, engineering studies, hydraulic model tests and other studies. This put PASNY on a collision course with the private utilities who, despite the Schoellkopf disaster, still intended to build and manage any new construction at Niagara.[61]

Denied its license due to the Congressional rider attached to the 1950 treaty with Canada, PASNY appealed the FPC decision in the courts. Ultimately successful in this attempt, PASNY's position was further

[57] No author, "Moses Proposes Action at Once on Power Issue," undated newspaper article, PASNY Archives vertical file.
[58] "$750 Million Plan for Area Unveiled: Vast Power, Parks Setup is Detailed," *Niagara Falls Gazette,* September 29, 1956.
[59] PASNY, *Niagara Power Park and Arterial Developments* (New York, N.Y.: PASNY, September 28, 1956), 5.
[60] Ibid., 6.
[61] PASNY, *26th Annual Report of the Power Authority of the State of New York,* January 28,1957, 3.

strengthened when President Eisenhower signed the Niagara Redevelopment Act (Public Law 85-159) on August 21, 1957. The act 'expressly authorized and directed' the Federal Power Commission 'to issue a license to PASNY for the construction and operation of a power project with capacity to utilize all of the United States share of the water of the Niagara River permitted to be used by international agreement.' [62] A key compromise speeding passage of the bill was the agreement by Niagara Mohawk to give up its rights to divert water from the Niagara River in exchange for a promise by PASNY to sell the utility 445,000 kw produced at the Lewiston plant annually to make up for power lost as a result of the Schoellkopf disaster.

9. Opposition to the Niagara Power Project

Although the intended benefits of the Niagara Power Project were trumpeted by Moses, PASNY, and public power advocates, the project did not come about without significant social costs. Large-scale public works projects such as the Niagara Power Project inevitably result in the taking of private lands by eminent domain, significantly disrupting the lives and livelihoods of those displaced. The conduits between the river and the reservoir were originally planned as open canals, depriving the City of Niagara of much usable land, in addition to producing barriers to transportation within the city.[63] The city's objections to the open ditches eventually resulted in the construction of underground conduits, despite much grumbling by Moses over the increased costs: $204,185,000 for deep tunnels versus $98,867,000 for the open canals, according to estimates prepared by PASNY's engineers.[64] Moses also had to make financial concessions to Niagara University, which lost approximately 200 acres for construction of the power plant and the Niagara Parkway.[65]

As part of the public hearings held by the FPC on PASNY's application to construct a power generating facility at Lewiston, the FPC reviewed PASNY's request to seize privately held land by eminent domain, including approximately 1,383 acres of land owned by the Tuscarora Indian Nation and farmed by nation members.[66] [I think a few more sentences about the history of these lands] The Tuscarora lands were part of the land designated by the PASNY for construction of the Lewiston Reservoir. At these hearings, representatives of the Tuscarora objected to the taking of any of its lands upon the ground that PASNY lacked the authority to acquire them. The Tuscarora stated that the lands needed for the reservoir were part of a separate tract of 4,329 acres purchased in fee simple by the nation, with the assistance of Secretary of War Henry Dearborn, from the Holland Land Company on November 21, 1804, with the proceeds derived from the contemporaneous sale of their lands in North Carolina – from which they had removed in about the year 1775 to reside with the Oneidas in central New York.[67]

The objections of the Tuscarora notwithstanding, the FPC, on January 30, 1958, issued its order granting PASNY's license. It found that a reservoir having a usable storage capacity of 60,000 acre-feet was required to properly utilize the water resources involved. The nation filed for a rehearing, contending that the portion of its lands sought to be taken for the reservoir was part of a US-owned 'reservation,' as defined by the Federal Power Act and could not lawfully be taken for reservoir purposes. By its order of March 21, 1958, denying that application for rehearing, the FPC disagreed with this definition of a reservation and found that '(t)he best location of the reservoir would require approximately 1000 acres of land, owned by the (Tuscarora) Nation." [68]

Robert Moses and PASNY meanwhile waged a vicious public relations campaign against the Tuscarora. Writing in "An Open Letter to the Tuscarora Indian Nation," on February 11, 1958, Moses argued that the

[62] PASNY, *27th Annual Report of the Power Authority of the State of New York,* February 10, 1958, 7.
[63] Berton, 372.
[64] PASNY, *27th Annual Report,* 13.
[65] Berton, 381.
[66] Ibid., 375.
[67] "Indians Lose Battle over Land," *Niagara Falls Gazette*, March 7, 1960, A-1.
[68] Ibid., A-3.

PASNY had negotiated "in good faith" with the nation, but that "without exception, our friendly overtures have been arbitrarily rejected."[69] The offer by the PASNY of $1,000 per acre was "fair and even generous." Moses argued that the delays engendered by the nation's protests had unnecessarily driven up project costs, "causing unconscionable economic loss to the whole Frontier Community and to the entire Western part of New York State." The letter, generally contemptuous in tone, declared that "much of your land is presently uncultivated and unused (and therefore) sale of this land by you to us will impose no hardship on your community." Moses also referred to the nation's refusal to allow PASNY engineers and surveyors onto tribal lands and warned that PASNY would shortly be initiating condemnation procedures. Responding to other public comments by Moses, Tuscarora Chief Elton Greene countered that fault for the construction delays lay with Moses, who, he said, "didn't realize that the Indians' land is sacred to them."[70]

On May 16, 1958, the Tuscarora Indian Nation filed a petition for review in the Court of Appeals for the District of Columbia Circuit challenging PASNY's license. The court agreed with the nation's claim that the lands constituted a reservation and directed the FPC to suspend the license and to reopen the hearings. The court cited language in the Federal Power Act that defined reservations as: "national forests, tribal lands embraced within Indian reservations, military reservations, and other lands and interests in lands owned by the United States, and withdrawn, reserved, or withheld from private appropriation and disposal under the public land laws; also lands and interests in lands acquired and held for any public purpose; but shall not include national monuments or national parks."[71]

In July 1958, PASNY issued another appeal to the Tuscarora for the land on which, what Moses called the "Tuscarora Reservoir," would be built. Declaring that "we have unequivocally established that a majority of the members of the Tuscarora Nation want to take a reasonable position," Moses claimed that a few "recalcitrants" were guilty of blocking progress on negotiations. Moses and PASNY also offered an increase to $1,500 an acre, money to build a $250,000 community center, and to remove threatened houses to elsewhere on the Nation's lands.[72]

In late 1958, the FPC again held extensive hearings, exploring not only the matter of whether the lands were indeed a reservation as defined by the Federal Power Act, but also the possibility of locating the reservoir on other lands. On February 2, 1959, the FPC found that the use of other lands for the reservoir would result in "great delay, severe community disruption, and unreasonable expense"; that a reservoir with usable storage capacity of 60,000 acre-feet is required to utilize all of the United States' share of the water of the Niagara River, as required by the Niagara Power Act; that removal of the reservoir from the Tuscarora lands by reducing the area of the reservoir would reduce the usable storage capacity from 60,000 acre-feet to 30,000 acre-feet and result in a loss of about 300,000 kilowatts of dependable capacity.

To the disappointment of PASNY, the FPC concluded that, although other lands contiguous to their reservation might be acquired by the Tuscarora, the taking of the 1,383 acres of Tuscarora lands for the reservoir "would interfere and would be inconsistent with the purpose for which the reservation was created or acquired." That order was transmitted to the Court of Appeals which, on March 24, 1959, approved the license except insofar as it would authorize the taking of Tuscarora lands for the reservoir, and sent the case back to the FPC, instructing it to amend the license "to exclude specifically the power of the said PASNY to condemn the said lands of the Tuscarora Indians for reservoir purposes."

[69] PASNY, An Open Letter to the Tuscarora Nation, February 11, 1958, 1.
[70] "Moses to Blame for Litigation over Reservoir, Indians Say," *Niagara Falls Gazette,* September, 12, 1958, 12.
[71] Strand, 188.
[72] PASNY, *Niagara Desperately Needs More Power*, July 15, 1958.

At that point, the FPC appealed to the Supreme Court. On December 7, 1959, the Supreme Court heard arguments in *Federal Power Commission and the Power Authority of the State of New York vs. the Tuscarora Indian Nation.* On March 7, 1960, the Supreme Court decided by a margin of 7 votes to 2 in favor of the FPC and PASNY, declaring that "certain lands, purchased and owned in fee simple by the Tuscarora Indian Nation and lying adjacent to a natural power site of the Niagara River near the town of Lewiston, New York, may be taken for the storage reservoir of a hydraulic power project, upon the payment of just compensation, by the Power Authority of the State of New York under a license issued to it by the Federal Power Commission as directed by Congress in 16 U.S.C.A. §§836,836a."

In the end, the argument turned on the narrow definition of what constituted a reservation, as defined by the Federal Power Act. To Associate Justice Whittaker, writing for the 6-person majority (with Justice Brennan concurring), the question was "...may [the land] be taken for the storage reservoir of a hydroelectric power project, upon the payment of just compensation...?" The majority found that for the purposes of the law, a reservation was any land owned by the federal government of the United States, thus excluding the Tuscarora lands, which were owned in fee simple by the nation.

In its dissent, the court's minority, led by Associate Justice Hugo Black, disputed the narrow definition of a "reservation" and cited a long history of injustices done to American Indians, including the Tuscarora. He also defended the sanctity of the nation's land against the claim, frequently made by Robert Moses and others, that the land was undeveloped and therefore useless:

> *It may be hard for us to understand why these Indians cling so tenaciously to their lands and traditional tribal way of life. The record does not leave the impression that the lands of their reservation are the most fertile, the landscape the most beautiful or their homes the most splendid specimens of architecture. But this is their home – their ancestral home. There, they, their children, and their forebears were born. They, too, have their memories and their loves. Some things are worth more than money and the costs of a new enterprise.*

Black wrote that he regretted that "this Court is to be the governmental agency that breaks faith with this dependent people. Great nations, like great men, should keep their word."[73]

10. Construction of the Niagara Power Project 1958-1963

Despite the delays caused during the 1957 struggle to enact the Niagara Power Redevelopment Act and the prolonged legal battles during 1958 and 1959 to obtain its operating license, the PASNY had confidently secured a $1 million loan guarantee and had begun letting out and awarding equipment contracts and doing minor construction in late 1957. On February 3, 1958, PASNY awarded its first two construction contracts, NP-2, "Construction of Relocated Electrical Facilities in Lewiston, Niagara, and Niagara Falls," to Emerson Garden Electric and NP-3, "Construction of Lewiston Power Plant in Lewiston," to Merritt-Chapman & Scott, Corporation, the latter for the then-staggering amount of $119,399,252.[74] The contract for the plant's hydraulic turbines was awarded two days later to a partnership of the Newport News Shipbuilding and Drydock Company and the Baldwin-Lima-Hamilton Company for $23,386,645 and Contract NP-4 for the plant generators was awarded to Westinghouse Electric. With Moses and the rest of PASNY Board of Trustees in attendance, blasting began at the Niagara Power Project power plant site on March 3, 1958.[75]

[73] Strand, 188.
[74] PASNY, *Power Authority: 5 Years of Progress, Annual Report*, December 1959, 8.
[75] PASNY, *Data-Statistics,* 1964, 12.

