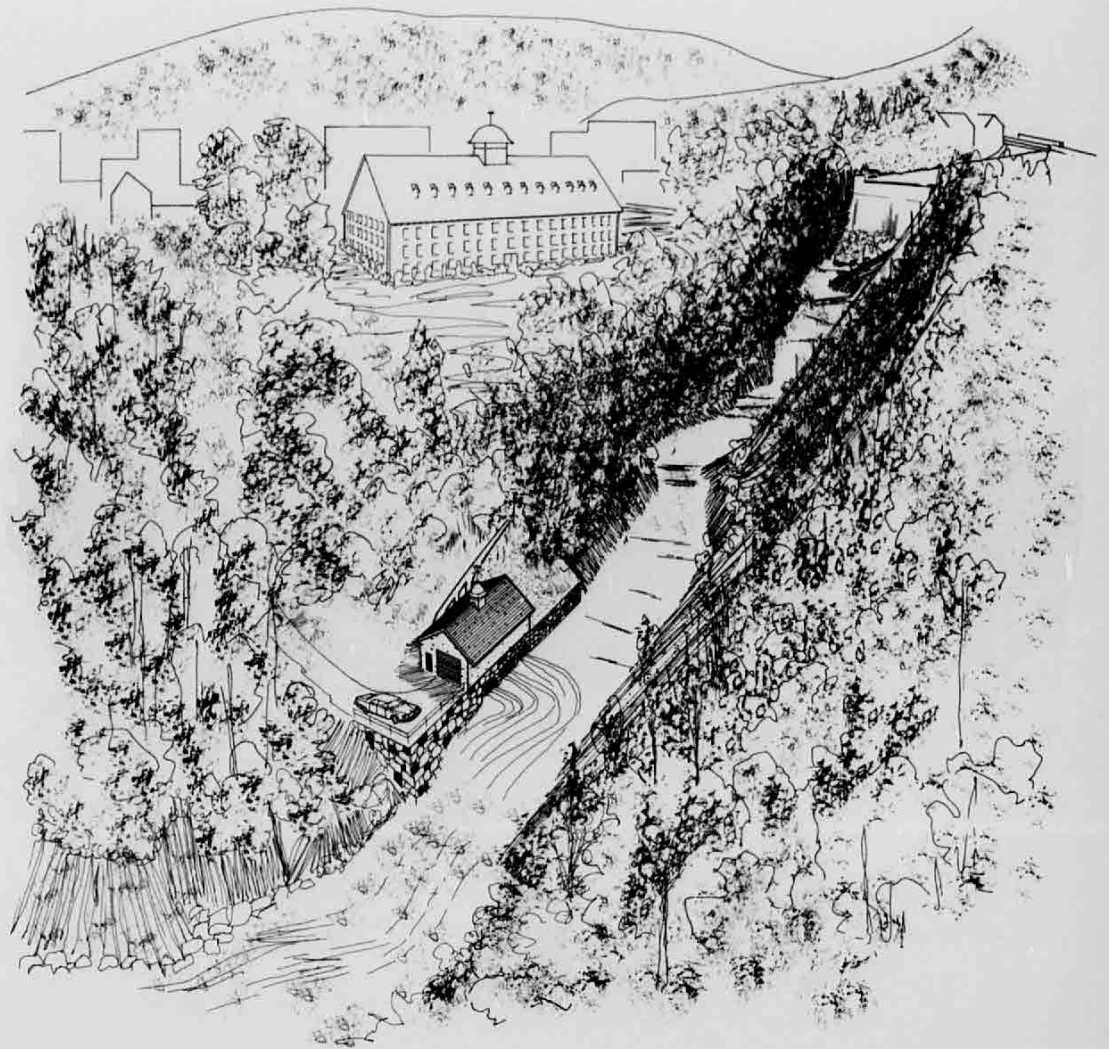


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FEDERAL ENERGY
REGULATORY COMMISSION



FEDERAL ENERGY REGULATORY COMMISSION • APPLICATION FOR EXEMPTION FROM LICENSING

8205070334

Mt. Ida Associates
Mt. Ida Small Hydroelectric Development Project

FEDERAL ENERGY REGULATORY COMMISSION
APPLICATION FOR EXEMPTION FROM LICENSING
FOR PROPOSED HYDROELECTRIC FACILITY
MT. IDA ASSOCIATES
MT. IDA SMALL HYDROELECTRIC PROJECT
POESTENKILL GORGE, TROY NEW YORK

Applicant: Mt. Ida Associates
Latham Circle Mall - Room 111
800-19 New Loudon Road
Latham, New York 12110

Date: May 1982

F.E.R.C. PROJECT NO. 5465-001

THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Mt. Ida Associates

Project No. 5465-001

APPLICATION FOR EXEMPTION OF SMALL HYDROELECTRIC
POWER PROJECT FROM LICENSING

MT. IDA PROJECT
POESTENKILL GORGE
CITY OF TROY
RENSSELAER COUNTY, NEW YORK

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 - V. EXHIBIT G - Structures and Equipment
- APPENDIX
- A. Documentation of Real Property Interest
 - B. Support Material - Environmental Report, Exhibit E

FEDERAL ENERGY REGULATORY COMMISSION
DOCKETED

MAY 6 1982

DOCKET SECTION

LIST OF FIGURES

<u>Drawing No.</u>	<u>Title</u>
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B-1	Existing and Proposed Facility Map
B-2	Location Map - USGS Quadrangle
B-3	Property Ownership Map
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I. INTRODUCTORY STATEMENT

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Mt. Ida Associates Inc.

Project No. 5465-000

APPLICATION FOR EXEMPTION OF SMALL HYDROELECTRIC
POWER PROJECT OF 5 MEGAWATTS OR LESS

PURSUANT TO THE FEDERAL POWER ACT AS AMENDED
FOR THE PROPOSED
MT. IDA PROJECT
ON THE POESTENKILL GORGE IN THE CITY OF TROY
RENSSELAER COUNTY, NEW YORK

(1) Mt. Ida Associates (Applicant), is a general partnership, incorporated under the laws of New York State, with the legal address of Latham Circle Mall - Room 111, 800-19 New Loudon Road, Latham, New York 12110, herewith applies for an exemption, pursuant to the Federal Power Act, 16 U.S.C. Section 791, et seq., as amended by the Public Utilities Regulatory Policies Act of 1978 and the Energy Security Act of 1980, 16 U.S.C. Section 2705, et seq., and pursuant to the Commission's implementing regulations, 18 C.F.R., Part 4, Subpart K (1980), for a development utilizing the hydroelectric potential created by an existing dam and a natural rock gorge on the Poestenkill Creek in the city of Troy, Rensselaer County, New York, without impeding any existing usage or water rights. Applicant is the owner of all of the necessary real property interests in the lands involved in this development, including the water rights, flow easements, riparian rights in the dam, penstock, reservoir, mill and lands which are the subject of this application. Applicant seeks an exemption from the requirements of Part I of the Federal Power Act (Power Act) so as to permit applicant to proceed with the repair, reconstruction and development of facilities at this site required for the conversion and construction of such facilities for the generation of hydroelectric energy with a proposed capacity of less than 5 megawatts.

The development which is the subject of this application is the project described in the Application for Preliminary Permit submitted and accepted for filing on October 9, 1981 and assigned Project No. 5465-000 by the Commission's Secretary. The project was duly noticed on November 18, 1981 and the permit was issued on February 17, 1982 for a period of 18 months.

(2) The location of the proposed project is:

State or territory:	New York
County:	Rensselaer
Township or nearby town:	Troy
City	Troy
Stream or other body of water:	Poestenkill Creek

This project is not currently under FERC license.

(3) The exact name and business address and telephone of the applicant is:

Mt. Ida Associates
Latham Circle Mall - Room 111
800-19 New Loudon Road
Latham, New York 12110
(518) 785-1555.

(4) The exact name and business addresses and telephone numbers of the persons authorized to act as agents for the applicant in this application are:

Stephen F. Burke
620 Washington Avenue
Rensselaer, New York 12144
(518) 463-4408

Mr. William Bantz
Mt. Ida Associates
Latham Circle Mall - Room 111
800-19 New Loudon Road
Latham, New York 12110
(518) 785-1555

(5) Mt. Ida Associates is a general partnership organized under the laws of New York State. Documentation of all required real property interest and options for the control of flow and required easements on the part of the applicant is provided in Exhibit B and in Appendix A.

(6) A grant of an exemption from licensing to Mt. Ida Associates will ensure the early and timely development of the hydroelectric resource herein involved within the timeframes established in the Commission's order granting exemption. The Applicant is ready, willing and able to proceed forthwith with the repair, reconstruction and development required for the conversion of these facilities to the generation of hydroelectric energy as described in the various exhibits of this application.

The Applicant presently possesses all of the requisite property rights, interests and titles necessary to proceed forthwith with the redevelopment of this site and necessary to obtain the requisite permits required for such redevelopment from the State of New York and from the local authorities.

WHEREFORE, applicant respectfully prays for the timely issuance of an order granting exemption in conformance with the terms of this application and the applicable regulations of the Commission.

Respectfully submitted,



William Bantz


April 26, 1982

Date

SUBSCRIPTION AND VERIFICATION

SUBSCRIPTION AND VERIFICATION


I, WILLIAM BANTZ, do depose and state that I am a general partner in Banmer Associates and a general partner in Mt. Ida Associates, general partnerships organized under the laws of New York State, with offices at Latham Circle Mall - Room 111, 800-19 New Loudon Road, Latham, New York 12110; that I am the authorized agent for said general partnership; and the contents of this application are true to the best of my knowledge and belief; that I have signed this application this -26th- day of April 1982 and that all material, information and exhibits contained therein are true to the best of my knowledge and belief, and further that I, WILLIAM BANTZ, fully suscribe to the submission of this application.



William Bantz

STATE OF NEW YORK)
) ss:
COUNTY OF RENSSELAER)

On this -26th- day of April 1982, before me came one WILLIAM BANTZ, who identified himself as the individual described in and who executed the foregoing instrument and acknowledged that he executed the same.



Notary Public

KATHLEEN C. PATTERSON
Notary Public, State of New York
Qualified in Rensselaer Co.
My Commission Expires March 30, 1984
4522476

EXHIBIT A

II. PROPOSED PROJECT DESCRIPTION AND MODE OF OPERATION

EXHIBIT A

PROJECT DESCRIPTION

1. Site Description
2. Existing Civil and Mechanical Features
3. Proposed Configuration
4. Descriptive Data Summary
5. Other Aspects

EXHIBIT A
DESCRIPTION

1. SITE DESCRIPTION

The Mt. Ida Poestenkill Site is located in Rensselaer County, City of Troy, New York on the Poestenkill Creek in a steep rock gorge which has been the site of numerous previous water power developments. The site is located on USGS Quadrangle "Troy South" at Latitude 42 -44'-42" and Longitude 73 -41'-43". (See Exhibit B Sheets 1 and 2).

The proposed Mt. Ida Project involves a modernization and expansion of a formerly operative mill site which has not been in service since 1962. Mt. Ida Associates proposes to renovate the former Tim and Company Mill (Wultex Building or Mt. Ida Mill) for the purposes of hydroelectric generation and for rental housing. The mill site is an integral member of a former chain of sites which at one time through a linked sequence of steps in head, developed the potential of the Poestenkill at this natural rock gorge. It is now possible to consolidate and redevelop the potential collectively represented by this cluster of former low head mills into a single high head development which will maximize the hydraulic potential of a significant water feature.

Mt. Ida Associates specifically proposes to redeveloped the site by reutilizing an existing timber dam at the head of the gorge, reactivating a former rock tunnel water conveyance facility, installing a section of new penstock, constructing a new powerhouse at the base of the gorge, and installing new turbine-generators with associated control and grid interconnection equipment. The estimated plant capacity will be 2300 KW which will yield an estimated 8,929,000 KWH on an annual basis.

The remains of what was formerly a chain of interdependent hydropower based small industries are evident at the site today.

These former sites are no longer operational and have largely fallen into ruins after a long period of dormancy. As stated, this proposal is concerned with both the renovation of selected delinquent structures and the incorporation of a modern approach to the re-development of this significant hydro resource.

The site can generally be described as a deep rock gorge having a small timber dam at the upper elevation which facilitates the introduction of water to an underground distribution conduit leading to the former chain of mills which were clustered along the steep northern bank of the Poestenkill Gorge. These mills extracted both mechanical and electrical power from a stepped allocation of the total head represented by the site.

The Poestenkill in this reach flows westerly on its course to its confluence with the Hudson River (a distance of approximately 0.8 miles). The site has a history of waterpower development, water supply and light recreation, but it has never been of navigational significance. At this time there are no consumptive or nonconsumptive uses being made of the Poestenkill either above or below the site.

The site is listed in the FERC publication "Staff Report on Retired Hydropower Plants in the United States", December 1980. A review of this report reveals that the following listings of sites contained within the affected project area:

i) 0208398100E
City Ice and Fuel Company
Installed Capacity = 119 KW

ii) 0208398100H
John A. Manning
Installed Capacity = 496 KW

These listed owners are former owners of facilities included within the project boundary. The applicant is the owner of an existing timber dam, existing portions of the former penstock, all mill structures, the existing hydraulic turbine equipment, and holds all necessary rights to flows required to develop, operate and maintain this project.

The photo map, Exhibit B-Sheet 1, represents all the existing features of the Poestenkill Gorge in the City of Troy. The plan sketch in Exhibit G-Sheet 1 and related exhibits provides supplementary detail of the civil configuration of the proposed generation facility at the former mill site.

This project involves strictly a run-of-river mode of operation. There is no existing or proposed storage capacity associated with the project.

2. EXISTING CIVIL AND MECHANICAL FEATURES

Dam and Appurtenant Facilities

The existing timber dam was constructed in the year 1840 and then reconstructed in 1940 after hurricane flood waters caused its failure in 1935. Under a cooperative agreement, all owners connected to the water power distribution system (originating with a single intake and single penstock lead) were required to maintain all civil features and to pass flow to the users below. In further accord with the laws of the day, these owners were required to maintain all common civil features including the intake and the dam. These riparian rights were protected through a chain of deed transfers and are currently held by Mt. Ida Associates.

The timber dam is shown in Exhibit G-Sheet 2. The dam is founded on rock and has a span of 150 feet with a crest elevation of 214.30 feet (USGS). Its height varies from 4.5 feet to 13.0 feet with an average height of 10.5 feet. The timber bents (buttresses) are spaced 5 feet on center and consist of 10 inch by 10 inch members. These buttresses are decked with a double layer of face planking (4" x 10" topped by 2" x 10" planks). This planking forms a shallow pitched apron extending from 4 feet to 25 feet upstream of the spillway crest.

The dam creates a pool within the channelized banks of the Poestenkill of approximately 1.4 surface acres with a perimeter of 0.4 miles. The volume of water impounded is approximately 12 acre feet.

This pool is not capable of providing storage for hydroelectric operations, but serves to augment the significant natural head afforded by the gorge and to introduce water to the former tunnel/penstock at the intake immediately above the dam.

Penstock

The penstock path of the most recent power development scheme is known as the the Third Marshall Power System. Only remnants of the original steel penstock remain on the site at this time. The remaining penstock begins at the north bank of the Poestenkill approximately 20 feet from the existing dam at the position of the original intake. The penstock at this point is in fact a subterranean 48 to 66 inch flow conduit which was constructed in the rock wall of the gorge. This conduit remains intact and extends some 525 feet to its downstream terminal point, just east of the Mt. Ida Mill. This proposal would reutilize this section of the penstock. A steel "liner penstock" would be inserted in this section to connect with a new 60 inch steel circular penstock conveying water to the powerhouse at the base of the gorge a distance of approximately 775 feet. The planned configuration for the proposed path is shown in Exhibit B-Sheet 1 and Exhibit G-Sheet 1.

Powerhouse

The former chain of powerhouses has been demolished. Foundations and sections of earlier penstocks remain in a state of ruins. However, the mill building adjacent to the former power room remains in sound condition and the turbine pit appears to be intact. All former generation equipment has been removed from the site. It is believed that this mill site was formerly fitted with a vertical Francis turbine with a rating of 115 HP at 67 feet of net head. None of the former turbine locations or remaining equipment will be utilized in this proposal.

3. PROPOSED CONFIGURATION

The proposed powerhouse will contain three horizontal Francis turbines of 769 kilowatts capacity each. These horizontal turbines are spiral pressure cased, single runner type with an elbow draft tube discharging to a tailrace beneath the proposed powerhouse structure and discharging into the Poestenkill Creek. All turbines are to be supplied from an operational gross head of 160 feet and a net head of approximately 151 feet.

The proposed connections to the utility grid will involve interconnection to a 34.5 KV transmission main 400 feet northeast of the site. (See Exhibits B-1 and G-1). An additional interconnection may be made to an existing 13.2 KV distribution line 450 feet to the north of the proposed powerhouse for the purpose of supplying station power.

Interconnection would lead from the powerhouse location directly over the applicant's property to the interconnection locations.

This proposed configuration calls for the rehabilitation of the remaining civil features and the integration of new equipment and structures as shown in Exhibit G. The proposal involves the reutilization of the former headrace, tailrace and a portion of the existing penstock.

The redevelopment plan seeks to more fully maximize the head represented by the steep slope of the natural gorge at the Mt. Ida Associates property.

This proposal involves the construction of a new reinforced concrete powerhouse approximately 24 feet by 60 feet in plan. This powerhouse would be sited on the northern stream bank above the Poestenkill approximately 40 feet north of the centerline of the stream and 300 feet west of the former power room at the main mill. The design net head for this siting configuration is 151 feet with a corresponding design flow of 210 cubic feet per second.

Switchgear and controls would be located in the new powerhouse. Power would be transmitted 400 feet to a point of interconnection with the local 34.5 KV transmission main of the Niagara Mohawk Power Corporation.

The proposed tailrace would discharge directly to the Poestenkill at a point located on the northern bank of the Poestenkill, approximately 300 feet downstream of the Mt. Ida Mill.

i) Hydroelectric Equipment

New generation equipment would include three 900 KVA synchronous generators with power factor of 0.90, and 4,160 volt switchgear including a 34.5 KV/4.2 KV transformer and controls to interface power generated with an adjacent 34.5 KV utility transmission line. The associated resultant installed capacities are 769 KW for each unit resulting in a total installed capacity of approximately 2300 KW.

TABLE A-1

UNIT	STATUS	TYPE ¹	MANUF. ²	Q(CFS)	HP	KVA	CAPACITY(KW)
1	New	H-F	LEC	70	1160	900	769
2	New	H-F	LEC	70	1160	900	769
3	New	H-F	LEC	70	1160	900	769
TOTALS				210	3480	2700	2307

UNIT	STATUS	GENERAL T-G CONFIGURATION ³	EST. AVG. ANNUAL ENERGY (KWH)
1	New	H-F-S-A	2,979,000
2	New	H-F-S-A	2,975,000
3	New	H-F-S-A	2,975,000
TOTALS			8,929,000

LEGEND:

1 H = Horizontal shaft
F = Francis

2 Manufacturer: LEC = Leffel Energy Company

3 H = Horizontal
A = 4160 v./3 ϕ /60 hz.
S = Synchronous Generation

SUMMARY

Proposed Capacity 2300 KW
Design flow 210 cfs (Q₂₀)
Minimum plant flow 35 cfs
Total estimated avg. annual energy: 8,929,000 KWH

ii Electrical Equipment

Generating units Nos. 1, 2 and 3 will feed through individual 4,160 volt circuit breakers to a 4,160 volt station bus.

Main transformer will be 3,000 KVA, 4160 V/34.5 KV with appropriate isolating breakers and protective relays.

All generating units, transformers and switchgear will have appropriate protective relaying.

iii Description of Project Purpose, Development and Operation:

The purpose of the proposed redevelopment is to replace the former hydromechanical and hydroelectric capacity through the installation of a new powerhouse and installation of new equipment. The new spiral cased horizontal Francis units will have a rated capacity of 769 KW each, providing a combined hydroelectric capacity of 2307 KW with an estimated combined average annual electrical energy output of 8,929,000 kilowatt hours, using strictly run-of-river flows.

No provision is being made for additional units as this plan optimizes all flow which can be developed at the site. The applicant is studying transmission arrangements for an interconnection with the Niagara Mohawk Power Corporation 34.5 KV transmission line northeast of the site. No new rights-of-way will be required for this line.

Since there is essentially no usable storage, the proposed project will operate, as it did in the past, as a run-of-river plant.

The flow duration curve (Exhibit A), is based on a drainage area of 98 square miles. The maximum hydraulic capacity of the proposed project is 210 cfs. Hydroelectric generation will be limited by the natural flow. Exhibits B and G of this application fully describe the proposed concept and configuration for the new development.

No modifications to the dam will occur in association with this development.

The construction schedule reflects the applicant's preliminary discussions with the New York State Department of Environmental Conservation, Federal environmental and fish and wildlife authorities, and other interested federal, state and local authorities. The result of these preliminary discussions are incorporated herein. Applicant will continue these discussions and consultations, and will amend and supplement this application as appropriate, to incorporate summaries of such discussions and consultations, copies of all correspondence pertinent thereto, and such modifications to the project design, construction plans or schedules or project operational plans as may be appropriate.

Total average annual energy (electrical) production is estimated to be 8,929,000 KWH. Based on the currently proposed rates for small hydro projects in New York State, estimated annual revenue from the project will approximate \$536,000.

4. DESCRIPTIVE DATA SUMMARY

DAM

Height - 4.5 feet to 13 feet (Average height = 10.5 feet)

Length - 150 feet

Type - Timber construction - apron plank on "bents" or buttress members. Founded on rock, accepts 12 inch flash boards.

Spillway - Full width, uncontrolled.

Penstock

Proposed penstock consists of two sections:

i) Upper Section: Rock cut tunnel 525 feet in length, 48 inches wide by 60 inches high, with a steel liner to be inserted.

ii) Lower Section: Circular steel penstock to be 60 inches in diameter and 775 feet in length.

Equipment

3 - 18 inch spiral cased horizontal Francis units rated at 769 KW each, with 900 KVA, 4,160 volt synchronous generators.

Appurtenant switchgear and controls.

Impoundment

Normal maximum surface (headwater) elev. = 214.3 (USGS)

Normal maximum surface (tailwater) elev. = 51.7 (USGS)

Normal maximum impounded surface area = 1.4 acres.

Gross storage = 12 acre feet.

Usable storage = None, run-of-river operation.

Planned Development Schedule

Start - August 1982

Complete - August 1984

Power Market

Electrical energy generated will have a single application:

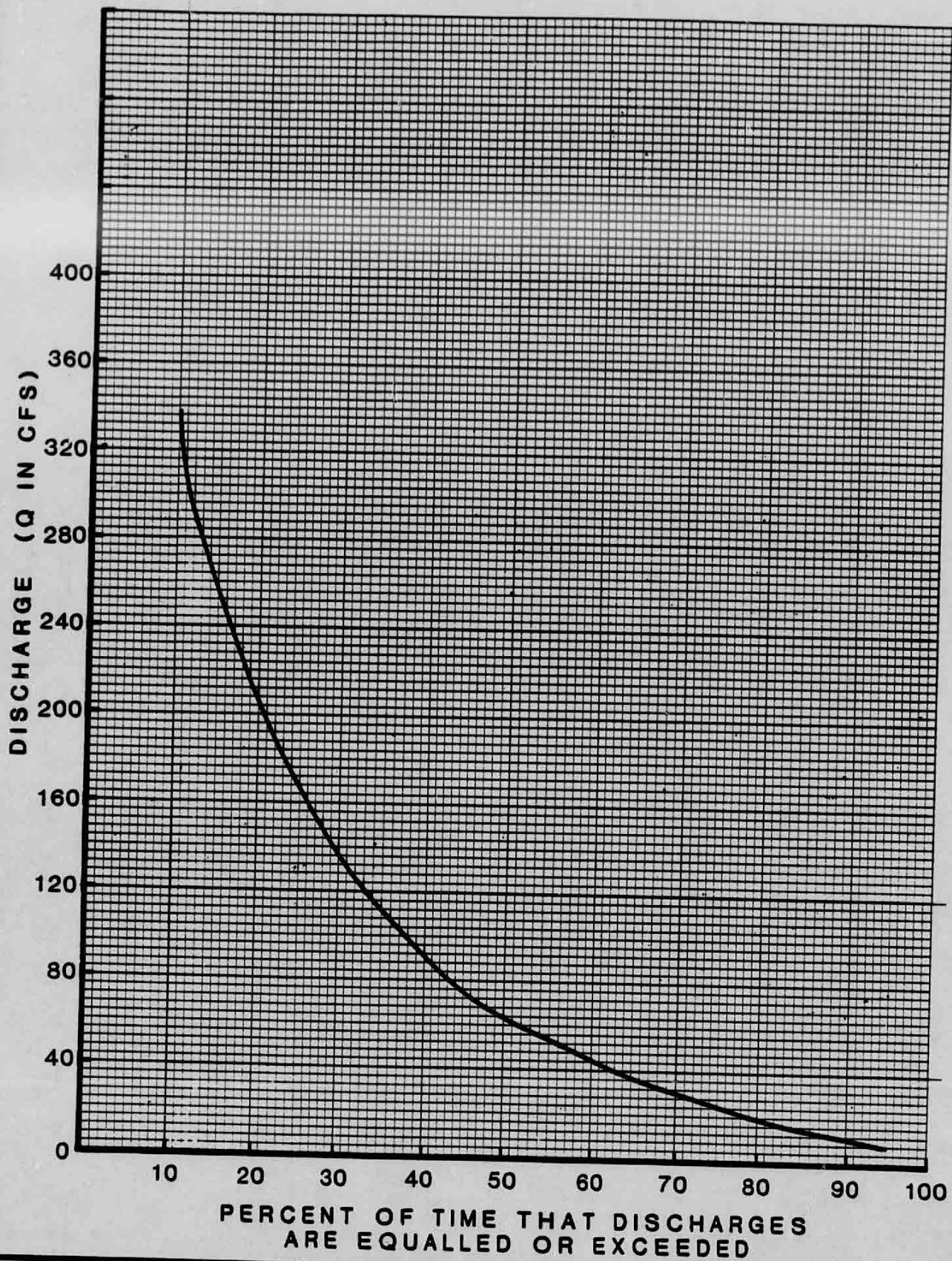
Power will be sold to a nearby public utility.