Measuring 1,933 feet long, 580 feet wide, and 389 feet high, the power plant (renamed the Robert Moses Power Plant in 1961) was the project's most visible and spectacular feature. Over 7 million cubic yards of fill were excavated for the plant alone, with an additional 2.6 million cubic yards excavated for the forebay/afterbay. A total of 1.2 million cubic yards of concrete, 1.2 million barrels of cement, and 30,000 tons of reinforcing steel were used in its construction. Other features of the power plant include the 13 giant welded steel penstocks, 462 feet long with a reducing elbow at both the top and bottom. The contract for these, Contract NP-22, was awarded in September 22, 1958, to the Chicago Bridge & Iron Company for $13 million, with the first penstock ring installed on June 17, 1959.[76]

Contracts for the water intake structures and the four sections of the waterway conduits were awarded between May and July 1958.[77] The intake was constructed in a pumped-dry, 76-acre area behind a half-mile-long cofferdam extending 1,200 feet into the Niagara River. The intake consists of two reinforced concrete structures, 700 feet long. The two conduits each measured 46 feet wide and 66 feet high with 2.5-foot thick walls. The first arch was placed in Conduit Section 2 on August 8, 1959 and the first arches were placed in Section 1 on September 21 and in Section 3 on November 11. Excavations for the conduits were completed by late June 1960 and the last arch was placed in Section 3 conduit on September 17, 1960.[78] Rock and earth from the conduits and intake excavation were deposited along the Niagara River shore from the Grand Island Bridge to the head of the rapids above the falls and served as the base for the newly constructed Niagara Parkway (later renamed Robert Moses Parkway and eventually the Niagara Scenic Parkway).

The third major component of the NPP, the Lewiston Pump Generating Plant and Lewiston Reservoir, were built concurrently with the power plant and the conduits. Contract NP-10 was awarded September 9, 1958 for the 974-foot-long pump plant to Tuscarora Contractors, Arundel Corp., L.E. Dixon, and Hunkin-Conkey for $39,834,292.[79] Separate contracts were awarded for the pump turbines, transformers, and penstocks. Contract NP-8 for the excavation and lining of the 1,900-acre reservoir and 3,000 feet of the 4,000-foot-long forebay/afterbay was awarded May 10, 1958 to a joint venture of Channel Constructors, Pieter Kiewit & Sons, Perini Corp. and Morrison-Knudsen Co. for $31,855,000.

Working toward a February 1961 deadline for first power set by Moses and PASNY, excavation and construction continued at a furious pace throughout 1959 and 1960. With more than 3.5 million cubic yards of concrete used during construction, the Niagara Power Project's aggregate plant was the largest built to date. Located on an 81-acre site south of the Lewiston pump plant, the facility included a 26-acre settling basin. More than 1.5 million tons of resultant waste were disposed of in reservoir spoil areas. During the height of construction in mid-1960, there were six concrete batch and mixing plants operating 24 hours a day, seven days a week.[80] On January 12, 1961, the conduits and forebay were flooded and were activated for testing purposes.

Construction of the NPP and its associated arterial developments necessitated the temporary or permanent relocations of roads, railroads, transmission lines, and numerous residences. Existing transmission lines crossing the Niagara River were relocated south of the power plant, and 19 transmission lines in Niagara Falls and Lewiston also were relocated.[81] Major rerouting of streets and roadways occurred throughout the project area. Lewiston Road was permanently diverted to pass over the power plant dam, while Military Road was similarly diverted to pass over the concrete dam separating the Lewiston Reservoir from the forebay/afterbay.

[76] Ibid., 1-2, 14.
[77] PASNY, *Data-Statistics,* 1959, 11.
[78] PASNY, *Data-Statistics,* 1964, 10.
[79] Ibid., 13.
[80] PASNY, *Data-Statistics,* 1959, 18.
[81] Ibid., 19.

The major transportation improvements planned both separately and in conjunction with the NPP also followed an accelerated construction schedule during most of 1959 and 1960. The most important of these was the Niagara (Niagara Scenic) Parkway from the Grand Island Bridge to the head of the upper rapids above the Falls. From the Rainbow Bridge its route ran along the Niagara Gorge, uniting several small parks in a continuous ribbon before passing over the power plant dam and ending at the new Lewiston-Queenston Bridge and the Niagara Expressway. The latter roadway, a part of the New York State Thruway system, was designed to run between the Grand Island Bridge and the Lewiston-Queenston Bridge, providing a direct link between Buffalo and the US-Canadian border that bypassed Niagara Falls. The Lewiston-Queenston Bridge, opened for traffic in May 1962 and, officially dedicated later that year on November 17, was designed to relieve traffic congestion on the existing Rainbow and Whirlpool Rapids bridges. The so-called American Rapids Bridge between the shoreline and Goat Island was another component of the parkway plan. With a span of 450 feet, it was the longest plate girder bridge in the United States when completed. Both the bridge and the southern half of the Niagara Parkway were dedicated on June 21, 1960.[82]

On February 10, 1961, at a ceremony held in the gymnasium at Niagara University, and attended by Governor Nelson A. Rockefeller, New York's U.S. Senators Jacob Javits and Kenneth Keating, along with other local dignitaries, the ceremonial switch was pulled for the inauguration of "First Power" at the Robert Moses Power Plant. The audience heard recorded congratulatory messages from President John F. Kennedy and former Presidents Eisenhower, Truman, and Hoover. The Buffalo Philharmonic played a piece especially commissioned by Moses for the ceremony, "Niagara Falls Suite," by composer Ferde Groffe.[83]

Construction on the main NPP facilities continued throughout most of 1961, and by the end of the year ten units capable of generating 1.75 million kw had been installed. At the Lewiston Pump Generating Plant three units were in operation. Also by the end of 1961, nearly all of the concrete had been placed and the massive concrete aggregate and mixing plants were dismantled. A contract also was awarded for construction of the Power Vista, and final grading over the conduits and Hyde Park were completed.

A historic milestone was reached on October 3, 1961, when operations ceased at what was left of Niagara Mohawk's Schoellkopf Power Station No. 3, as PASNY was already able to use the United States' entire share of the water not set aside by the 1950 treaty.[84] Prior to completion of the NPP, PASNY succeeded in selling all the power to be produced. Customers included Niagara Mohawk, the State of Vermont, old and new industries located near the sites of the plant, municipalities, rural cooperatives, and private utility companies.

On October 30, 1962, the twenty-fifth and last unit was brought under production. This brought the NPP to its total capacity of 2.2 million kw, which, added to the 940,000 kw at the St. Lawrence project, made the PASNY's capacity 3.13 million kw. That same month, PASNY constructed a 345 kV tie-line between Niagara Falls and Utica, New York. This was in addition to the high-voltage line constructed between Niagara Falls and Rochester, and between the NPP and the newly completed power plant at Massena, thus creating the power grid for both western and central New York State.[85]

On July 19, 1963, the Niagara Power Project Power Vista was dedicated. The building was lavishly fitted with a reception area, trustees meeting room, a public cafeteria and dining room, and a large-scale diorama of the NPP. Above the reception desk in the observation building, the mural *Father Hennepin at Niagara Falls,* painted by renowned American artist Thomas Hart Benton, greeted visitors to the facility. The work,

[82] Ibid., 24.
[83] PASNY, "First Power: February 10, 1961"
[84] PASNY, *Annual Report*, February 19, 1962, 3.
[85] PASNY, *Annual Report,* February 27, 1961, 17.

commissioned by PASNY for $35,000, was completed after Benton had painted two mural panels depicting the arrival of French explorer Jacques Cartier for the administration building at PASNY's St. Lawrence Project in Massena.[86]The opening of this observation and exhibition facility at the south end of the Robert Moses Power Plant, with its balcony located 350 feet above the Niagara Waters, marked the completion of all major structures planned for the NPP.

AREAS OF SIGNIFICANCE: ENGINEERING, ARCHITECTURE, LANDSCAPE ARCHITECTURE, AND COMMUNITY PLANNING

The Niagara Power Project is significant as both a work of engineering on a massive scale and as an example of the architectural and community planning ideals common in the United States during the mid-twentieth century. Nationally prominent urban planner and PASNY chair Robert A. Moses, along with other important planners, engineers, and architects of the period were involved in its conceptualization during the 1950s and its execution between 1958 and 1963. A hallmark of any Moses-influenced enterprise is the prominence given to recreation and landscaping in the total design. As a result, recreation, landscape design, and transportation, combine with the engineering and architectural components of the Niagara Power Project to create a total environment on a vast scale. The Niagara Power Project embodies the mid-twentieth century ideal in which modern technology and nature are combined, utilized to their fullest extent, and made fully accessible to the public.

1. Engineering –

The design and scale of the NPP's engineering features were largely determined by the diversion provisions of the 1950 treaty between the US and Canada. This treaty served the dual purpose of protecting the flow of water over the Niagara Falls, while increasing the amount available for diversion for power purposes. The treaty-specified diversion amounts took into account the differences in power usage between evening and daylight hours, with different amounts also specified according to the seasons of the year. In addition, the treaty apportioned the diverted amount equally between the two nations, although to encourage efficiency, the unused amount of water allocated to one nation could be assumed by the other nation until such time as full capacity was reached by both countries.[87]

In the early 1950s, the studies and plans prepared separately by the Army Corps of Engineers and PASNY provided for a pump generating plant that would enable optimum utilization of the United States' share of the Niagara waters by avoiding waste of the nighttime and week-end flow not needed at those times for the generation of power. Such a plant would lift waters during the low-usage times into a reservoir, to contain them until released for use through the pump-generating plant, when its motors (operating in reverse) would serve as generators – during the daytime hours when the demand for power would be highest and the diversion of waters from the river would be most restricted by the treaty.

PASNY's resident engineers, the Boston firm of Uhl, Hall & Rich (UHR), faced the double challenge of designing a power plant capable of producing the maximum amount of power possible based on the optimal water amount allowed under the 1950 treaty, while designing an equally large reservoir to hold the retained water and a powerful pump generating facility to pump water between the two facilities. Their design for the NPP, revealed in large-scale format in the 1954 PASNY annual report, did not disappoint on either score.

[86] Ibid., 18.
[87] United States Senate, Committee on Public Works, 83rd Congress, Second Session, *Niagara Power Project,* August 5, 1954, 5.