Transmission

The utility intertie will be made to an adjacent 34.5 KV transmission line via switchgear located adjacent to the proposed powerhouse.

Flow Duration Curve(see attached)

- A. Design Flow: = 210 cfs
- B. Maximum Flow: = 210 cfs
- C. Minimum Flow: = 40 cfs
- D. Flow Dedication: = 5 cfs (Timed release for daylight viewing hours at the adjacent park).



MT. IDA HYDROELECTRIC REDEVELOPMENT
 EXEMPTION APPLICATION A-13

FLOW
 DURATION
 CURVE

EXHIBIT
 A

5. OTHER ASPECTS

The project would develop power specifically for use on the utility grid, hence making additional firm power available for public utilization and be in the public interest as it displaces the consumption of foreign oil (an estimated 18,500 barrels per year).

No federally owned lands would be involved in this project. Property and water rights are under the sole ownership of Mt. Ida Associates.

The proposed redevelopment for this site would utilize a renewable energy resource which has not been harnessed for the last 20 years.

The project is totally compatible with the expressed energy goals of the State of New York in that it seeks to develop to the maximum extent feasible an indigenous and renewable resource. Development and operation of the facility would be conducted in an environmentally sound manner. The project would be a run-of-river facility.

The project would more completely utilize the flow of the Poestenkill Creek.

EXHIBIT B

III. GENERAL LOCATION MAP

EXHIBIT B

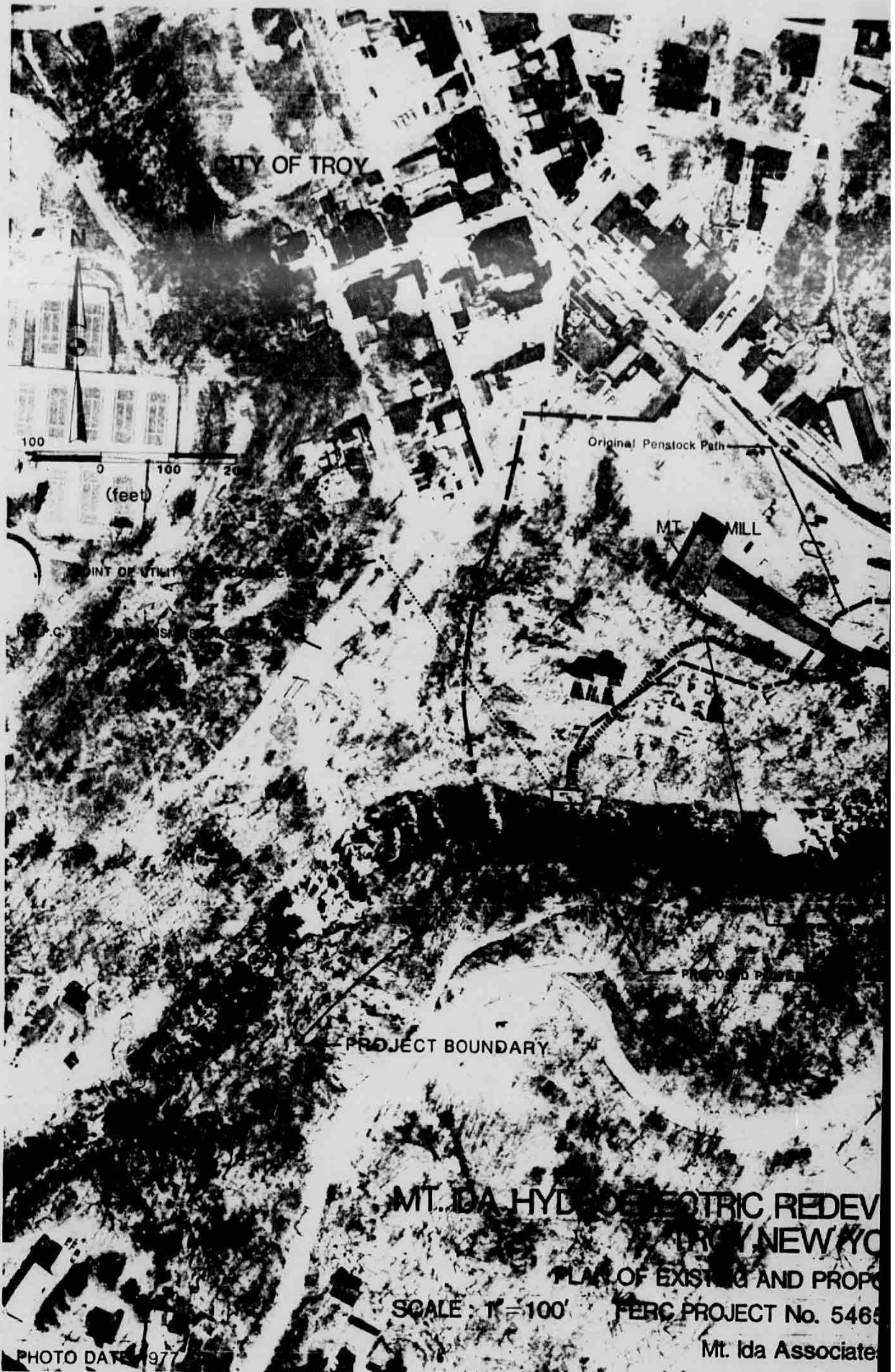
GENERAL LOCATION MAP

Mt. Ida Associates is the owner or has all the necessary real property interests in the lands involved in this development, including the ownership of the water rights, flow easements, riparian rights for the dam, reservoir, mill and lands which are the subject of this application.

EXHIBIT B

GENERAL LOCATION MAP

Mt. Ida Associates is the owner or has all the necessary real property interests in the lands involved in this development, including the ownership of the water rights, flow easements, riparian rights for the dam, reservoir, mill and lands which are the subject of this application.



CITY OF TROY



Original Penstock Path

MT. MILL

POINT OF UTILITY

PROJECT BOUNDARY

PROPOSED POWER

MT. IDA HYDROELECTRIC REDEVELOPMENT
 TROY, NEW YORK

PLAN OF EXISTING AND PROPOSED

SCALE : 1" = 100'

FERC PROJECT No. 5465

PHOTO DATE: 1977

Mt. Ida Associates



EXHIBIT B

SHEET 1

J&F DRAWING NO. 5218

DATE:

REV.:

BY:

SCALE: 1" = 100'
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IT IS A REDUCED PRINT
SCALE ACCORDINGLY

EXISTING
AND
PROPOSED
FACILITIES

MT. IDA
HYDROELECTRIC
REDEVELOPMENT
PROJECT

TROY, NEW YORK

J. Kenneth F.aser, and Associates, P.C., Consulting Engineers

DEVELOPMENT PROJECT
EXISTING FACILITIES

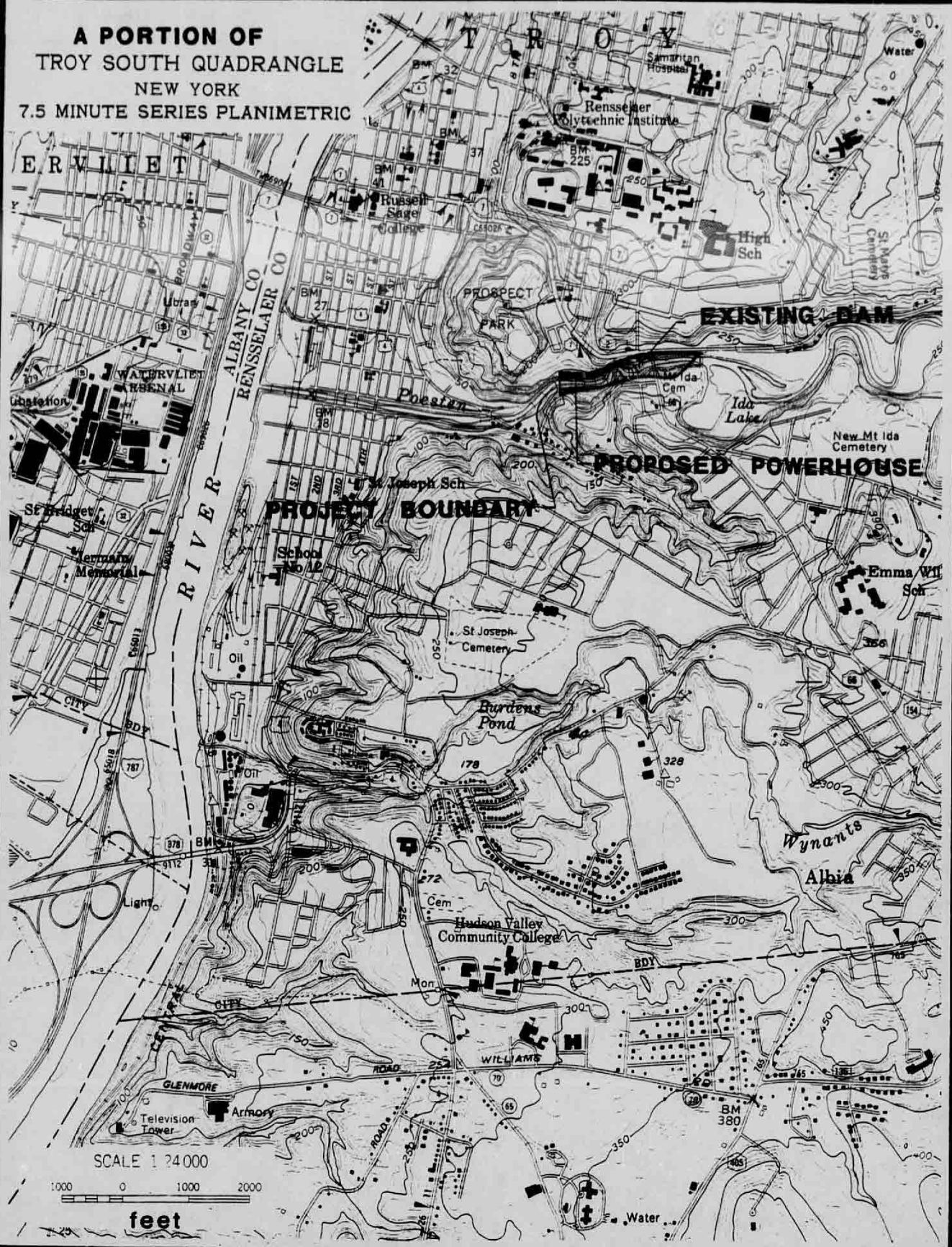
Exhibit 4 Drawing 4-3

THIS DRAWING IS A PART
OF THE APPLICATION FOR
EXEMPTION MADE BY THE
UNDERSIGNED THIS THE
26th DAY OF APR. 82

By: *[Signature]*

Title: OWNER

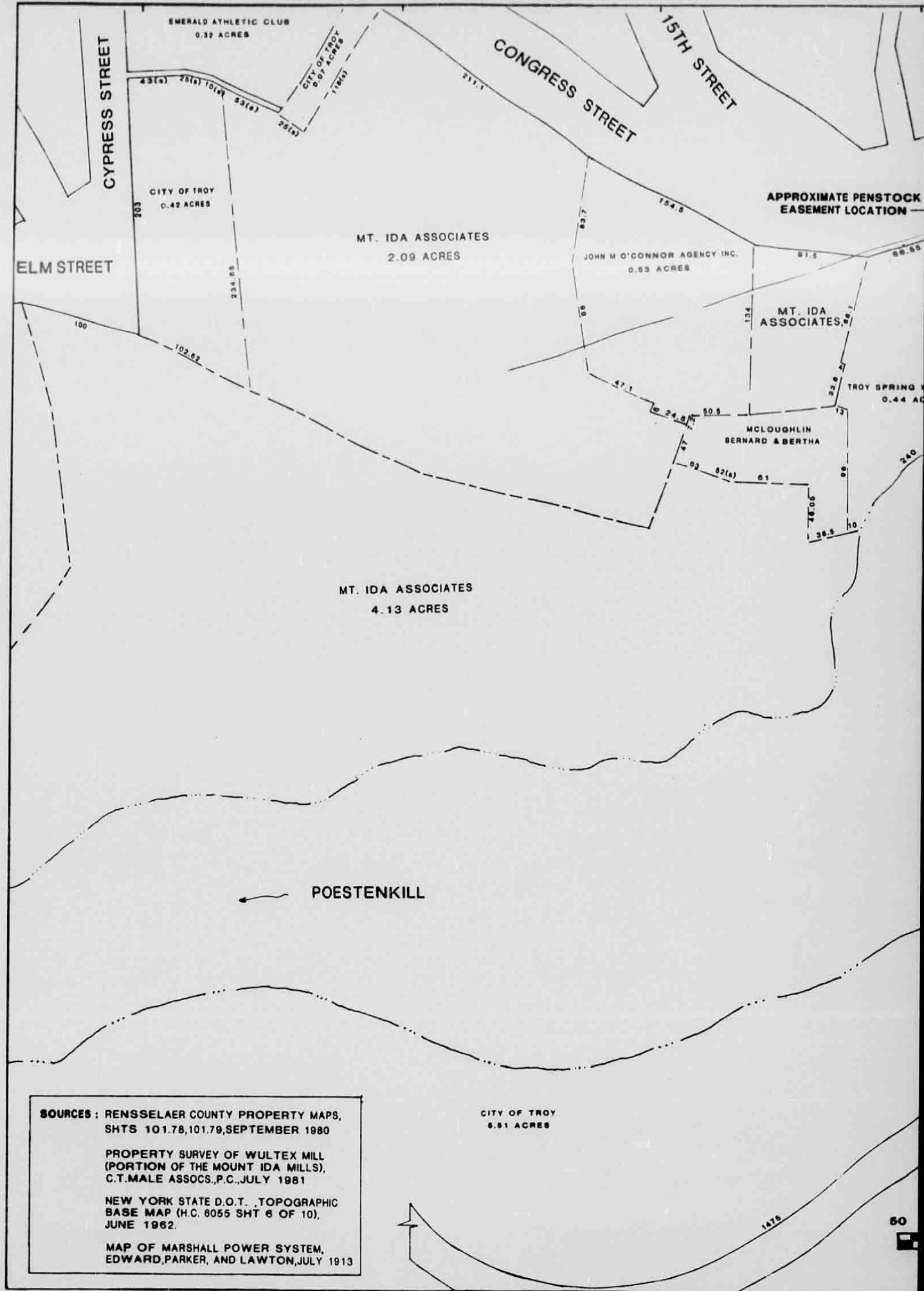
**A PORTION OF
TROY SOUTH QUADRANGLE
NEW YORK
7.5 MINUTE SERIES PLANIMETRIC**



**MT. IDA HYDROELECTRIC
REDEVELOPMENT PROJECT
TROY, NEW YORK**

LOCATION MAP

**EXHIBIT
B
SHEET
2**



SOURCES : RENSSELAER COUNTY PROPERTY MAPS,
 SHTS 101.78,101.79,SEPTEMBER 1980

PROPERTY SURVEY OF WULTEX MILL
 (PORTION OF THE MOUNT IDA MILLS),
 C.T.MALE ASSOCS.P.C.,JULY 1981

NEW YORK STATE D.O.T. TOPOGRAPHIC
 BASE MAP (H.C. 8055 SHT 8 OF 10),
 JUNE 1962.

MAP OF MARSHALL POWER SYSTEM,
 EDWARD,PARKER, AND LAWTON,JULY 1913

CITY OF TROY
 6.51 ACRES

**EXHIBIT B
SHEET 3**

JKF DRAWING NO.

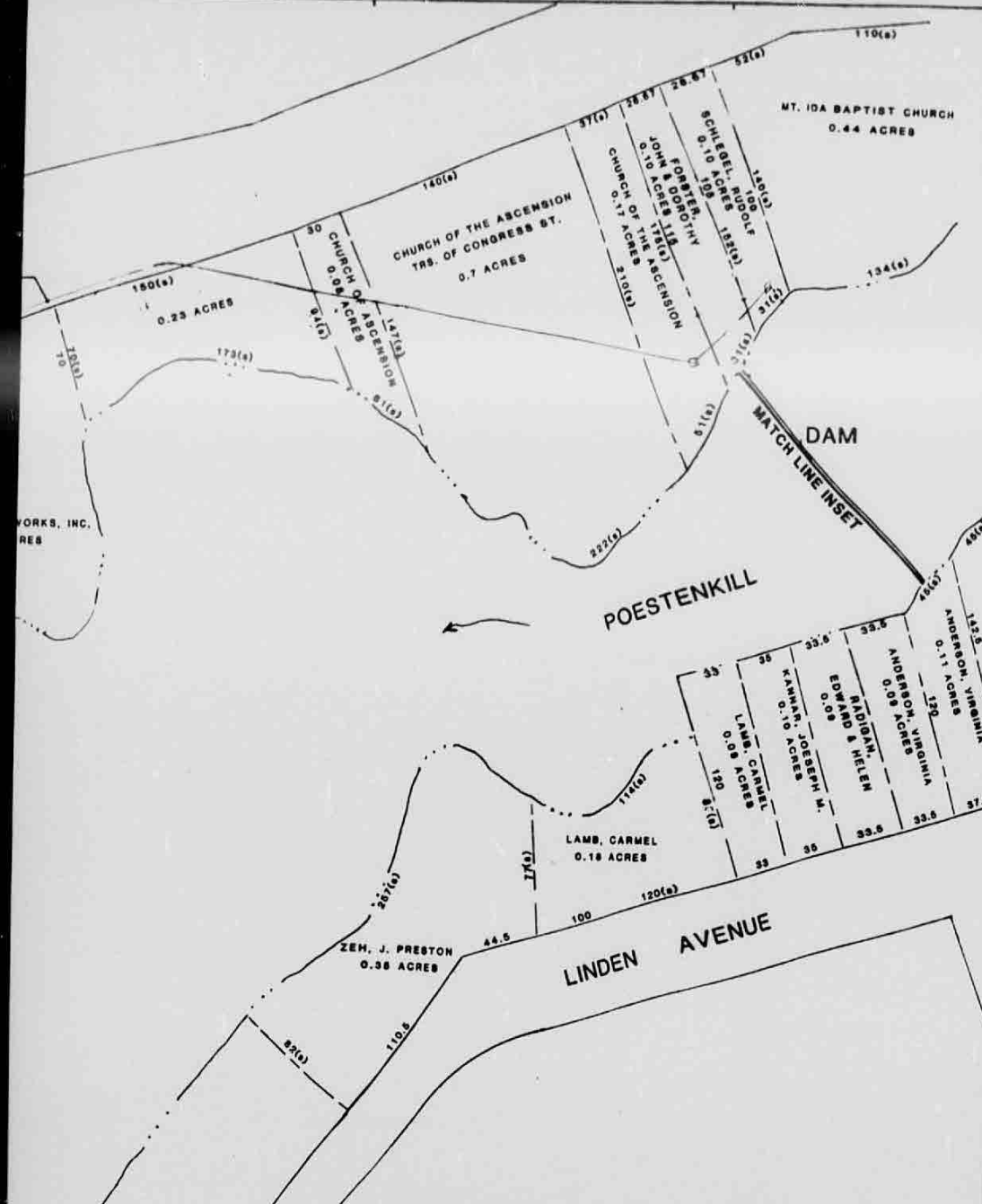
DATE:

REV.:

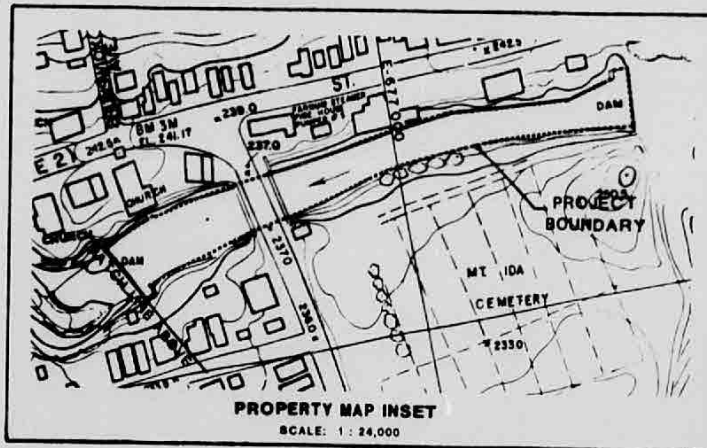
BY:

SCALE: 1" = 50'
IF THIS IS NOT 22"x34"
IT IS A REDUCED PRINT
-SCALE ACCORDINGLY

PROPERTY MAP



NOTE: This map does not represent a field survey, but is a compilation of information obtained from the sources indicated.



PROPERTY MAP INSET
SCALE: 1: 24,000

**MT. IDA
HYDROELECTRIC
REDEVELOPMENT
PROJECT**

TROY, NEW YORK

J. Kenneth Fraser and Associates, P.C., CONSULTING ENGINEERS

THIS DRAWING IS A PART
OF THE APPLICATION FOR
EXEMPTION MADE BY THE
UNDERSIGNED THIS THE
20th DAY OF APR. 82

By: William B. J.
Title: OWNER

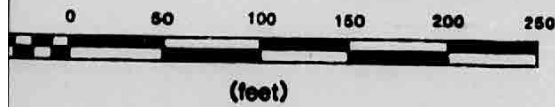


EXHIBIT E

4. ENVIRONMENTAL REPORT

EXHIBIT E
ENVIRONMENTAL REPORT

1. DESCRIPTION OF PROPOSED PROJECT

1.0 General Description

2. DESCRIPTION OF ENVIRONMENTAL SETTING

- 2.0 Project Location
- 2.1 Surrounding Land Use
- 2.2 Vegetative Cover
- 2.3 Fish and Wildlife Resources
- 2.4 Rare and Endangered Species
- 2.5 Water Quality
- 2.6 Hydrological Information
- 2.7 Recreational Utilization
- 2.8 Historic and Archaeological Resources
- 2.9 Scenic and Aesthetic Resources

3. ANTICIPATED ENVIRONMENTAL IMPACTS AND
MITIGATING MEASURES

3.0 General

3.1 Construction Impacts

- 3.1.1 Clearing of Vegetation
- 3.1.2 Dredging of Sediment
- 3.1.3 Renovation of Existing Dam
- 3.1.4 Excavation
- 3.1.5 Socioeconomic
- 3.1.6 Fish and Wildlife
- 3.1.7 Water Quality
- 3.1.8 Recreation Utilization
- 3.1.9 Scenic and Aesthetic Resources
- 3.1.10 Historic and Archaeological Resources

3.2 Operation Impacts

- 3.2.1 Vegetative Cover
- 3.2.2 Fish and Wildlife
- 3.2.3 Water Quality (and Quantity)
- 3.2.4 Recreational Utilization
- 3.2.5 Socioeconomic
- 3.2.6 Historic Resources
- 3.2.7 Aesthetic Impact
- 3.2.8 Transmission Corridors

EXHIBIT E
ENVIRONMENTAL REPORT

4. AGENCY CONSULTATION AND COMMENTS

- 4.1 Description of Procedures
- 4.2 List of Agencies Contacted
- 4.3 Agency Comments

EXHIBIT E
ENVIRONMENTAL REPORT

1. DESCRIPTION OF PROPOSED PROJECT

1.0 General Description

The proposed development involves both the rehabilitation of existing hydro facilities and construction of new hydroelectric facilities on the Mt. Ida site in the Poestenkill Gorge. The Mt. Ida project will upgrade and utilize the existing timber dam and 525 foot rock tunnel and gatehouse. A new steel penstock will extend approximately 775 feet from the intake at the gatehouse to the new powerhouse. Rehabilitation work includes minor repair to the dam and gatehouse at the forebay, renovation of the existing rock tunnel and cleaning the area upstream of the dam of accumulated debris. Construction of new hydroelectric facilities would include excavation and construction of an at-grade steel penstock and construction of a new powerhouse. The Mt. Ida project will be operated as a run-of-river facility.

2. DESCRIPTION OF ENVIRONMENTAL SETTING

2.0 Project Location

The Mt. Ida site is located on the Poestenkill in the City of Troy, Rensselaer County, New York (See Exhibit B-2 - USGS Quadrangle "South Troy".)

Latitude: N 42°-44'-42"

Longitude: W 73°-41'-43"

1980 Census of Population for Rensselaer County is 151,966¹ (See Appendix for detailed census data).

1980 Census of Population for the City of Troy, New York is 56,638¹ (See Appendix for detailed census data).

City of Troy Unemployment Rate (Annual Averages):²

<u>Year</u>	<u>Rate</u>
1980	6.8%
1979	6.0%
1978	6.9%
1977	8.5%
1976	9.0%
1975	8.7%
1974	5.3%

1 1980 Census of Population, New York State Department of Commerce.

2 New York State Department of Labor.

2.1 Surrounding Land Use

The long industrial usage of the Poestenkill Gorge and its subsequent degradation has played a major role in the development of the "Ida Hill" neighborhood. Up until 1962, when the last mill ceased operation, the area surrounding the Gorge was a prosperous community which was partially separated from downtown Troy by the steep slopes of the Hudson River Valley. Within this community, commercial areas, residential areas, (both single and multi-family), schools, churches, and various community organizations prospered. The growth of this area was also influenced by the expansion and recognition of Rensselaer Polytechnic Institute to the north.

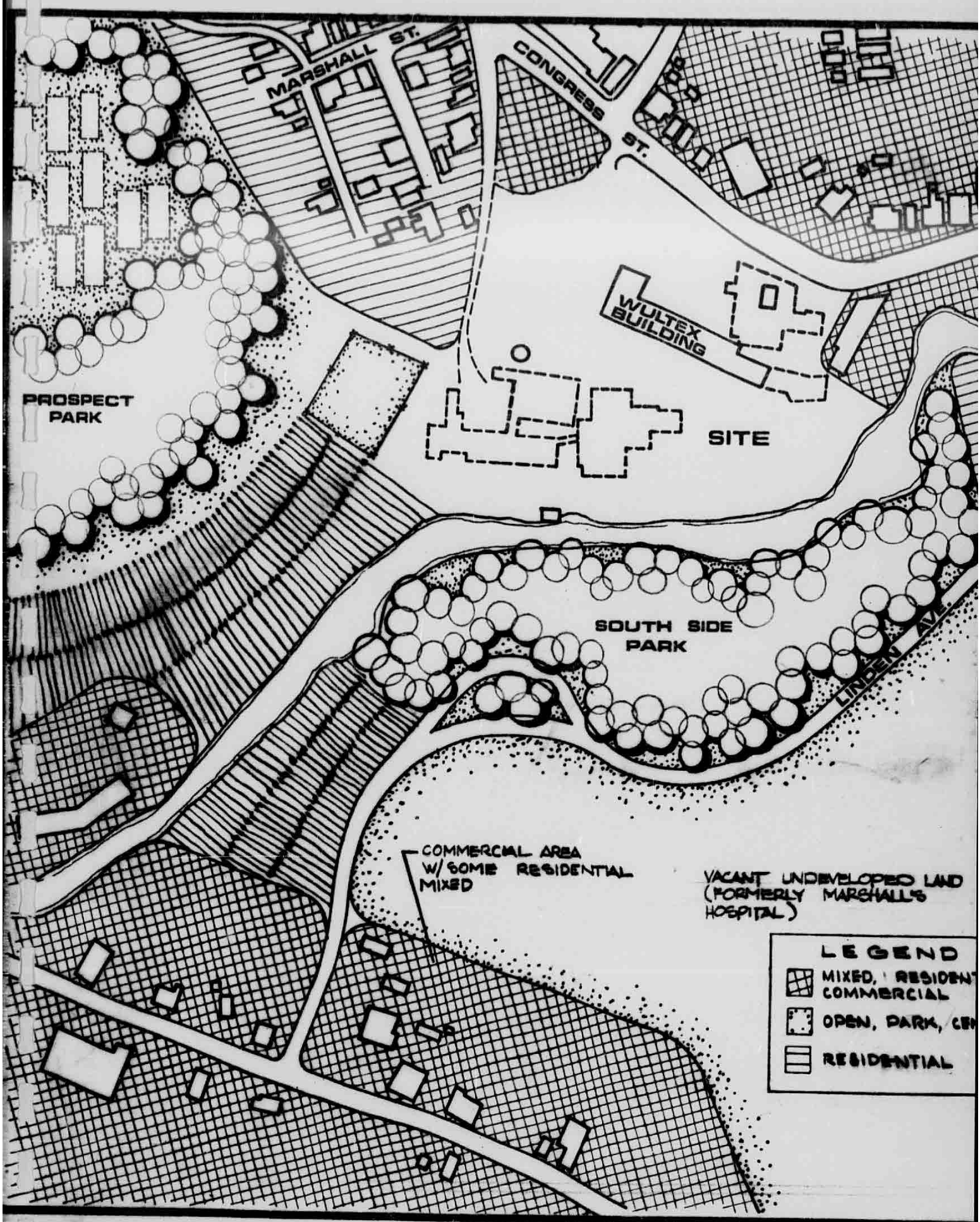
Since the demise of industrial operations in the Poestenkill Gorge, many residents have left the area and much of the integrity of the "Ida Hill" neighborhood is gone.

The current land uses surrounding the Mt. Ida site still exhibit some of the character of the previous era. (See Exhibit E-Sheet 1.)

Congress Street (Route 2), which borders the site to the north is a major connector from downtown Troy to "Ida Hill" and eastward to predominately residential districts. Congress Street is a mixture of commercial, residential and institutional uses indicating its significance as a community center.

The area to the west of the site is predominately city-owned. The land directly adjacent is very steep undeveloped woodland with the exception of a small cemetery. Further west is Prospect Park; a significant city park overlooking downtown Troy.

A small residential area, consisting mostly of neglected wood frame structures is located to the northwest (south of Congress Street).

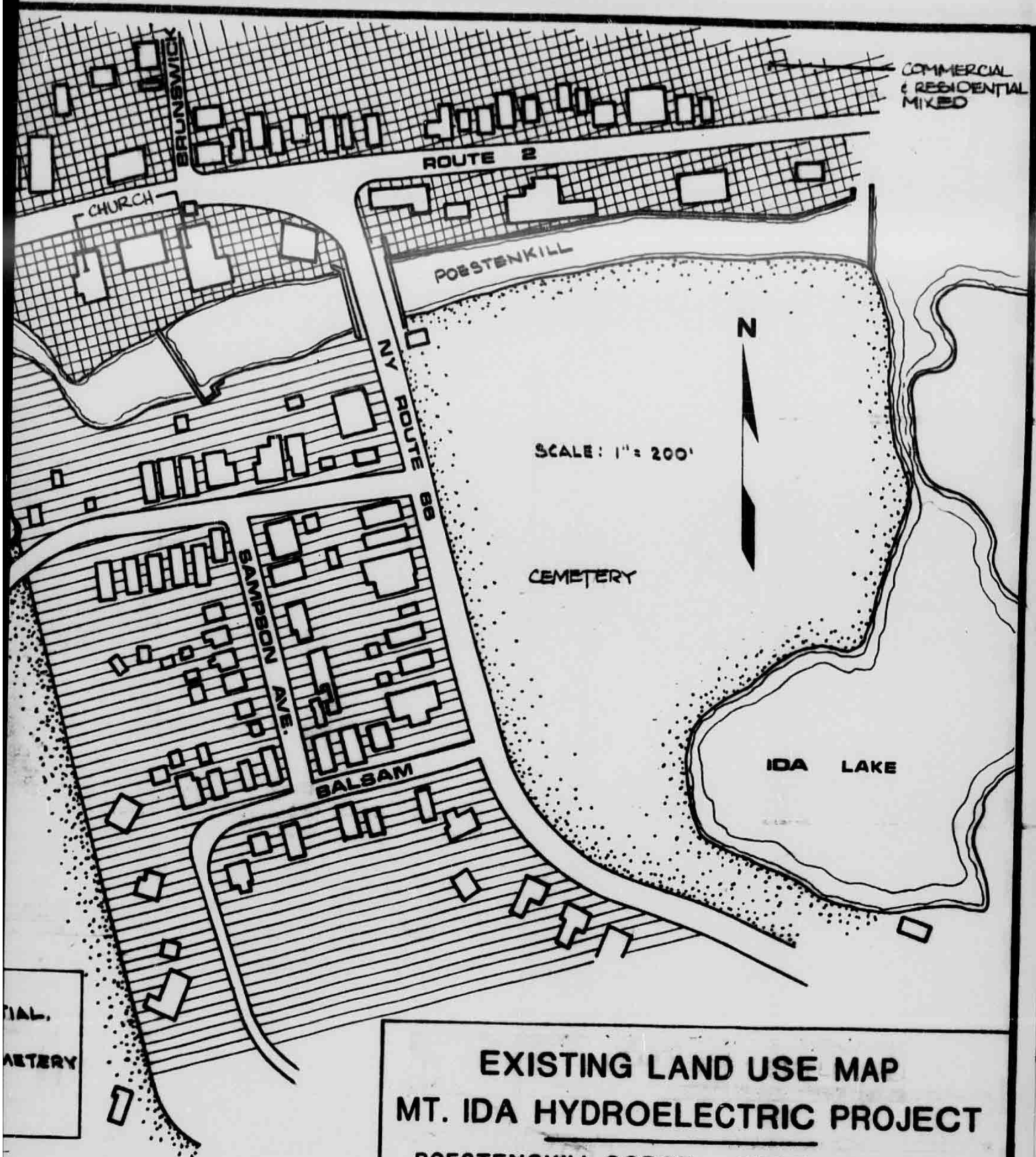


COMMERCIAL AREA
W/SOME RESIDENTIAL
MIXED

VACANT UNDEVELOPED LAND
(FORMERLY MARSHALL'S
HOSPITAL)

LEGEND

-  MIXED, RESIDENTIAL
COMMERCIAL
-  OPEN, PARK, CEM
-  RESIDENTIAL



COMMERCIAL
& RESIDENTIAL
MIXED

ROUTE 2

CHURCH

POESTENKILL

N

SCALE: 1" = 200'

NY
ROUTE
88

CEMETERY

SAMPSON
AVE.

BALSAM

IDA LAKE

TIAL.
BATTERY

EXISTING LAND USE MAP
MT. IDA HYDROELECTRIC PROJECT
 POESTENSKILL GORGE, TROY, NEW YORK

EXHIBIT E
SHEET 1

A major residential district is located to the southeast (south of the Poestenkill) along Pawling Avenue and the eastern end of Linden Avenue.

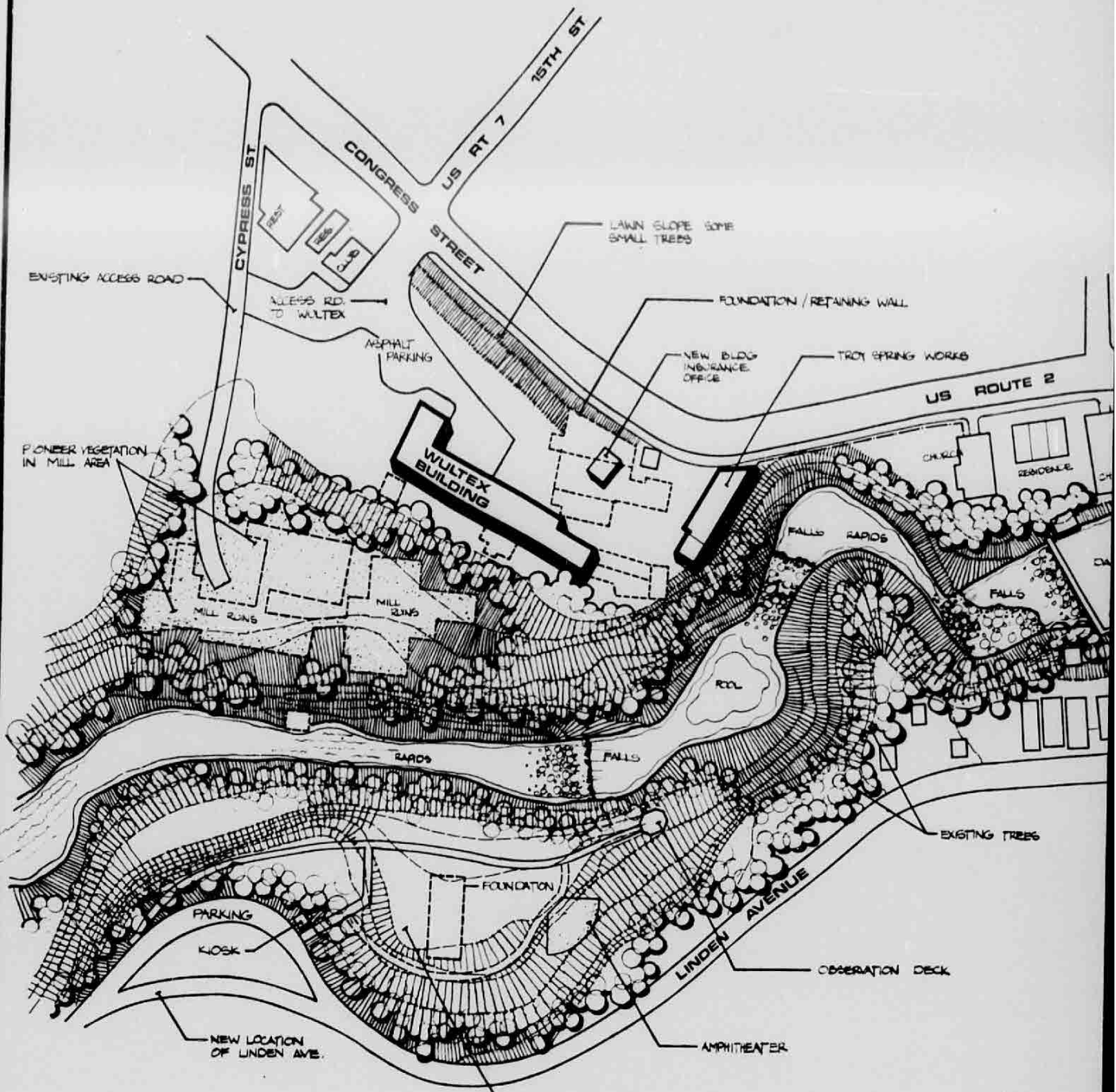
The land to the south across the Poestenkill is a city-owned park. The "South Side Park" was constructed in the mid-1970's in an effort to provide access into the gorge. The park was developed by the City of Troy in coordination with the Hudson-Mohawk Industrial Gateway. The park provides a parking area, a trail system and stream overlook, a small amphitheatre, and a summarized industrial history of the Poestenkill Gorge Industrial Area. The main purpose and theme of the facility is the industrial history of the gorge. All of the mill ruins and existing buildings are visible from the park. Vandalism has been a persistent problem in the park. The outlook deck has been burned twice, and the signage, railing, etc. have been damaged. There are no active mills or hydropower facilities remaining on the Poestenkill below the Mt. Ida site.