The design for the power plant and dam was on a massive scale: the structure measures 1,933 feet long and 389 feet high from the lowest point of the foundation to the top of the intake deck, the equivalent of 38 stories. The power plant and dam are 580 feet wide from the face of the intake to the final outlet in the river.[88] The power plant design includes an intake structure and generating equipment at the base of the structure, the two features connected by 13 penstocks. The intake structure is gravity-based, nearly 1,100 feet long and built of steel-reinforced concrete. A 90-ton capacity traveling gantry crane handles racks, gates, fixed hoists and stop logs. The 13 penstocks are welded steel, 462 feet long with a reducing elbow at both the top and bottom.

A 71-acre, nearly mile-long forebay/afterbay connects the power plant to the pump generating plant and reservoir. For the pump generating facility, UHR engineers produced a design for a reinforced concrete gravity-based structure measuring 974 feet long, 160 feet high, and 240 feet wide. The intake and transformer structure consists of twelve 68-foot-long unit blocks. A 65-ton traveling gantry on the intake deck handles the trash racks and stop-logs.[89] Twelve penstocks, one for each unit, convey water from the adjacent reservoir to the pump turbines and in reverse. Each penstock, approximately 170 feet long, tapers from 24 feet in diameter at the upper end to 18 feet in diameter at the lower end. The reversible pump generating installation within the plant consists of 12 motor-generators directly connected to 12 hydraulic pump turbines. A 150-ton gantry traveling crane on the lower deck can handle the motor generator and pump/turbine assemblies, trash racks, and gates.

The NPP reservoir, although reduced from its original design, still encompasses an area of approximately 1,900 acres, (69,500 acre-feet of usable water) and is completely enclosed by a 6.5-mile long dike which ties into the north and south core walls of the Lewiston Pump Generating Plant located at the southwest corner of the reservoir.[90] The rock-fill, impervious core embankment encircling the reservoir averages 55 feet in height above natural ground level and in cross section is 260 feet wide at the base and 40 feet wide at the top.[91]

Logistical challenges were also presented by the great distance (4.5 miles) between the proposed location of the water intakes above the falls and the location of the power plant and reservoir facilities. Land immediately downriver of the falls had been placed off-limits for industrial use since 1885, when the Niagara Reservation was established. Niagara Mohawk's Schoellkopf Plant No. 3 was located less than a mile downriver, making it necessary to locate the new plant farther downstream of the falls.

Originally, a series of open canals was proposed to connect the water intakes and the reservoir/pump generating facility. Because of objections from the City of Niagara Falls, UHR instead designed two concrete underground water conduits extending in a generally northerly direction from the two NPP intake structures to the southwest corner of the Lewiston Reservoir, a distance of nearly 4.5 miles. They pass entirely underground through the City of Niagara Falls, Town of Niagara, and the Town of Lewiston and were designed to be built in four stages, due to their length and the complexity of their construction. Eventually, nearly 13 million cubic yards of bedrock and earth was blasted and excavated to a depth ranging from 72 feet near the water intakes to 137 feet at the forebay/afterbay.[92] The bedrock removed during excavation was placed along the Niagara River shoreline to facilitate construction of the Niagara Parkway (later Robert Moses State Parkway and the Niagara Scenic Parkway). Each of the completed reinforced concrete structures measures 46 feet wide by

[88] Uhl, Hall & Rich. *Niagara Power Project Contract No. N-10 for the construction of Tuscarora Power Plant in Lewiston, Niagara County, New York,* December 1958, 1.
[89] Ibid., 6.
[90] PASNY, *Construction Cost Report, Niagara Power Project, Pumped Storage Reservoir, Work Order 5221*, 1.
[91] PASNY, *Design Analysis for Embankment for Tuscarora Reservoir,* April 1959, 1.
[92] Ibid., 5.

66.5 feet high to the crown of a three-hinged arched roof. Walls and floors are 2.5-feet thick, with the arch supports nearly 7 feet thick. Combined capacity of the conduits is 83,000 cubic feet of water per second.[93]

2. Architecture, Landscape Architecture, and Community Planning

Considerations of architectural design, landscape setting, transportation, and community planning all played prominent roles in the overall design of the NPP, due largely to the strongly held design principles and previous professional experience of its driving force, Robert A. Moses (1888-1981). Moses graduated from Yale University and Wadham College, Oxford, and earned a Ph.D. in political science from Columbia University. First attracted to New York City reform politics, Moses went on to win appointments as New York City Park Commissioner, City Construction Coordinator, and member of the City Planning Commission. With these and other appointments Moses built an unparalleled career as a city planner who built public beaches, parks, apartment buildings, bridges, and roads throughout the city.[94] Moses's opinions on politics, society, and the role of government affected the choice, location, and design of his public works projects. Disenchanted with both railroads and public transportation in general, and an admirer of the personal freedom and mobility of automobile travel, Moses was a master of parkway and highway planning in and around New York City in the 1920s, 1930s and 1940s. By the time that he took over PASNY, Moses had already helped to plan the construction of the Interborough, Cross Island, and Meadowbrook Parkways, the Southern and Northern State Parkways, and the Van Wyck Expressway, as well as the Queens Midtown and the Brooklyn Battery tunnels and the Marine Parkway, Triborough, and Whitestone bridges.

During that same period, Moses directed the planning of numerous New York City parks, as well as state parks in Long Island's Nassau and Suffolk counties, including Heckscher, Hither Hills, Montauk Point, Wildwood, Valley Stream, Sunken Meadow, Belmont Lake, and especially Jones Beach.[95] Moses was the chair of the Long Island State Park Commission for nearly forty years and was first chair of the State Council of Parks. In his capacity as New York City Parks Commissioner, Moses also was influential in the development and design of the 1939 New York World's Fair. As chair of the State Council of Parks, Moses was familiar with the numerous state parks established on the Niagara Frontier during the 1920s and 1930s: Whirlpool, Devils Hole, Lewiston Heights, Beaver Island and Buckhorn Island State Parks. Moses was *not* a designer; he designed no parkways or parks himself; however, he was heavily engaged in planning them; he engaged experts in the fields of architecture and design; and he was, above all else, a master at finding funding for projects he favored.

His experience engaging with experts in the field of state park planning convinced him of the necessary interrelationship of architecture, landscape architecture, and transportation design and the need for professionals from these disciplines to work together under his overall direction. In 1954, during his first year as PASNY chairman, he appointed a panel of three eminent architects to advise him on the architectural features of PASNY's St. Lawrence power project; the engineering report released in August 1954 noted that the panel was then reviewing the treatment of the powerhouse, dams and related structures. The panel members for the St. Lawrence project included architects John B. Peterkin, Louis Skidmore, and Wallace K. Harrison.[96] Peterkin was an Englishman who had worked while he was younger for George B. Post and Paul Cret. He remained as an advisor to Moses throughout the St. Lawrence and Niagara Power Projects, serving officially as consulting architect. In practice in Manhattan for most of his career, Peterkin may have been known to Moses for his design of the East Side Airlines Terminal across from Grand Central Terminal in 1941 and, in association with the firm of Harrison & Abramovitz, the design of the Socony-Mobil Company building in

[93] Ibid., 6.
[94] Robert Caro, *The Power Broker: Robert Moses and the Fall of New York* (New York: Alfred A. Knopf, 1974), 5-7.
[95] Joann P. Krieg, *Robert Moses, Single-Minded Genius* (Interlaken, N.Y.: Heart of the Lakes, 1989), 11-12.
[96] PASNY, *Report of the Power Authority for the Year Ended December 31, 1954.*

Manhattan. In association with the firm of Leon and Lionel Levy, he also designed the now-razed New York Coliseum (1954), site of the PASNY offices.[97]

Moses, who, in 1954, was appointed PASNY chair by New York Governor Thomas Dewey, spearheaded the Federal licensing of the NPP and guided its overall design from conception to completion. Along with Peterkin, Moses entrusted the design of both the St. Lawrence and NPP to the New York City architectural firm of Slater & Chait, with partner Daniel Chait in charge of most of the designs at the NPP. The firm had achieved some success in the 1950s with the design of a motel in the Catskills (1954), the renovation of a former school into a cigar factory (1954) and the Rotron Manufacturing Company building in Woodstock, New York (1955). The design commissions at both St. Lawrence and NPP were undoubtedly great boons to the firm's reputation, although curiously neither project received much mention in the architectural periodicals of the day. The firm continued its association with Moses through the early 1960s, with Chait given the commission to re-design the New York City Pavilion (now the Queens Museum of Art) at the 1964 World's Fair, of which Moses was chair.[98]

The designs for the NPP buildings designed by Slater & Chait closely resembled those designed for the St. Lawrence Project a few years earlier. They owed a debt to the Modernist movement in their use of clean, unbroken lines, their lack of either historical references or historicism, and the expressive use of basic man-made building materials like concrete, stone, glass, and metal (steel, bronze, and aluminum). The two 100-foot-high intake tower structures located at the southern end of the project were simply and efficiently designed and featured a skin of stainless steel panels with a raised design. The sans serif lettering on the north elevations was likewise simple, clean, and crisp. The Administration Building was a rectangular box with a raised basement and walls faced with concrete panels, with each bay marked by bronze or metal strips, and a metal fascia running around the building's perimeter. Even small buildings such as the Screen Well and Access Building located near the forebay carried the same basic architectural themes forward.

The most architecturally significant building at the NPP and the one on which both Chait and Moses lavished much of their attention was the Power Vista. Conceived from the beginning as a principal tourist attraction, as well as the public face of PASNY, the Power Vista consists of three sections: the one-story Reception Building on the east side of the Niagara Scenic Parkway and Lewiston Road; the two-story Observation Building and plaza located on the west side of the parkway and atop the south buttress of the Robert Moses Power Plant and Dam; and a glass enclosed pedestrian walkway over the parkway and Lewiston Road connecting the Reception Building with the Observation Building.

The influence of Modernist architect Ludwig Mies van der Rohe is clearly apparent in the design of the Power Vista. Migrating from Germany to the United States in 1938, Mies developed his architectural aesthetic out of the earlier International style by using a building's steel frame, or skeleton construction, to create an overall design discipline. His buildings and those influenced by him display rectangular forms of strict regularity and precision in a modular pattern established by the steel frame. Glass walls with sections of unfinished concrete, flat concrete slab roofs, and an overall symmetry characterize Miesian architecture. Ground-story walls are set back behind outer piers and the grid of the frame is frankly expressed. In tall buildings, verticality is expressed with exterior I-beams that rise through the upper stories.[99]

The Observation Building at the Power Vista was lavishly fitted with a reception area, a public cafeteria and dining room, and a large-scale diorama of the NPP. Above the reception desk in the Observation Building, *Father Hennepin at Niagara Falls* a mural painted by American artist Thomas Hart Benton, greeted visitors to the facility. The work, commissioned by PASNY for $35,000, was completed after Benton had painted two

[97] New York City Landmarks Preservation Commission, "Socony-Mobil Building," Designation List 341, LP-2117, February 25, 2003.
[98] Nicholas Hirshon, "Queens Museum of Art 'will respect past in an up-to-date Institution'," *New York Daily News*, April 14, 2008.
[99] Whiffen, 255.

mural panels depicting the arrival of French explorer Jacques Cartier at the Administration Building at PASNY's St. Lawrence Project. The other important interior feature of the Observation Building was the diorama (recently removed and due to be relocated to a site in the City of Niagara Falls) showing the extent of the NPP and its effect on the surrounding landscape.

The landscaping of the NPP facilities, including the restyling of the landscape to erase the scars from the excavation work was entrusted to the New York City landscape architecture firm of Clarke & Rapuano. Gilmore D. Clarke and Michael Rapuano had their offices at 145 East 32nd Street in New York City; the offices of PASNY's consulting engineers and landscape architects were thus within one block of those of the PASNY's architect. Gilmore Clarke was a graduate of Cornell University, former superintendent of construction for the Bronx River Parkway, and landscape architect for the Westchester County Park Commission; he was a nationally recognized leader in parkway design. His partner in most of the Moses-era projects was Michael Rapuano, a fellow Cornell graduate who had completed three years of postgraduate study at the American Academy in Rome. [100]

The two men formed Clarke & Rapuano, consulting engineers and landscape architects, in the 1930s. Like Slater & Chait, the Clarke & Rapuano firm also worked as consultants for PASNY's St. Lawrence Power Project a few years earlier and continued their association with Moses into the 1960s as designers of several parks associated with the 1964 New York World's Fair.[101]

Landscape design was an integral part of the overall redesign and beautification of the Niagara Frontier as envisioned by Moses. With the exception of the Niagara Reservation established in 1885, the Niagara Falls area was almost wholly given over to industrial use after the construction of the first hydroelectric plants there in the late 1890s. Large manufacturing plants, including metallurgical and hydro-chemical factories, crowded the so-called High Bank, the cliffs above the Niagara Gorge located below the falls. The Schoellkopf Power Station No. 3 was built in several stages between the 1890s and the 1920s on both the high bank and along the riverfront. A commission headed by then-Secretary of War William Howard Taft brought about several cosmetic changes to this area, but the high bank, as well as the land approaches to the City of Niagara Falls, remained overwhelmingly industrial in character for the first half of the twentieth century.

Beginning in the 1930s, several small parks in the Niagara Frontier were added to the state park system. These included Whirlpool, Devil's Hole, Lewiston Heights, and Buckhorn Island state parks. Beaver Island State Park, located on the south side of Grand Island, was established in 1939. In 1948, the federal government turned Fort Niagara over to the state. These parks formed the basis for a regional park system characterized by the "scenic splendor and historic landmarks of the American side of Niagara Falls."[102] In press releases and brochures announcing the NPP and its related recreational aspects, Moses and PASNY deplored the fact that "more interest has been shown in the industrial aspects of the (Niagara) Frontier than in its scenic wonders, that private utility companies have exploited natural resources owned by all the people, and that the American side of the River suffers in comparison with the beautiful park developments of the Canadian side."[103]

On the Canadian side, the Ontario provincial government had set aside large areas along the Niagara River for parkland and recreational use since the early 1900s. Such attractions as the Paradise and Locust Grove Parks, the Floral Clock, and the Sir Harry Oakes Gardens contrasted with the view to the American side,

[100] Thomas W. Ennis, "Gilmore D. Clarke, 90, is Dead; Designed Major Public Works" *New York Times,* August 10, 1982.
[101] Robert W. Rydell and Laura Burd Schiavo, eds., *Designing Tomorrow, America's Worlds Fairs of the 1930s* (New Haven, CT: Yale University Press, 2011), 134-135.
[102] PASNY, *Niagara Power Park and Arterial Development,* 1956, 5.
[103] Ibid.

characterized by motels, amusement parks, and the industrial landscape to the north of Niagara Falls.[104] The two Sir Adam Beck hydroelectric plants built by Ontario Hydro in the 1930s and between 1950 and 1954 both incorporated extensive visitor and recreational facilities in their design. Writing in PASNY's 1960 *Progress Report on Niagara Frontier Program*, Moses acknowledged that "Canada was far ahead of the United States in placing emphasis on parks and other aesthetic considerations. Canada developed a park system on its side of the river and protected it against spoliation, while we allowed our side to be virtually ruined."[105]

In September 1956, PASNY unveiled its planned NPP-related improvements to the park and transportation system of the Niagara Frontier. These included PASNY-financed upgrades to Goat Island, Beaver Island State Park, Buckhorn Island State Park (to be turned into a bird sanctuary), and expansion of the Niagara Reserve. For Beaver Island State Park, PASNY proposed improvements and expansion of the park's golf, swimming, camping, and boating facilities. At Niagara Falls, PASNY would fund improvement of Prospect Point; an addition to the Niagara Reserve; and improvements to Goat Island with a restaurant and new bridge to the mainland. To mollify local critics of the Niagara Power Project, PASNY also proposed improvements to Hyde Park in Niagara Falls including enlargement of the existing 27-hole golf course to 36 holes, adding 140 acres to the park, and construction of a new clubhouse.[106]

In addition to the planned improvements to existing state parks, PASNY also proposed creation of a new 241-acre park, known as Reservoir Park, located immediately adjacent to the Lewiston Reservoir. The park site served as a staging area and aggregate plant during the construction of the power plant, reservoir, and pumping station and thus was one of the last NPP features to be completed. In March 1963, PASNY solicited proposals for Niagara Contract No. N59, "Construction of Reservoir Park," including construction of hardball and softball baseball diamonds, tennis courts, playgrounds, a sledding hill, and a comfort station/office building.[107]

Reservoir State Park was created atop fill produced as part of NPP construction and its planting plan consisted of grass and groupings of deciduous trees concentrated mostly at its southern end. At the park's northern end, plans included a paved parking lot and a paved path leading to the top of the Lewiston Reservoir. Military Road bisects Reservoir Park from southeast to northwest. Southeast of Military Road are the baseball diamonds and picnic shelter facilities. At its southeast corner are tennis and basketball courts. Improvements to the park carried out in 2011-2012 included the construction of a winter pavilion, ice rink, and picnic shelters, improvements to paths and signage, and renovation of the playgrounds. Since its completion in 1964, Reservoir Park has been operated as part of the New York State park system.

The planting plans designed by the Clarke & Rapuano firm for the green spaces of the NPP, including Reservoir Park, were simple and economical, as if to acknowledge that the designed landscape should not compete with the spectacular natural scenery of the area. The emphasis throughout was on native plant species, planted in naturalistic groupings that blended with the existing surroundings and with a minimum of high-maintenance beds and borders. Such tree species as maple, ash, cedar, oak, pine, and birch were used extensively. Native plantings were also used to frame the approaches to the NPP facilities.

The significance of the overall architectural and landscape plan for the NPP is based on its integration of several important themes: recreation and public use made accessible by a system of parkways and expressways linking the NPP with the surrounding state parks and attractions; utilization of similar building materials, such as concrete, glass, and metals; and the use of native plant species to create a cohesive

[104] Berton, 150.
[105] PASNY, *Progress Report on Niagara Frontier Program,* September 1960, 3.
[106] "$750 Million Plan for Area Unveiled. Vast Power, Parks Setup is Detailed," *Niagara Falls Gazette,* September 19, 1956.
[107] Uhl, Hall & Rich, *Specification No. PA-N-23068, Niagara Contract No. N-59 for the Construction of Reservoir Park*, 1963.

landscape closely related to the surrounding natural environment. Under the overall direction of PASNY chair Robert Moses; architects John B. Peterkin; Clarke and Rapuano; Slater and Chait; and the engineers Uhl, Hall and Rich, the design of the Niagara Power Project clearly represents and conveys the mid-twentieth century ideal of the interrelationship of public works and public recreation.

9. Major Bibliographical References

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Niagara Power Project Historic District
Name of Property

Niagara, NY
County and State

Previous documentation on file (NPS):

____preliminary determination of individual listing (36 CFR 67 has been requested)
____previously listed in the National Register
____previously determined eligible by the National Register
____designated a National Historic Landmark
____recorded by Historic American Buildings Survey #_____
____recorded by Historic American Engineering Record # _____
____recorded by Historic American Landscape Survey # _____

Primary location of additional data:

__X__State Historic Preservation Office
____Other State agency
____Federal agency
____Local government
____University
____Other
Name of repository: _____

Historic Resources Survey Number (if assigned): _____

10. Geographical Data

Acreage of Property 2,595.26 acres
(Do not include previously listed resource acreage.)

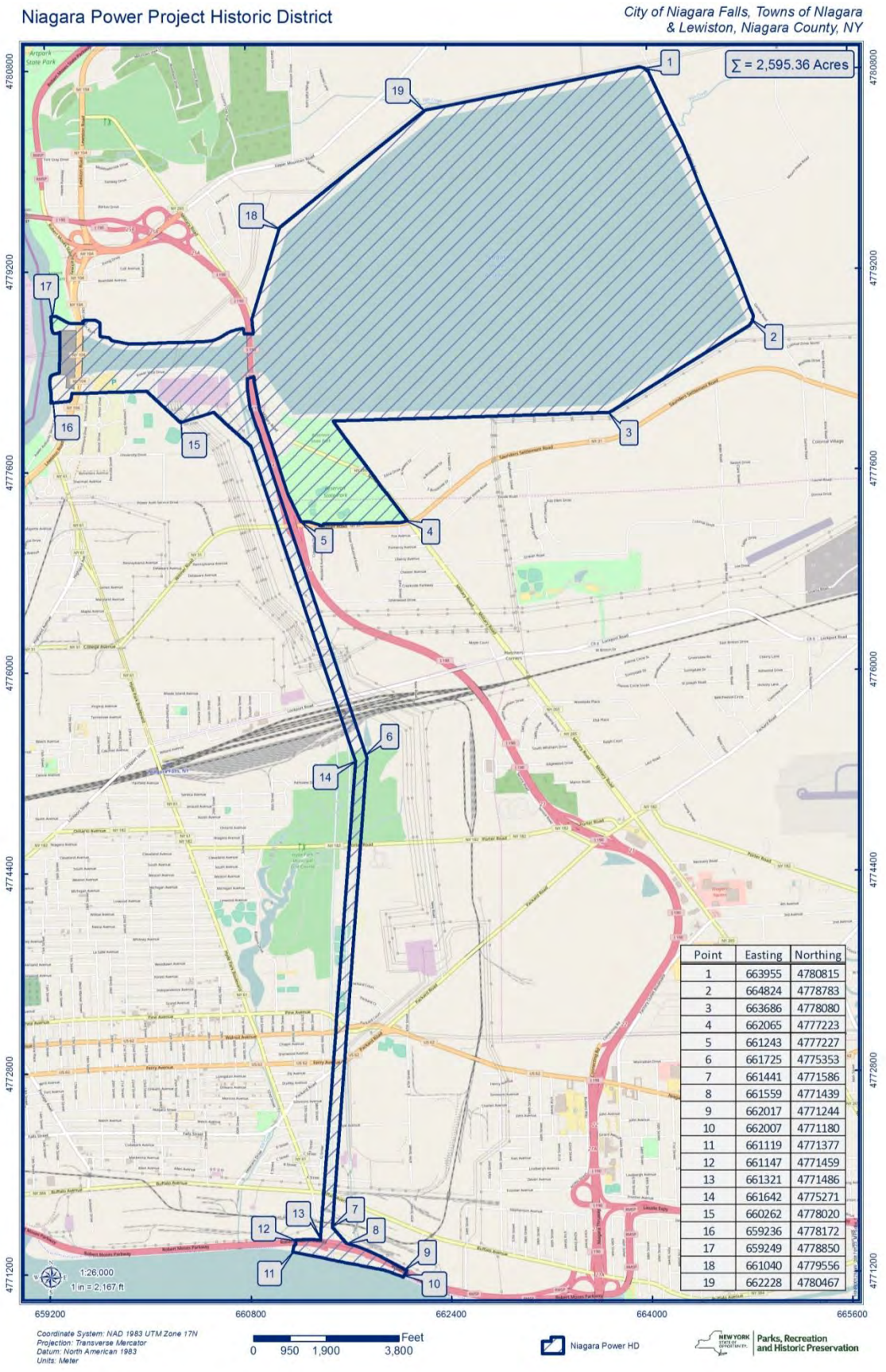
UTM References
(Place additional UTM references on a continuation sheet.)