2.2 Vegetative Cover

The Mt. Ida site has been an active industrial site for many decades. Consequently, the soil characteristics have been altered severely. The existing soils are covered or mixed with cinders, gravel and crushed rock. Bedrock is very shallow and rock outcrops and boulders are common.

The vegetative cover can best be categorized into three zones: A) steep exposed rock slopes; b) second succession woodland, and C) pioneer species (See Exhibit E-Drawing 2). These zones are described below:

- A. The Poestenkill Gorge exhibits excessively steep banks (in many cases these rock faces form vertical walls). The stream banks and rock slopes are stable and are not subject to erosion problems. The lack of soil and steep slopes prohibit vegetative growth in these areas.



**POESTENKILL GORGE
 SOUTH SIDE PARK & TRAIL**

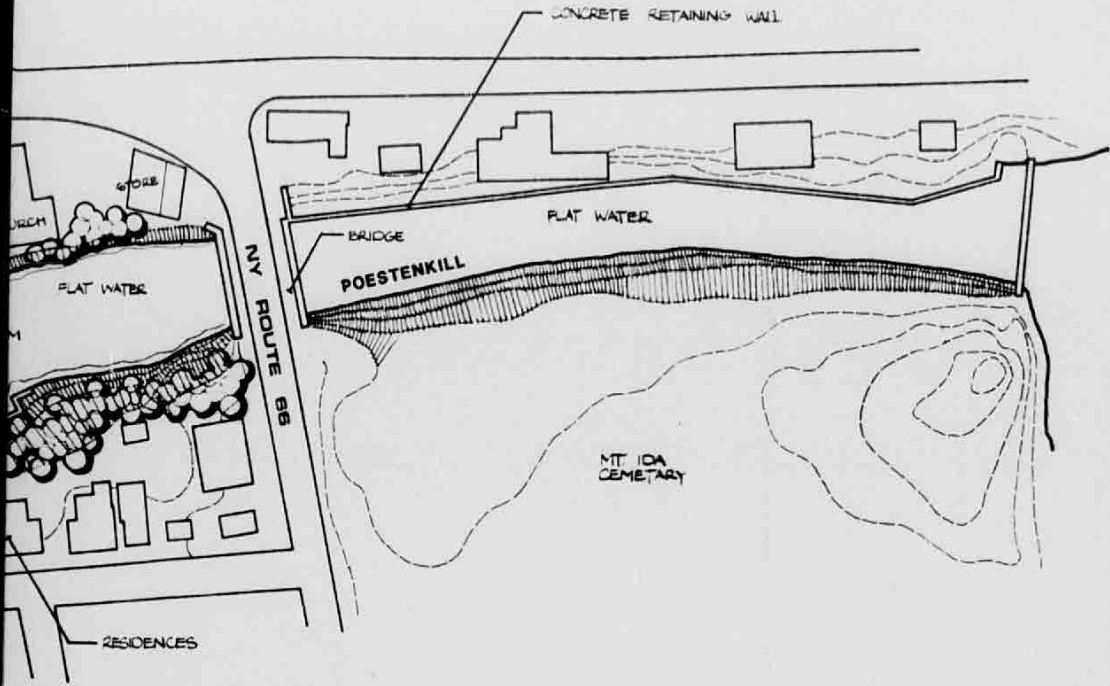
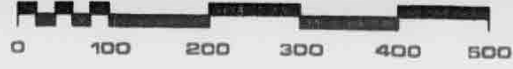
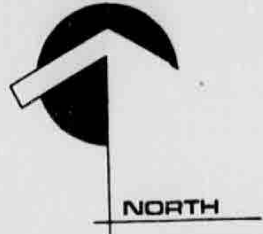
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SITE ANALYSIS
(EXISTING CONDITIONS)

KEY:


-  STEEP ROCK SLOPES
-  WOODLAND
-  STEEP WOODED SLOPES
-  FLUENEE VEGETATION

MT. IDA
HYDROELECTRIC
REDEVELOPMENT
PROJECT

TROY, NEW YORK

J. Kenneth Fraser and Associates, P.C., Consulting Engineers

THIS DRAWING IS A PART
OF THE APPLICATION FOR
EXEMPTION MADE BY THE
UNDERSIGNED THIS THE
26th DAY OF APR. 82

By: 
Title: OWNER

- B. Second succession vegetation species have become established on more fertile slopes and on inactive mill sites which were abandoned earlier than the Manning Paper Co. (retired in 1962). The major species of trees in this area range in size from approximately 4-16 inches in caliper and include red maple (*Acer rubrum*), American elm (*Ulmus americana*), white ash (*Fraxinus americana*), box elder (*Acer negundo*), tree of heaven (*Alanthus altissima*), northern red oak (*Quercus borealis*), black cherry (*Prunus serotina*), and poplar (*Populus sp.*). The understory consists mostly of grasses, weeds and some brush (See C. below).
- C. The portions of the site which were occupied by the Manning Paper Company are now in ruins and are becoming overgrown by weeds, brush and vigorous pioneer tree species. The major species in this area are staghorn sumac (*Rhus fragrantissima*), box elder (*Acer negundo*), tree of heaven (*Alanthus altissima*), poplar (*Populus sp.*), and dogwood (*Cornus sp.*).

2.3 Fish and Wildlife Resources

The wildlife resource of the Poestenkill Gorge is limited because of the past industrial uses, disturbances on the site itself, and the surrounding industrial sites. The urban location also limits wildlife activity. The limited wildlife using the site would be those species expected to be commonly found in this area -- small mammals and birds.

There are no apparent nesting sites for raptorial birds in the Poestenkill Gorge.

The resident fishes expected^{1,2} in this section of the Poestenkill include brook trout (rare), brown trout (rare), smallmouth and largemouth bass, chain pickerel, carp, suckers, bullhead and a wide variety of shiners and other minnows. Additional information has been requested from the New York State Department of Environmental Conservation and the U. S. Fish and Wildlife Service.

The Poestenkill¹ is stocked annually with brown and brook trout by the New York State Department of Environmental Conservation. The sections of the stream included in the stocking program are located at White Bridge (approximately 6 miles above the Mt. Ida site), and at East Poestenkill (approximately 4 miles upstream of the site). These areas would remain unaffected by this proposal. Additional information has been requested from both the New York State Department of Environmental Conservation and the U. S. Fish and Wildlife Service.

No anadromous fishes exist in the Poestenkill. The Poestenkill Gorge falls present an unpassable obstacle to fish movement. This impass also prohibits contaminated fish in the Hudson River from migrating upstream.

The section of the Poestenkill from the gorge to its confluence with the Hudson, 0.8 miles downstream, is believed to be a nursery and spawning area for the Hudson River.

1 Telephone conversation with John Haskins, Conservation Officer, New York State Department of Environmental Conservation. February 17, 1982.

2 Meeting with Michael Storonsky, New York State Department of Environmental Conservation, Division of Fish and Wildlife. January 18, 1982.

2.4 Rare and Endangered Species

Neither unique habitats nor rare and endangered species are known to exist on the site.

2.5 Water Quality

The New York State Department of Environmental Conservation has classified this section of the Poestenkill and below as Class "C" water. This classification is used for waters which are suitable for fishing and all other uses except as a source of water supply for drinking, culinary or food processing purposes and primary contact recreation.

The New York State Environmental Conservation Law Section 701, establishes the minimum dissolved oxygen level for Class "C" waters at 4 mg/l with a 5 mg/l average.

Dissolved oxygen levels are expected to be high in the Poestenkill Gorge because of the dam, falls and rapids in this reach of the stream. Since the Poestenkill is not used for waste treatment and this section is not classified as trout water, dissolved oxygen does not presently pose a major concern.³

The Applicant will cooperate with the New York State Department of Environmental Conservation to obtain accurate and detailed testing for dissolved oxygen content as required in an effort to define and mitigate impacts, if any, imposed by the proposed hydroelectric facility once operation is commenced.

Additional information and communication has been requested from the New York State Department of Environmental Conservation, Division of Pure Waters.

3

Conversations with Richard Draper, New York State Department of Environmental Conservation, Division of Pure Waters, January 18, 1982.

2.6 Hydrological Information

The mean annual flow of the Poestenkill at the Mt. Ida site is 138 cubic feet per second. The drainage area at the Mt. Ida site is approximately 94.1 square miles. Average monthly flows are:

January	190 cfs
February	89
March	331
April	330
May	174
June	70
July	38
August	50
September	116
October	89
November	79
December	99

The maximum flow at the Mt. Ida site for the period of record is estimated at 12,500 cfs. The minimum flow estimate for the same period is 0.6 cfs.

The seven-day low flow with a return period of 10 years at the Mt. Ida site is 2.9 cfs.

A flow duration curve is provided in Exhibit "A."

This abstract is based on a USGS gauge located on the Poestenkill near Troy, New York. This gauge has a period of record from 1923 to 1968 and an associated drainage area of 89.4 square miles.

2.7 Recreational Utilization

The major recreational utilization of the Poestenkill Gorge is the South Side Park with access and parking on Linden Avenue. The park offers passive recreation with a short trail, overlook and amphitheatre. The overlook vista includes the historic industrial sites, the stream and the waterfalls in the gorge.

Although access is restricted in the gorge by topography, it is assumed that the Poestenkill provides fishing and swimming potential. Access to the Poestenkill Gorge is only possible from the southwest (currently provided at South Side Park). Access to the Poestenkill is extremely dangerous from the north, Mt. Ida site.

Dams above and falls within the gorge prohibit boating in this portion of the Poestenkill.

2.8 Historic and Archaeological Resources

The Poestenkill Gorge is listed on the National Register of Historic Places Inventory as a Historic District.⁴ (See Exhibit E-Drawing 3 and Appendix B-4).

The Poestenkill Gorge has a long and extensive history as an industrial site. The significance of these industries have played a major role in the development of Troy, and in particular, the Mt. Ida community. The past decade or more, the area has received much attention from historians, historic groups, and various public agencies. Several reports and limited archaeological investigations have been prepared. The primary organizations exhibiting interest in the Poestenkill Gorge have been the Hudson-Mohawk Industrial Gateway, the Hudson-Mohawk Urban Cultural Parks Commission, the City of Troy, and the New York State Division of Historic Preservation.

4

Conversations with Raymond Smith, Program Analyst, New York State Division of Historic Preservation. (See also, "National Register of Historic Places Inventory - Nomination Form" in Appendix.)

The first evidence of a hydropowered mill in the Poestenkill Gorge⁵ was as early as the 1660's. Throughout the 1700's, a variety of small mills were operating in the gorge below the lower section of the gorge (1850) incorporating earlier mills, was the Griswold Wire Works (See Exhibit E-Drawing 3). The Griswold Works was situated along the north bank of the stream. A wooden bridge spanned the Poestenkill at the east end of the mill, providing access to tenement housing on the south side known as "Hoboken Hollow" and beyond to Linden Avenue.