17N

Point	Easting	Northing
1	663955	4780815
2	664824	4778783
3	663686	4778080
4	662065	4777223
5	661243	4777227
6	661725	4775353
7	661441	4771586
8	661559	4771439
9	662017	4771244
10	662007	4771180
11	661119	4771377
12	661147	4771459
13	661321	4771486
14	661642	4775271
15	660262	4778020
16	659236	4778172
17	659249	4778850
18	661040	4779556
19	662228	4780467

Niagara Power Project Historic District
Name of Property

Niagara, NY
County and State



Point	Easting	Northing
1	663955	4780815
2	664824	4778783
3	663686	4778080
4	662065	4777223
5	661243	4777227
6	661725	4775353
7	661441	4771586
8	661559	4771439
9	662017	4771244
10	662007	4771180
11	661119	4771377
12	661147	4771459
13	661321	4771486
14	661642	4775271
15	660262	4778020
16	659236	4778172
17	659249	4778850
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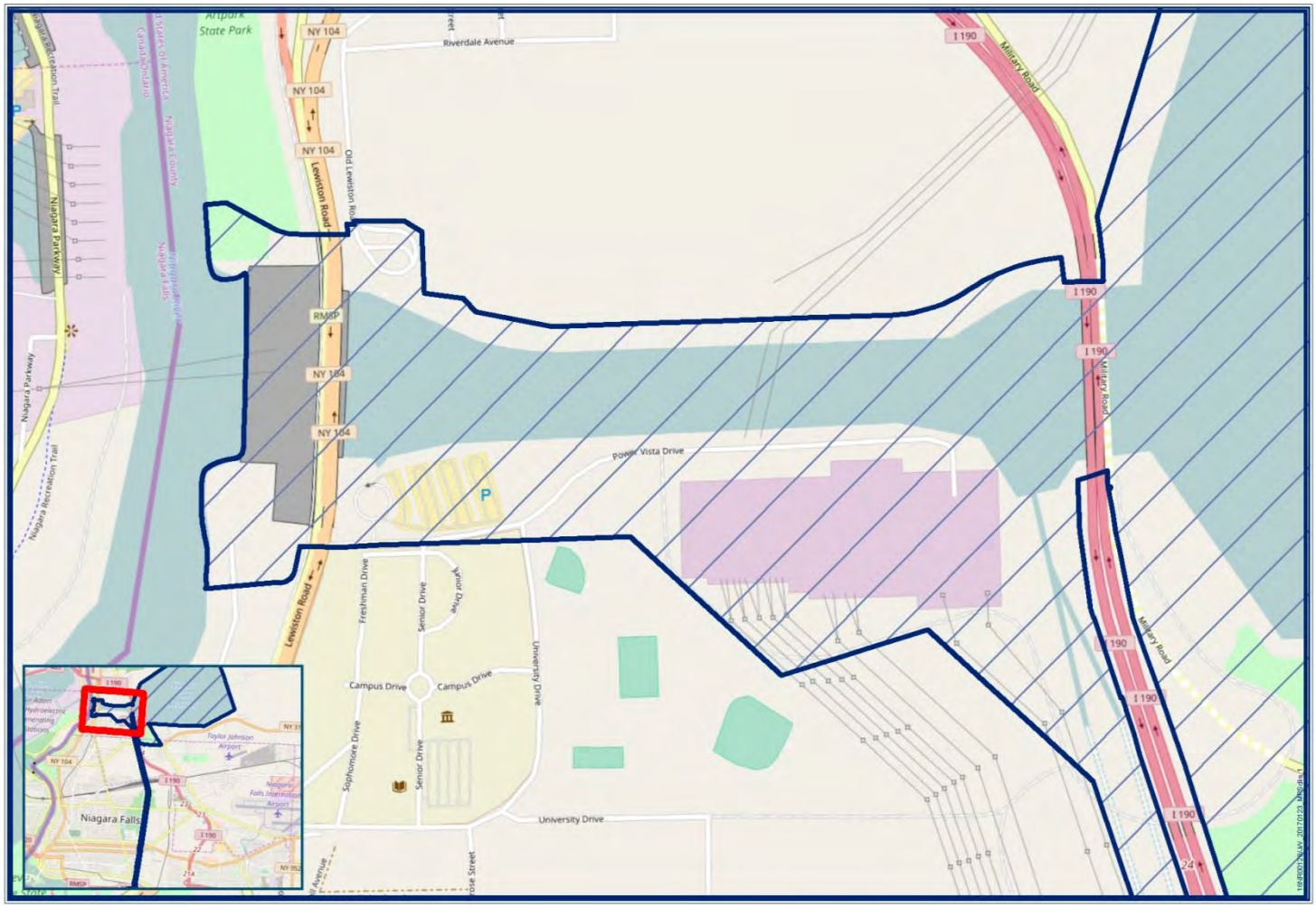
Niagara Power Project Historic District
Name of Property

Niagara, NY
County and State



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1 in = 755 ft

Coordinate System: NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Datum: North American 1983
Units: Meter

Feet
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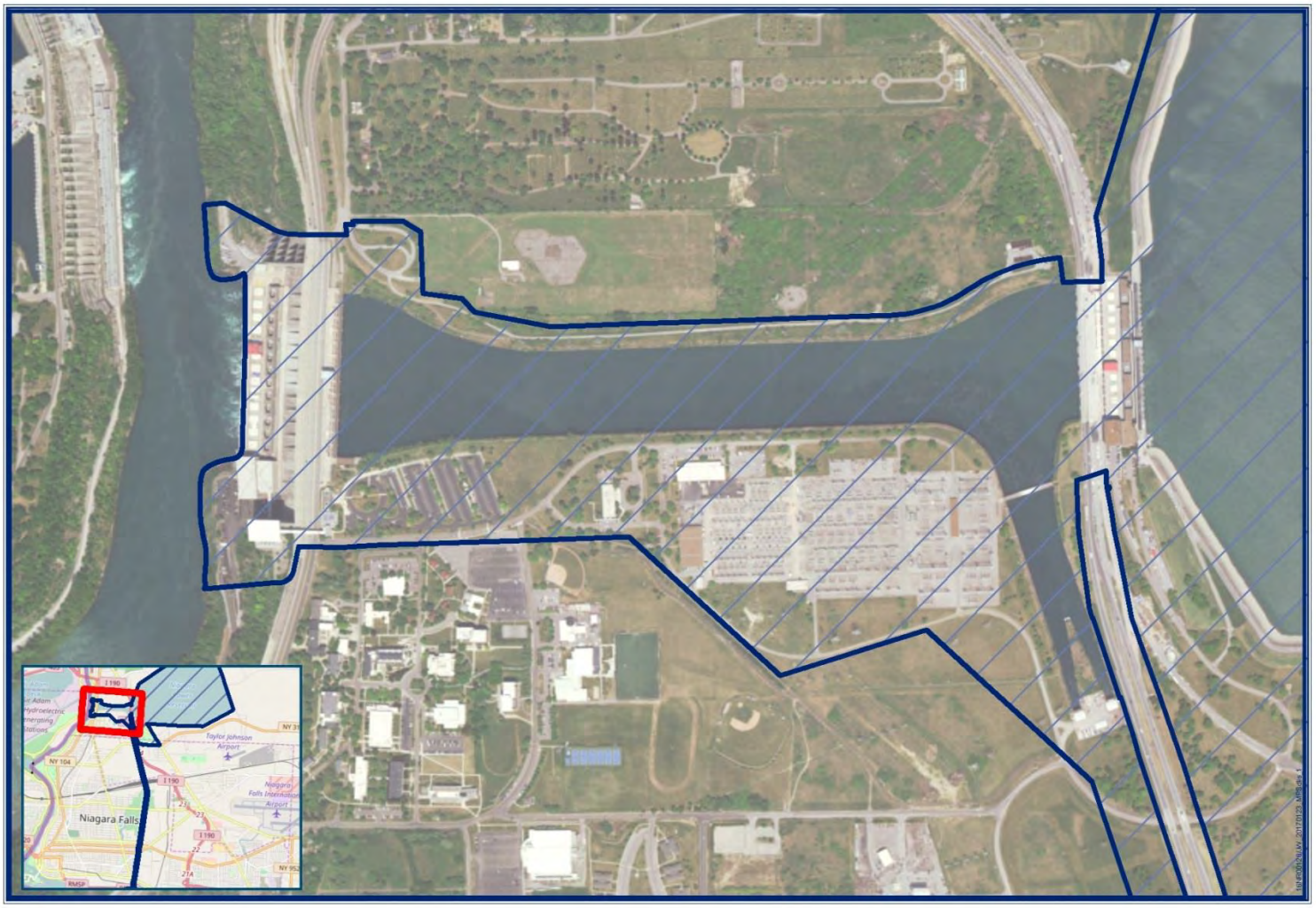
Niagara Power HD

NEW YORK STATE OF OPPORTUNITY. Parks, Recreation and Historic Preservation

Niagara Power Project Historic District
Name of Property

Niagara, NY
County and State



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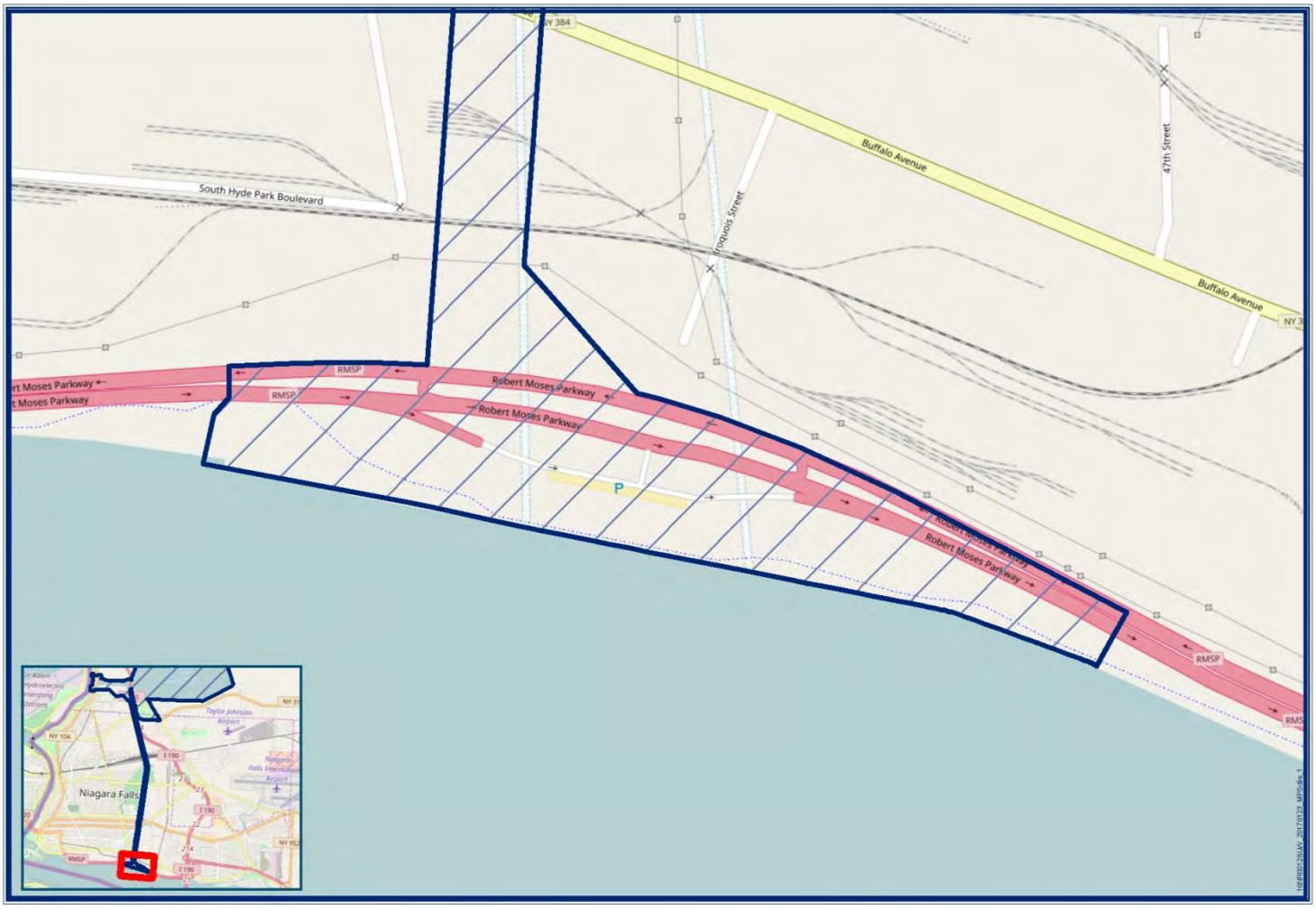

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Projection: Transverse Mercator
Datum: North American 1983
Units: Meter

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Niagara Power HD

NEW YORK STATE OF OPPORTUNITY. Parks, Recreation and Historic Preservation

Niagara Power Project Historic District
Name of Property

Niagara, NY
County and State

1:5,000
1 in = 417 ft

Coordinate System: NAD 1983 UTM Zone 17N
Projection: Transverse Mercator
Datum: North American 1983
Units: Meter

0 187.5 375 750 Feet

Niagara Power HD

NEW YORK STATE OF OPPORTUNITY. Parks, Recreation and Historic Preservation

Niagara Power Project Historic District | Niagara, NY
Name of Property | County and State

Verbal Boundary Description (Describe the boundaries of the property.)

The nomination boundary is indicated by a heavy line on the enclosed map with scale.

Boundary Justification (Explain why the boundaries were selected.)

The NPP Historic District boundaries primarily encompass the historic engineering and architectural resources that are directly used for hydroelectric power production and support, as illustrated in the attached boundary map. Additionally, the boundaries include Reservoir State Park, a recreational area built as a part of the NPP. The historic district boundaries do not encompass all of the lands owned by NYPA as part of the NPP, and they do not conform to the larger project boundary recognized by the Federal Energy Regulatory Commission (FERC). Those areas of the NPP that are not directly related to power production or Reservoir State Park were excluded from the historic district boundaries. Excluded areas include the eastern shoreline of the Niagara River on the north and south sides of the Robert Moses Power Plant and Power Vista, the shoreline of the Niagara River on the east and west sides of the project intake area, and narrow strips of land surrounding the Lewiston Reservoir and water conduit corridor. See the attached boundary map for reference to the FERC project boundary outlined in red, and the historic district boundary in black.

11. Form Prepared By

name/title Geoffrey B. Henry and David L. Price
organization TRC Environmental Corp. date
street & number 1865 Air Lane Drive telephone 615-884-4430 ext. 15
city or town Nashville state TN zip code 37210
e-mail dprice@trcsolutions.com

Additional Documentation

Submit the following items with the completed form:

- **Maps:** A **USGS map** (7.5 or 15 minute series) indicating the property's location.

  A **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.

- **Continuation Sheets**

- **Additional items:** (Check with the SHPO or FPO for any additional items.)

Photographs:

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map.

Name of Property:	Niagara Power Project Historic District
City or Vicinity:	Towns of Lewiston and Niagara and City of Niagara Falls
County:	Niagara
State:	New York
Location of Original Digital Files:	New York Power Authority (NYPA), Agency Preservation Officer, 123 Main Street, Mailstop 5-E, White Plains, NY 10601-3170
Number of Photographs:	39

Niagara Power Project Historic District | Niagara, NY
Name of Property | County and State

Description of Photograph(s) and number:

1) Aerial View of Niagara Power Project Historic District, View East.
From Front to Rear of Photograph: Niagara River and Robert Moses Power Plant, Lewiston Road and Robert Moses State Parkway Crossing Over Dam; Forebay/Afterbay, Military Road and Niagara Expressway Crossing Over Forebay via the Highway Bridge, Lewiston Pump Generating Station in Middle Distance; and Reservoir in Background. Reservoir State Park is at Lower Right of the Reservoir.
Photographer: NYPA Staff
Date Photographed: September, 2001

2) View of Bulkhead, View East.
Photographer: David Frazier, Gomez & Sullivan Engineers, P.C., Williamsville, NY
Date Photographed: September, 2011

3) Aerial View of Intake Gate Hoist Structures and a Section of the Robert Moses State Parkway, View West.
Photographer: NYPA Staff
Date Photographed: July, 2001

4) West Intake Gate Hoist Structure with Original Cladding, View Southeast.
Photographer: Robert Panepinto, NYPA
Date Photographed: March, 2010

5) East Intake Gate Hoist Structure with Replacement Cladding, View East.
Photographer: Robert Panepinto, NYPA
Date Photographed: March, 2010

6) View of Canal, and Forebay/Afterbay and Military Road/Niagara Expressway Bridge, View West from atop Lewiston Pump Generating Plant.
Photographer: NYPA Staff
Date Photographed: September, 2010

7) Aerial View of Forebay/Afterbay View Southeast with Military Road/Niagara Expressway Bridge, and Lewiston Pump Generating Plant on the Left, and Conduit Discharge at the Upper Right.
Photographer: NYPA Staff
Date Photographed: October, 1996

8) View of Conduit Unwatering Pump Station “A”, View Southwest.
Photographer: Robert Daly, NYPA
Date Photographed: September, 2011

9) Aerial View of Lewiston Pump Generating Plant. Bridge Carries Niagara Expressway (Left Lanes) and Military Road (Right Lanes) in Front of the Lewiston Pump Generating Plant.
Photographer: NYPA Staff

Date Photographed: July, 2001

10) View of Lewiston Pump Generating Plant and Niagara Expressway/Military Road Bridge, View Northeast from Electrical Switchyard.
Photographer: NYPA Staff
Date Photographed: September, 2010

11) View of Lewiston Pump Generating Plant, View North from Unnamed Access Road.
Photographer: NYPA Staff
Date Photographed: September, 2010

12) Aerial View of Reservoir, View Northeast. Lewiston Pump Generating Plant and Niagara Expressway/Military Road are below; Forebay/Afterbay in Middle of Photo with Niagara University Campus to its Right; Robert Moses Niagara Power Plant/Power Vista and Lewiston Road/Robert Moses State Parkway are at Bottom of Photo.
Photographer: NYPA Staff
Date Photographed: July, 2001

13) View of Robert Moses Niagara Power Plant, View East from Ontario, Canada.
Photographer: TRC Environmental, Inc.
Date Photographed: May, 2010

14) Robert Moses Niagara Power Plant and Dam, View North/Northwest from Observation Building.
Photographer: TRC Environmental, Inc.
Date Photographed: May, 2010

15) Robert Moses Niagara Power Plant, Gantry Crane and Dam, and Robert Moses State Parkway, View Northeast.
Photographer: NYPA Staff
Date Photographed: April, 2011

16) Robert Moses Niagara Power Plant Erection Bay (Left) and Control Building (Between Erection Bay and Dam Face at Right), View North
Photographer: NYPA Staff
Date Photographed: April, 2011

17) Robert Moses Power Niagara Plant, Erection Bay Interior, View South. Large Enough to House Both Gantry Cranes, the Interior Space is Used to Assemble Turbine and Gantry Cranes.
Photographer: NYPA Staff
Date Photographed: April, 2011

18) Screen Well and Access Building, View Northwest.
Photographer: NYPA Staff
Date Photographed: September, 2010

19) Fishing Pier, View East.
Photographer: NYPA Staff
Date Photographed: September, 2010

20) Fishing Pier, View Northeast.
Photographer: NYPA Staff
Date Photographed: September, 2010

21) Fish Cleaning Structure and Restrooms, View Northwest.
Photographer: NYPA Staff
Date Photographed: September, 2010

22) Power Vista Reception Building, View Southwest From Parking Area.
Photographer: TRC Environmental Inc.
Date Photographed: May, 2010