The only remains of these early mills are partial sections of stone foundations of "Hoboken Hollow" and the Griswold Wire Works. The South Side Park is located on the site of "Hoboken Hollow." Floods resulting from a hurricane in 1938 destroyed most of these structures and subsequent flooding and vandalism have practically erased all evidence of the Griswold complex.

The vast power of the Poestenkill Gorge was not fully utilized until 1840, when the Marshall Power System was developed. (See Exhibit E-Drawing 3). The system consisted of a timber dam and gatehouse above the gorge, approximately 525 feet of rock tunnel conduit (approximately 4 feet x 5 feet) circumventing the gorge and the Mt. Ida Cotton Factory (Wultex Building). The Mt. Ida Mill utilized hydromechanical power provided by the Marshall hydropower system. Because of the efficiency of the system and the head offered by the gorge, several additional mills were constructed below the Mt. Ida Cotton Factory; all interconnected to the hydropower system by a series of penstocks. Directly below the Mt. Ida Mill were the Manning & Howland Paper Mill (1846), Tompkins Brothers Machine Works (1846), and the Griswold Wire Works (1850). Two additional mills were also constructed on Congress Street above the

5

Bartholomew T. Thibadeau, "A History of the Development of Water Power for the Mt. Ida-Poestenkill Gorge Industrial Complex." 1975.

Mt. Ida Cotton Factory, which also utilized the Marshall's hydropower system. The Kellogg Machine Wire Mill (1850) and later the Troy File Works (currently the Troy Spring Works) were the last mills to be added to the system.

The Marshall hydropower system ceased operation in 1962, when the last mill (Manning Paper Company) was closed. While in operation, Manning added a small hydroelectric powerhouse (approximately 1920) at the low end of the penstock on the site of the former Griswold Wire Works Mill.

Other mills and sites are listed within the Poestenkill Gorge Historic District below the Mt. Ida site, including the Ruff Flour Mill, the Carter Planning Mill, and the Marshall Infirmary Steam Plant. These mills have been destroyed and the foundation ruins will not be affected by the Mt. Ida project.

Only two of the mills are standing today; the Mt. Ida Cotton Factory (Wultex Bldg.) and the Troy File Works (Troy Spring Works). The Troy Spring Works is a structurally sound brick building and is occupied. The Wultex Building is owned by Mt. Ida Associates and will be renovated and remodeled for housing.

The remaining four mills have been destroyed. The Mt. Ida site is cluttered with ruins, foundations, remains of penstocks and turbines, various machinery parts and debris. The site and ruins have been deteriorating by natural causes, vandalism and scavenging. The site poses a safety hazard because of its current condition. (See Exhibit E-Drawing 3 for building inventory.)



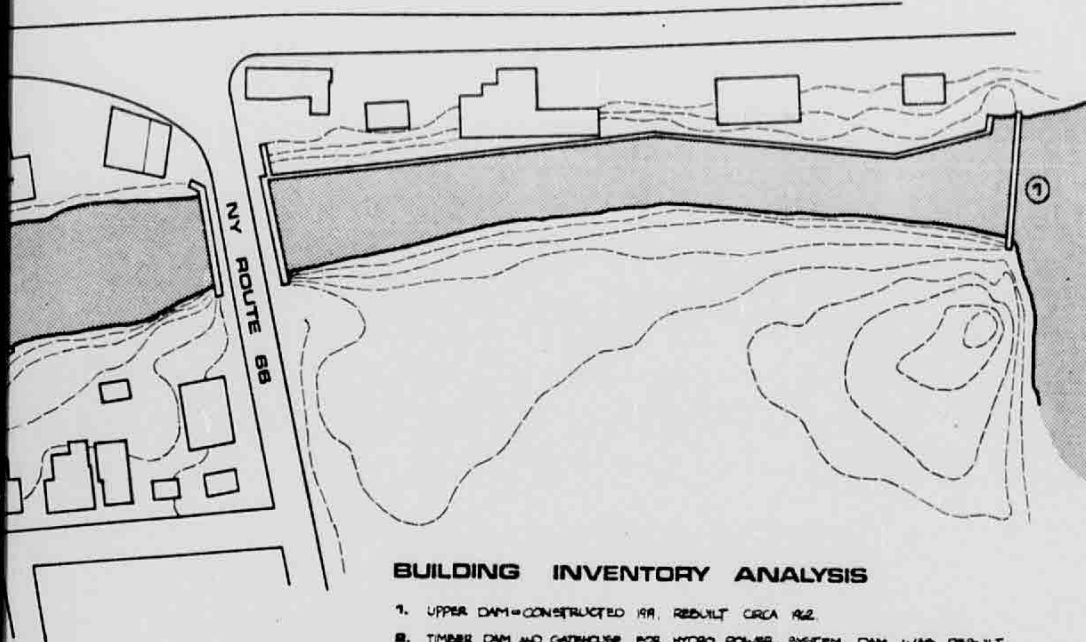
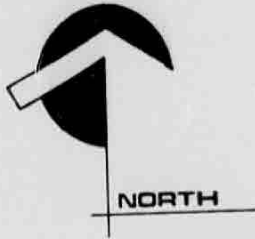
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BUILDING INVENTORY ANALYSIS

1. UPPER DAM=CONSTRUCTED 189, REBUILT CIRCA 192.
2. TIMBER DAM AND GATEHOUSE FOR HYDRO POWER SYSTEM DAM WAS REBUILT IN 1926 AND IS IN GOOD CONDITION MINOR REPAIR IS REQUIRED. THE GATEHOUSE IS INOPERATIVE.
- 3A. MARSHALLS HYDROPOWER SYSTEM (UPPER PORTION) IS A TUNNEL CUT THROUGH SHALE BEDROCK.
- 3B. MARSHALLS HYDROPOWER SYSTEM (LOWER PORTION) IS AN ABOVE GROUND STEEL PENSTOCK - SOME SECTIONS INCLUDING VANDALIZED TURBINES ARE INTACT BUT UNUSABLE.
4. TROY SPRING WORKS (FORMERLY TROY FILE WORKS) CIRCA 1870 BUILDING IS OCCUPIED AND IS STRUCTURALLY SOUND. BUILDING IS NOT LINKED TO MARSHALLS HYDROPOWER SYSTEM.
5. W.M.P KELLOGG MFG CO SITE CIRCA 1850 THE BUILDING HAS BEEN DESTROYED BY FIRE SOME FOUNDATIONS REMAIN. PROPERTY EASEMENT IS OWNED BY MT. IDA ASSOCIATES A ONE STORY BUILDING HAS BEEN CONSTRUCTED ON THE SITE CIRCA 1968.
6. WALTER BUILDING (FORMERLY MT. IDA COTTON FACTORY) CONSTRUCTED CIRCA 1840 BUILDING IS STRUCTURALLY SOUND AND IS BEING RENOVATED FOR RESIDENTIAL USE. EARLY WOOD FRAME ADDITIONS HAVE BEEN DESTROYED BY FIRE.
7. J.A MANNING PAPER CO CONSTRUCTED CIRCA 1846 & CEASED OPERATIONS IN 1922 THE BUILDINGS WERE DESTROYED BY FIRE THE RUINS ARE NOT SOUND AND POSE A SAFETY HAZZARD.
8. TOMPKINS BRASS MACHINE WORKS CIRCA 1846 DESTROYED BY FIRE THE RUINS ARE NOT SOUND AND POSE A SAFETY HAZZARD.
9. EXISTING POWERHOUSE (J.A MANNING HYDROELECTRIC FACILITY) EXISTING RUINS ARE STABLE.
10. EXISTING ACCESS RD TO MANNING PAPER CO. (POOR CONDITION)
11. SITE OF GRISWOLD WIRE WORKS BUILDING CIRCA 1879 COMPLETELY DESTROYED IN 1926 EXCEPT ONLY PARTIAL SECTIONS OF FOUNDATION REMAIN EXPOSED BRIDGE OVER THE ROOFKILL MILL HOUSING STRUCTURE ON THE SOUTH (HOBOKEN HOLLOW) HAVE BEEN COMPLETELY DESTROYED.

HISTORIC MILL STRUCTURES

MT. IDA
 HYDROELECTRIC
 REDEVELOPMENT
 PROJECT
 TROY, NEW YORK

J. Kenneth Fraser and Associates, P.C., Consulting Engineers

THIS DRAWING IS A PART
 OF THE APPLICATION FOR
 EXEMPTION MADE BY THE
 UNDERSIGNED THIS THE
 26th DAY OF APR. 82

By: William P. [Signature]

Title: _____ OWNER

2.9 Scenic and Aesthetic Resources

The falls of the Poestenkill Gorge provide a focal point for the South Side Park. The lower falls, pool and rock cliffs are visible from the overlook.

Views into the gorge are limited because of the steep cliffs and the meandering channel. The only views are from the South Side Park and at the very edge of the gorge (looking down). The gorge is not visible in any direction from the surrounding city streets.

The Poestenkill Gorge and Falls is a visual resource; however, lack of vistas and viewing points limit its potential.

The Mt. Ida site and its associated ruins provide the theme and views from the South Side Park. Maps and drawings of the historic mills provide descriptions of a once flourishing complex now in ruins.

3. ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATING MEASURES

3.0 General

The environmental impacts related to the renovation and construction of the Mt. Ida hydroelectric facility will be minor. All major structures are existing, including the dam, access road to the site, gatehouse and upper penstock section (rock tunnel). All construction and operation procedures will be performed and scheduled to minimize potential environmental impacts.

3.1 Construction Impacts

Construction of the Mt. Ida Hydroelectric Facility will require two years, from ground-breaking to completion. The major construction phases include repair and renovation of the gatehouse, construction of a new section of penstock - including the repair and lining the rock tunnel, construction of a new powerhouse, and installation of new equipment and switchgear.

Precautions will be taken during construction to prevent accidental spillage of oil, fuel and other hazardous substances. These substances will be properly stored and protected at the construction site.

3.1.1 Clearing of Vegetation

All vegetation on steep slopes and stream banks will be protected to maintain slope stability and prevent erosion. The existing access road off Cypress Street will be renovated and utilized during construction. No new roads will be required. Some selective clearing will be required for the construction of the penstock (lower section). The brush and pioneer vegetation will be cleared during the "stabilization" of the mill ruins and to improve views from South Side Park. The mill sites will be graded and seeded. All brush and debris will be removed from the site and disposed of in an environmentally sound manner.

Areas disturbed during construction will be graded and seeded as soon as possible to minimize possible loss of sediment into the Poestenkill.

3.1.2 Dredging

No dredging is anticipated above the dam. The stream channel above the dam is cluttered with debris such as tires, shopping carts, etc. This debris will be removed and disposed of properly.

If future investigations should determine that some dredging is required, necessary permits and testing will be coordinated with the New York State Department of Environmental Conservation.

3.1.3 Renovation of Existing Dam, Gatehouse (Intake) and Tunnel

No major renovation is expected to be required at the existing timber dam.

The gatehouse and intake to the penstock at the north end of the dam will require major renovation. A cofferdam will be installed to divert the stream around the gatehouse. The area affected by the cofferdam will be no greater than 500 square feet.

While the cofferdam is in place, the rock tunnel will be cleaned and repaired as required.

3.1.4 Excavation

Construction of the new penstock (at grade) and powerhouse will require some earth and rock excavation.

Runoff from the construction site will be diverted into a temporary sedimentation basin below the excavation. This basin will periodically be cleaned and maintained during construction to prevent loss of sediment into the stream.

All excess excavated material will be removed from the site and properly disposed of.

The foundation of the new powerhouse will be anchored to the bedrock along the streambed.

No blasting during any phase of construction will be required.

3.1.5 Socioeconomic

The Mt. Ida Hydroelectric Project will employ 25-30 workers throughout the construction operation. The mill building renovation will employ an additional 20-25 workers during construction. It is anticipated that this workforce will be supplied by the local community.

3.1.6 Fish and Wildlife

No impact to fish and wildlife is expected during construction. Stream flow will not be reduced and no discharges will be released into the stream.

3.1.7 Water Quality

No pollutants or discharges of any kind will be released during construction. No reduction of stream flow nor dissolved oxygen content will occur. No change of water temperature will occur.

3.1.8 Recreational Utilization

Utilization and operation of the South Side Park will not be affected during construction. Access to the Poestenkill by way of the park will not be affected.

3.1.9 Scenic and Aesthetic Resources

The construction operations on the Mt. Ida site will be visible from the South Side Park and overlook. Views to the falls, gorge and mill ruins will not be restricted or modified.

3.1.10 Historic and Archaeological Resources

The mill ruins will be stabilized to eliminate any safety hazard. The foundations and remaining walls, the remains of the Marshall Hydropower system penstock and turbine remains will be preserved.