23) Observation Building, Northeast Corner with Lewiston Road in Foreground, View Southwest.
Photographer: TRC Environmental Inc.
Date Photographed: May, 2010

24) Power Vista Reception Building, Entrance Portal, View West.
Photographer: TRC Environmental Inc.
Date Photographed: May, 2010

25) Observation Building, South Elevation, View North.
Photographer: TRC Environmental Inc.
Date Photographed: May, 2010

26) Reception Building, Interior View of Lobby East Wall.
Photographer: NYPA Staff
Date Photographed: July, 2011

27) Observation Building, Interior View with Thomas Hart Benton Mural, *Father Hennepin at Niagara Falls* (1961) View West.
Photographer: NYPA Staff
Date Photographed: September, 2010

28) Observation Building, Interior View with Original Diorama, View Southeast.
Photographer: NYPA Staff
Date Photographed: September, 2010

29) View of Electrical Switchyard, View Northwest from South Entrance Drive.
Photographer: NYPA Staff
Date Photographed: September, 2010

30) Administration Building, View Southeast.
Photographer: NYPA Staff
Date Photographed: September, 2010

31) Administration Building, View Southwest.
Photographer: NYPA Staff
Date Photographed: September, 2010

32) Administration Building, Lobby Interior.
Photographer: NYPA Staff
Date Photographed: August, 2011

33) Administration Building, Trustees Room Interior.
Photographer: NYPA Staff
Date Photographed: August, 2011

34) Reservoir State Park, Entrance Sign View South/Southwest.
Photographer: David Frazier, Gomez & Sullivan Engineers, P.C., Williamsville, NY
Date Photographed: May 2012

35) Reservoir State Park, Comfort Station, View North.
Photographer: Robert Panepinto, NYPA
Date Photographed: May 2012

36) Reservoir State Park, Winter Pavilion, View West.
Photographer: David Frazier, Gomez & Sullivan Engineers, P.C., Williamsville, NY
Date Photographed: May 2012

37) Reservoir State Park, Gazebo, View North
Photographer: Robert Panepinto, NYPA
Date Photographed: May 2012

38) Reservoir State Park, Picnic Shelter, View East.
Photographer: Robert Panepinto, NYPA
Date Photographed: May 2012

39) View of Comfort Station, View Northwest.
Photographer: Robert Panepinto, NYPA
Date Photographed: September, 2011

Niagara Power Project Historic District | Niagara, NY
Name of Property | County and State

Property Owner:

(Complete this item at the request of the SHPO or FPO.)

name New York Power Authority

street & number 123 Main Street telephone 914-681-6200

city or town White Plains state NY zip code 10601-3170

Niagara Power Project Historic District | Niagara, NY
Name of Property | County and State

HISTORIC IMAGES

1) Historic Construction Photograph of Water Intakes and Bulkhead (Right).

Photographer: PASNY/Uhl, Hall & Rich (Source: NPP Archives, Niagara Falls, NY)
Date Photographed: August 22, 1960


PA7-14633 NIAGARA POWER PROJECT. WATERWAYS-INTAKE. General status view looking northwesterly along face of Intake #2. Structural steel of Intake Gate Structure #1 appears at top right.

2) Historic Aerial Photograph during Construction of Water Intakes and Bulkhead.

Photographer: PASNY/Uhl, Hall & Rich (Source: NPP Archives, Niagara Falls, NY)
Date Photographed: October 16, 1959

3) Historic Photograph of Intake Gate Hoist Structures, Looking East. West Structure is in Foreground, East Structure is in Background.

Photographer: PASNY/Uhl, Hall & Rich (Source: NPP Archives, Niagara Falls, NY)
Date Photographed: December 1, 1961

4) Historic Aerial Photograph During Construction of Conduits, Looking North from South of Witmer Road.

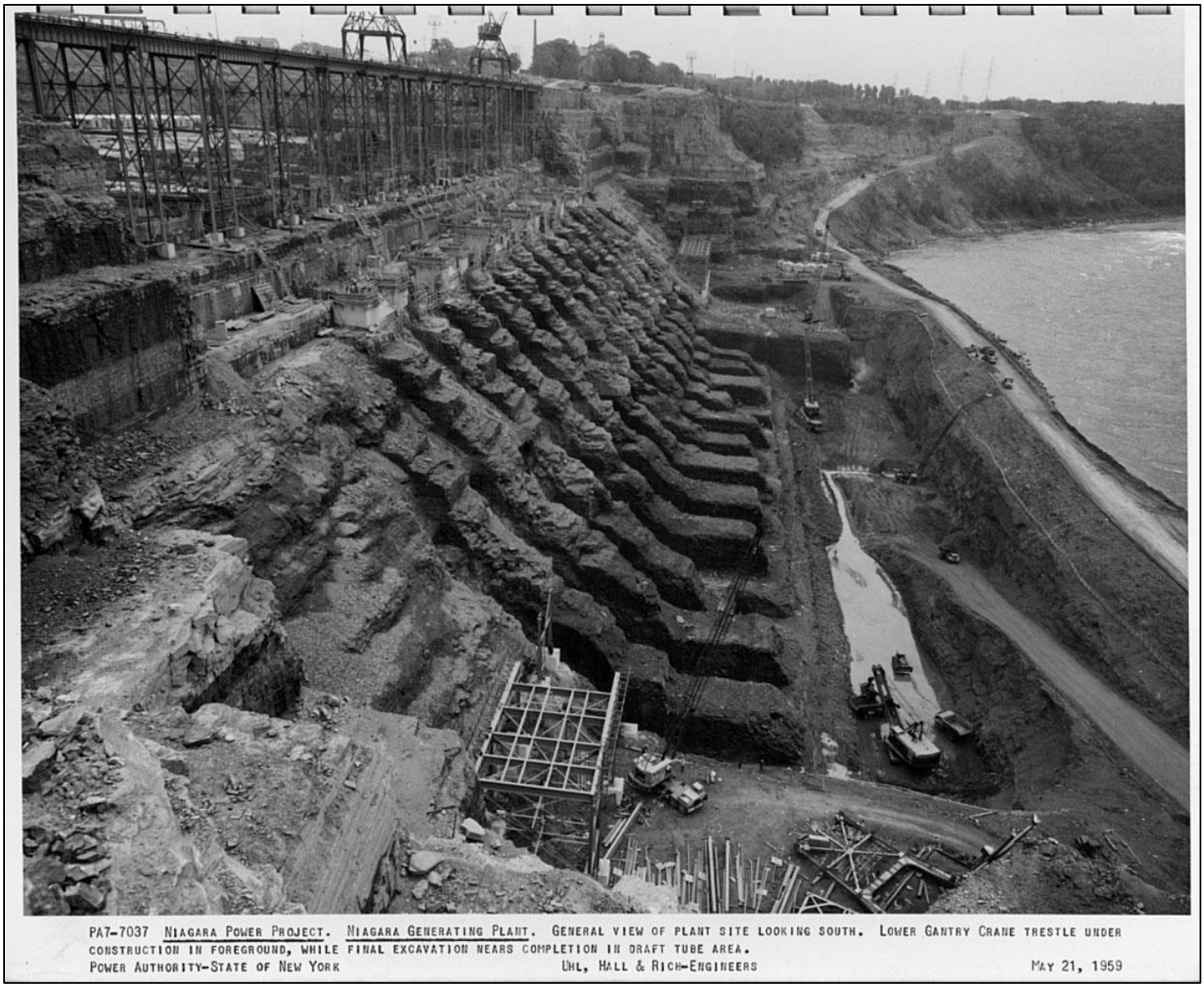
Photographer: PASNY/Uhl, Hall & Rich (Source: NPP Archives, Niagara Falls, NY)
Date Photographed: May, 1960

5) Construction of Conduit 2.

Photographer: PASNY/Uhl, Hall & Rich (Source: NPP Archives, Niagara Falls, NY)
Date Photographed: January 13, 1960

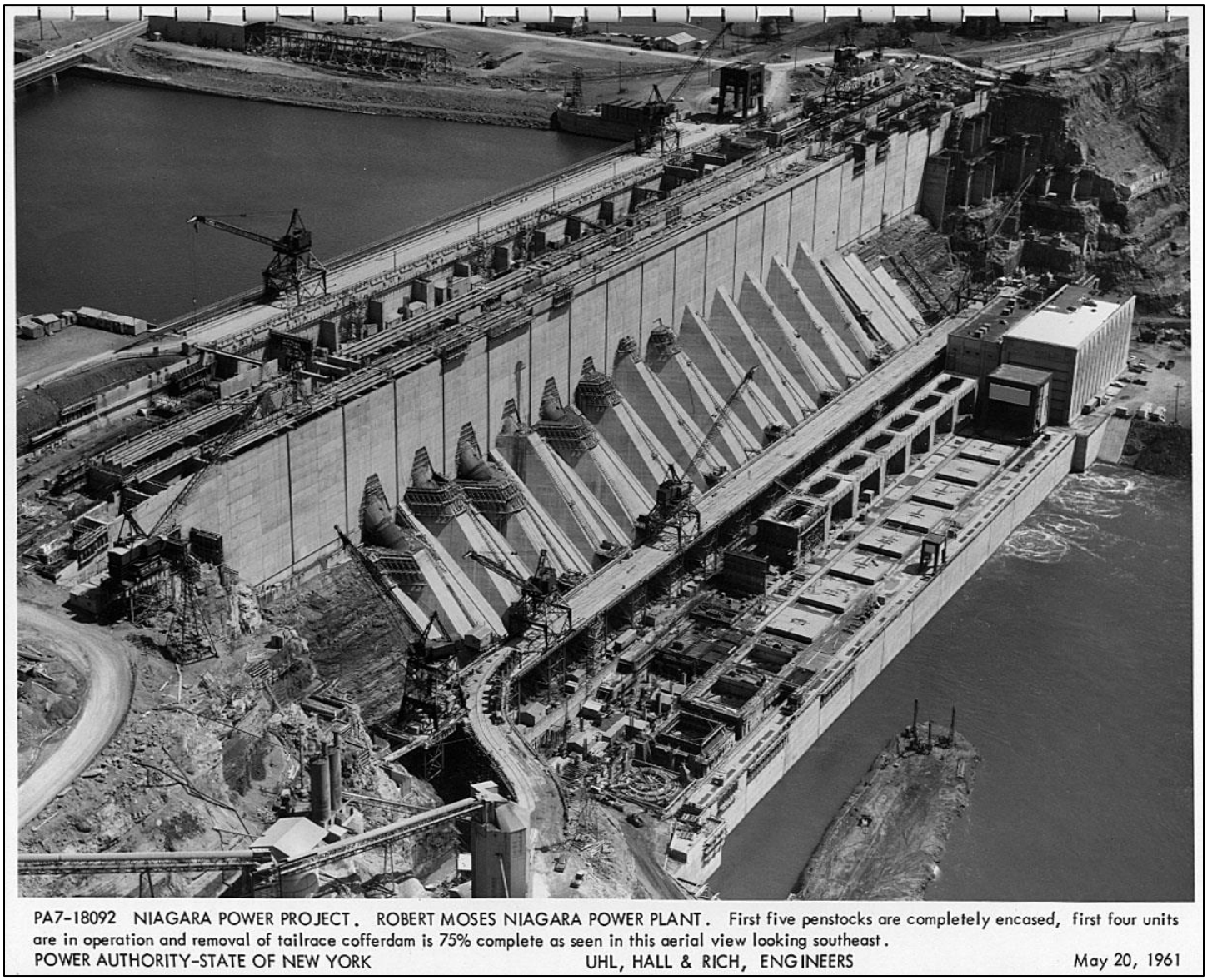
6) Historic Construction Photograph of Robert Moses Niagara Power Plant, Looking South from North Buttress.

Photographer: PASNY/Uhl, Hall & Rich (Source: NPP Archives, Niagara Falls, NY)
Date Photographed: May 21, 1959



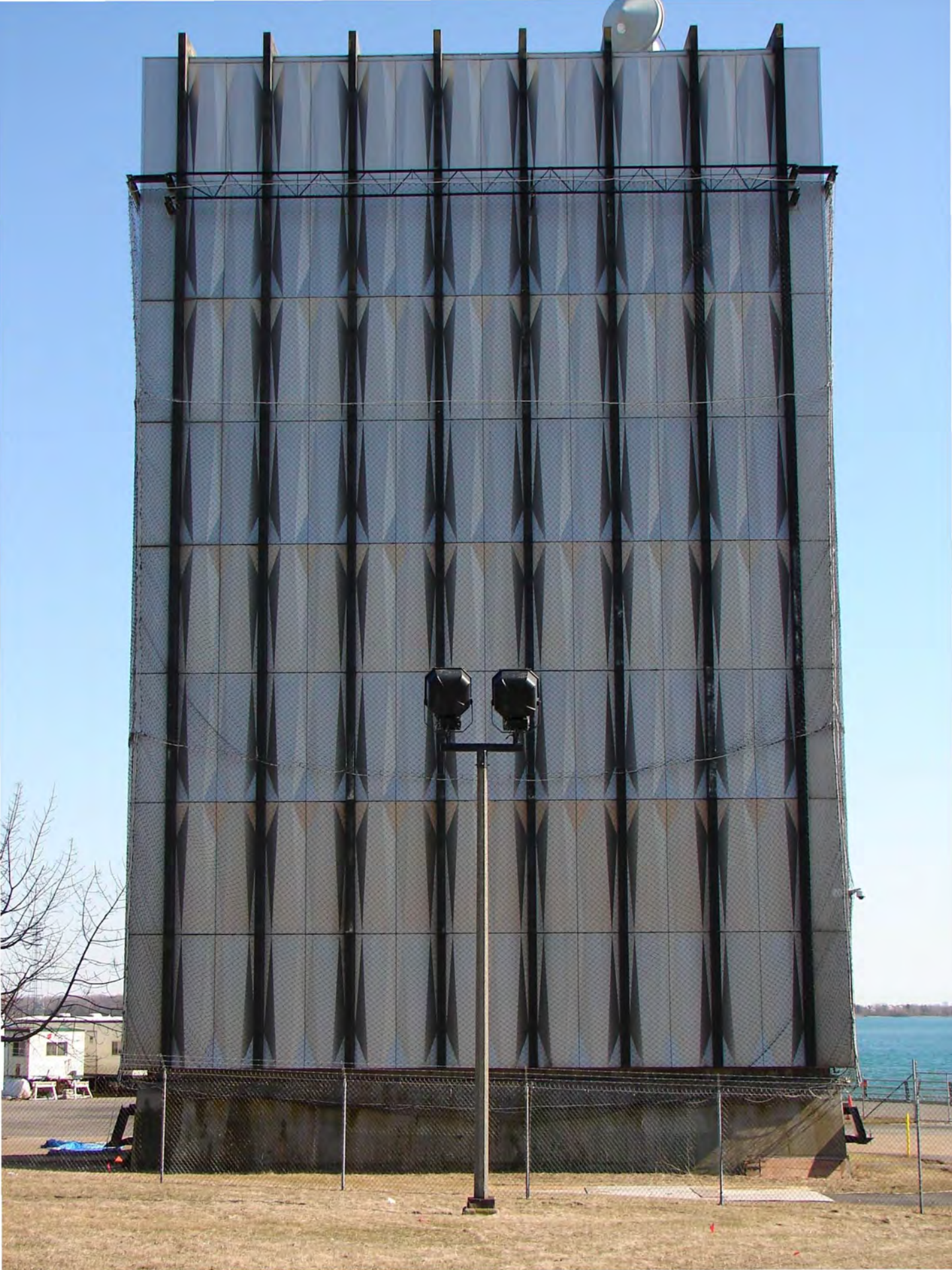
7) Historic Aerial Construction Photograph of Robert Moses Niagara Power Plant, Looking Southeast.

Photographer: PASNY/Uhl, Hall & Rich (Source: NPP Archives, Niagara Falls, NY)
Date Photographed: May 20, 1961



8) Historic Construction Photograph of Robert Moses Power Niagara Plant Erection Bay, Looking Southeast.

Photographer: PASNY/Uhl, Hall & Rich (Source: NPP Archives, Niagara Falls, NY)
Date Photographed: April 20, 1960




POWER AUTHORITY
PUMP - GENERATING PLANT


STOP


NO PARKING


POWER VISTA


ROBERT MOSES NIAGARA POWER PLANT
POWER AUTHORITY OF THE STATE OF NEW YORK


POWER VISTA
POW


TRUSTEES
POWER AUTHORITY OF THE STATE OF NEW YORK
ROBERT MOSES · CHAIRMAN 1954 THROUGH 1962
JAMES A. FITZPATRICK · CHAIRMAN 1963
THEODORE HILL JR. · VICE CHAIRMAN
FINLA G. CRAWFORD · EDMUND H. BROWN
ARTHUR M. RICHARDSON
OTHER TRUSTEES DURING CONSTRUCTION
CHARLES POLETTI · A. THORNE HILLS · WILLIAM WILSON
ROBERT MOSES NIAGARA POWER PLANT
POWER AUTHORITY OF THE STATE OF NEW YORK
THE PRESERVATION AND ENHANCEMENT OF THE BEAUTY OF NIAGARA FALLS AND THE NIAGARA GORGE WERE PARAMOUNT CONSIDERATIONS IN THE REALIZATION OF THIS COMPREHENSIVE PROGRAM WHICH IN ADDITION TO POWER INCLUDED INCIDENTAL PARK, PARKWAY, HIGHWAY, BRIDGE AND RAILWAY GRADE ELIMINATION IMPROVEMENTS. THIS TASK WAS ACCOMPLISHED DURING THE ADMINISTRATIONS OF GOVERNOR AVERELL HARRIMAN AND GOVERNOR NELSON A. ROCKEFELLER. THE POWER AUTHORITY OF THE STATE OF NEW YORK IS PROUD TO DEDICATE THESE FACILITIES TO THE PEOPLE OF THE EMPIRE STATE.
POWER PROJECT HIGHLIGHTS
1958 — 1963


The Cliff Spieler
Niagara History
Gallery


EXIT
ROBERT MOSES
PARKWAY


Our Mission is...


RESERVOIR STATE PARK
New York Power Authority


LOGIX


SHELTER
RESERVED
TODAY

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
EVALUATION/RETURN SHEET

Requested Action:	Nomination
Property Name:	Niagara Power Project Historic District
Multiple Name:	
State & County:	NEW YORK, Niagara

Date Received:	Date of Pending List:	Date of 16th Day:	Date of 45th Day:	Date of Weekly List:
5/19/2017	6/28/2017	7/13/2017	7/3/2017	7/6/2017

Reference number:	SG100001265
Nominator:	State

Reason For Review:

X Accept _____ Return _____ Reject **7/3/2017** Date

Abstract/Summary Comments:	An excellent nomination. State level of significance.
Recommendation/ Criteria	

Reviewer Alexis Abernathy Discipline Historian

Telephone (202)354-2236 Date

DOCUMENTATION: see attached comments : No see attached SLR : No

If a nomination is returned to the nomination authority, the nomination is no longer under consideration by the National Park Service.

City of Niagara Falls, New York
P.O. Box 69, Niagara Falls, NY 14302-0069

December 7, 2016

Ms. Ruth L. Pierpont
Deputy Commissioner
Division for Historic Preservation
P.O. Box 189
Waterford, NY 12188-0189

RE: Niagara Power Project Historic District

Dear Ms. Pierpont:

The City of Niagara Falls Historic Preservation Commission has reviewed the Niagara Power Project Historic District application for the State and National Registers of Historic Places. The construction of the Niagara Power Project was a Herculean effort that resulted in a technological wonder. While the Niagara Power Project has been financially advantageous for New York State as a whole, the Power Project was constructed at great cost to both the people of the Tuscarora Indian Nation and the City of Niagara Falls.

Specifically, the construction of the Niagara Scenic Parkway (former Robert Mosses Parkway) was an urban planning disaster as it foolishly severed the city from its defining feature and premier asset: the Niagara River. This error left the city to cope with a grossly over-scaled expressway that has precluded needed economic development and investment. The Parkway has isolated people and impaired the viability of waterfront neighborhoods. We stand united in the removal of the Niagara Scenic Parkway in the City of Niagara Falls.

While it's our conclusion that the Niagara Power Project meets the State and National Register listing criteria, we strongly request that the application be amended to clearly state that the Niagara Scenic Parkway is NOT to be included on State and National Register.

Sincerely,

William (Jamie) Robideau
Chair

Anne M. Smith
Vice Chair

Elaine Timm
Historian

Matthew Green

Alan Nusbaum

Dean Melson

Will Rogers

cc: Mayor Paul Dyster

NEW YORK
STATE OF
OPPORTUNITY.

Parks, Recreation
and Historic Preservation

ANDREW M. CUOMO
Governor

ROSE HARVEY
Commissioner

11 May 2017

Alexis Abernathy
National Park Service
National Register of Historic Places
1849 C Street NW
Washington DC 20240

Re: National Register Nomination

Dear Ms. Abernathy:

I am pleased to submit the following two nominations, both on disc, to be considered for listing by the Keeper of the National Register:

Tallman-Budke & Vanderbilt-Budke-Traphagen Houses, Rockland County
Niagara Power Project Historic District, Niagara County

Please feel free to call me at 518.268.2165 if you any questions.

Sincerely:

Kathleen LaFrank

Kathleen LaFrank
National Register Coordinator
New York State Historic Preservation Office