3.2 Operational Impacts

As evidenced by the long history (from 1890 to 1962) and operation of the Marshall Hydropower system, the industrial use of the Poestenkill Gorge poses no negative impact to the community. The run-of-river operation of the Mt. Ida hydroelectric facility will have little impact on the Poestenkill or the surrounding area.

3.2.1 Vegetative Cover

The existing vegetation on the site will be protected and allowed to return to a mature wooded condition.

The area in and around the mill ruins will be cleared of brush and seeded to create a park-like visual connection with the South Side Park.

3.2.2 Fish and Wildlife (see also Water Quality)

No impact to wildlife is expected.

During operation some flow of water will be diverted through the penstock reducing stream flow for approximately 1,000 feet in the gorge. The reduction of stream flow will reach lowest levels during summer low flow periods. The minimum natural stream flow, based on actual records of a nearby upstream gage which can be expected at the site, is zero cfs.

Because of high stream flows, during the fall and spring periods, water will pass over the dam a major portion of the time. Spawning and nursing seasons will coincide with these peak flow periods, making project impacts minimal.

There is minor impact expected to fish. Below the powerhouse and penstock exhaust, the stream characteristics will be unchanged.

There is no passage of migrating fishes at the site at this time. This proposal does not present any new obstacles in the flow course. Reviews of available fisheries inventory data reveal that no migratory fish inhabit the waters above or below the site. There are a number of natural obstacles in the streambed between the location of the site and the Hudson River.

Trashracks at the penstock intake will be sized and located at an angle to divert fish away from the intake. Flow through the trashracks will be low enough to prevent fish entrapment.

No tailrace fishery is expected.

3.2.3 Water Quality/Quantity

Stream flow will be reduced for approximately 1,325 feet between the penstock intake and exhaust at the powerhouse. Historic review of gauging records reveal a low stream flow of zero cfs.

The system will be run-of-river and no storage and release will occur.

Water levels will not fluctuate during operation or maintenance.

No pollutants or other discharge will occur. Dissolved oxygen content will remain high because of rapids and dams located upstream. Water temperature will not be affected.

The Applicant will cooperate with the New York State Department of Environmental Conservation to conduct monitoring, testing and regulating of water quality and stream flow as required.

3.2.4 Recreational Utilization

Primary access into the Poestenkill Gorge will remain from the South Side Park and Linden Avenue. Operation of the facility will not impact use of the Park. The new facility will illustrate the unique mixture and similarities of historic and modern hydropower systems. The applicant will perform maintenance repairs to the existing trail, observation deck and signage.

Access into the gorge by way of the Mt. Ida site will be restricted for safety reasons. The Applicant will investigate the potential of allowing the City of Troy to utilize the mill site as a passive historic park.

3.2.5 Socioeconomic

The operation of the Mt. Ida hydroelectric facility and the housing project will employ 4-5 full-time persons from the local community for maintenance and security.

The mill renovation will provide 40 modern residential rental units to the community.

The project will displace 18,500 barrels of imported oil per year.

The Poestenkill offers excellent opportunities for generation of hydropower. Because of inoperative or obsolete industries, the resource is not being utilized to its full capacity.

3.2.6 Historic Resources

All mill ruins will be stabilized. The remaining sections of penstock, turbines and similar artifacts will also be maintained as far as practicable.

The new powerhouse will be constructed in such a manner as to be consistent with the historic context of the present mill structure. The architectural character of the building will match the existing Wultex Building.

The Applicant will cooperate with any local historical groups and public agencies who may wish to conduct archaeological investigations, historic research and documentation of the industrial history of the Poestenkill Gorge.

3.1.7 Aesthetic Impact

Views from the South Side Park to the historic mill sites will be improved by:

1. Selective clearing and continued maintenance of the site will allow unrestricted views of the ruins.
2. Repair of the ruins and artifacts will preserve local history.
3. Comparison of the new hydro facility will invite and illustrate a comparison of the similarities to the historic hydropower system.

The views from the South Side Park to the falls and gorge is diminished during summer foliage and low flow period. However, a minimum stream flow of 5 cfs will be maintained during the daylight hours explicitly for the purpose of maintaining this visual resource.

3.1.8 Transmission Corridors

An existing Niagara Mohawk Power Corporation 34.5 KV transmission corridor and line is located northwest of the proposed powerhouse location (See Exhibits B-1, E-2 and G-1). A new 34.5 KV connection approximately 400 feet long is required (See Exhibits for details of the electrical transmission interconnection).

4. AGENCY CONTACTS AND COMMENTS

4.1 Description of Procedures

It is the policy of the Applicant to coordinate with agencies and individuals that have an interest in the proposed project. These agencies have been made aware of the Applicant's proposed project and were asked to make preliminary comments concerning known resources and environmental concerns. Personal conversations and group meetings took place to completely explain the project intent. The Applicant believes these early interactions with concerned agencies satisfy the Commission's requirements for consultation under Order 106.

4.2 Agencies that have been contacted:

Mr. Norman R. Chupp
Area Manager
U.S. Fish & Wildlife Service
100 Chestnut Street
Harrisburg, Pa. 17101

Regional Director
National Park Service
143 South Third Street
Philadelphia, Pa. 19106

District Director
U.S. Geological Survey
P. O. Box 1350
Albany, New York 12201

Regional Administrator
Region II
U.S. Environmental Protection Agency
Room 1009
26 Federal Plaza
New York, New York 10007

U.S. Army Corps of Engineers
New York District Office
26 Federal Plaza
New York, New York 10078
Attn: NANOP-E

Director, Northeastern Region
National Marine Fisheries
Service, NOAA
14 Elm Street
Federal Building
Gloucester, Massachusetts 01930

Mr. William S. Patterson
Regional Environmental Officer
U. S. Department of Interior
15 State Street
Boston, Massachusetts 02109

Regional Director, N.E. Region
Heritage Conservation and
Recreation Service
Federal Office Building
Room 9310
600 Arch Street
Philadelphia, Pa. 19106

Mr. Murdock M. MacKenzie
New York State Department
of Environmental Conservation
50 Wolf Road
Albany, New York 12232

~~U. S. Army Corps of Engineers
Buffalo District
1776 Niagara Street
Buffalo, New York 14207~~

Mr. Paul Hamilton
Field Supervisor
U. S. Department of Interior
Fish and Wildlife Service
100 Grange Place - Room 202
Cortland, New York 13045

Mr. Bruce Goodale
N.Y.S. Public Service Commission
Agency Building No. 3
Rockefeller Plaza
Albany, New York 12223

Ms. Lenore R. Kuwik
Historic Preservation Field Services
N.Y.S. Office of Parks & Recreation
Agency Building No. 1
Rockefeller Plaza
Albany, New York 12223

Mr. Roy Roberts
Recreation Services
N.Y.S. Office of Parks and Recreation
Agency Bldg. No. 1
Rockefeller Plaza
Albany, New York 12223

Mr. David Soule
Director
Rensselaer County Planning Department
1600 Seventh Avenue
Troy, New York 12181

U.S. Army Corps of Engineers
Senior Shore Patrol Officer
Box 209
Lansingburg Station, New York 12182

Mr. James D. Hebson
Regional Engineer
Federal Energy Regulatory Commission
Regional Office
26 Federal Plaza
New York, New York 10278

4.3 Agency Comments

All regulatory responses to the Applicant received to date regarding the Mt. Ida hydroelectric project are attached.

A project chronology and listing of pertinent communications has been prepared to document the extensive prior involvement of the Applicant regarding redevelopment of the Mt. Ida site for hydroelectric purposes.

Various agencies of the local, state and federal governments have assisted, advised, and consulted the Applicant in formulating a viable development plan for the site.

The Applicant is unequivocal in its intent to continue development of this hydroelectric resource.

PROJECT CHRONOLOGY AND COMMUNICATIONS

DATE	ITEM*	FROM	TO	REFERENCE
12/21/81	C	Saratoga Assocs. (for Mt. Ida Assocs.)	Hudson-Mohawk Urban Cultural Park Comm.	Historic Preserva- tion aspects of project
01/18/82	R	J.Kenneth Fraser & Assocs., P.C. (for Mt. Ida Assocs.)	NYSDEC	Prel. Proj.Descript.
01/20/82	C	Saratoga Assocs. (for Mt. Ida Assocs.)	Mohawk-Hudson Indust.Gateway	Historic and archaeological consultation session
01/21/82	C	"	NYS-OPR Div. of Histor.Preserv.	Historic District consultation
01/21/82	L	U.S.Dept. of Interior, Office of Environmental Protect. Review	Mr. K. F. Plumb, FERC	Consultation on preliminary permit notice of 11/18/81. Forwards general areas of interest and list of en- dangered species
01/25/82	L/C	J.Kenneth Fraser and Assocs., P.C. (for Mt. Ida Assocs.)	NYSDEC	Conference notes of proj. mtg. of 01-18-82 at NYSDEC
03/18/82	L	J. Douglas Sheppard, NYSDEC	J.Kenneth Fraser & Associates, P.C.	Fisheries and Wildlife resource information for the Poestenkill (Troy vicinity) generic hydro concerns of the NYSDEC.

*ITEM LEGEND:

- L letter correspondence
- T telephone conversation
- P personal communication
- R report
- A application submitted
- C conference

MT. IDA ASSOCIATES, INC.

PROJECT CHRONOLOGY AND COMMUNICATIONS

DATE	ITEM*	FROM	TO	REFERENCE
03/29/82	L	R.Roberts,NYSOPR Recreation Plan.	J.Kenneth Fraser & Associates, P.C.	Request for evaluation of recreational potential at site.
04/20/82	L	M. MacKenzie, NYSDEC	J.Kenneth Fraser & Associates, P.C.	Distribution of draft exemption by DEC, Regulatory Affairs.
04/22/82	L	R.Roberts,NYSOPR Recreation Plan.	J.Kenneth Fraser & Associates, P.C.	Modification of 03/29/82 request. Comments incor- porated into final application.

The Saratoga Associates

December 21, 1981

CONFERENCE REPORT

LOCATION: Cohoes City Hall
PROJECT: Mt. Ida Hydroelectric Facility
PRESENT: Richard Smith
Director of Hudson Mohawk Urban Cultural Park Comm.
James E. Miller - The Saratoga Associates
J. Daniel Wojcik - The Saratoga Associates

- o Jim Miller presented a summary of the proposed project.
- o Mr. Smith expressed his interest in preserving any foundations, turbines, etc. which help illustrate the historic significance of the site and compliment the "South Side Park" on the southern bank of the Poestenkill.
- o Jim Miller agreed that an effort will be made to preserve any artifacts, some public access and display will be provided.
- o Richard Smith will be kept informed, as the project progresses.

RESPECTFULLY SUBMITTED,


James E. Miller

JEM:km

Bristol, Litynski, Wojcik, P.C.
Landscape Architects, Architects, Planners, Engineers, Land Surveyors
Old Saratoga Square, Saratoga Springs, New York 12866 (518) 587-2550
Buffalo, N.Y. East Greenbush, N.Y. New York, N.Y.

Robert F. Bristol, R.L.A.; John G. Litynski, R.L.A.; J. Daniel Wojcik, R.L.A.; James E. Miller, R.L.A.; Richard R. Butler, A.I.A.;
Daniel R. Brown, R.A.; Arthur F. Brod, Jr., A.I.C.P.; Neill E. Anderson, P.E.; Kevin M. Brady, P.L.S.; Michael S. Rudden, A.I.A.

01/18/82

PRELIMINARY PROJECT DESCRIPTION

MT. IDA PROJECT, TROY, NEW YORK

FERC NO. 5465

A. GENERAL INFORMATION

1. Mt. Ida Associates, Latham, New York will apply to the Federal Energy Regulatory Commission for an exemption from licensing for the proposed facility - Mt. Ida Project, as described in the attached exhibits. This application is made in order that the applicant can proceed with the development of the project in the nearest possible timeframe.

2. The location of the proposed project is:

State of territory:	New York
County:	Rensselaer
Township or nearby town:	City of Troy
Stream or other body of water:	Poesten Kill

3. The exact name and business address of the applicant is:

Mt. Ida Associates
Latham Circle Mall - Room 111
800-19 New Loudon Road
Latham, New York 12110
Telephone (518) 785-1555

The exact name, business addresses, and telephone numbers of the persons authorized to act as agents for the applicant in this application are:

Mr. William Bantz
Mt. Ida Associates
Latham Circle Mall - Room 111
800-19 New Loudon Road
Latham, New York 12110
Telephone: (518) 785-1555

Mr. Stephen F. Burke
J. Kenneth Fraser and Associates, P.C.
Consulting Engineers
620 Washington Avenue
Rensselaer, New York 12144
Telephone: (518) 463-4408

No federal or state owned lands or dams would be involved in this project.

4. Mt. Ida Associates is a partnership organized under the laws of New York State.
5. All existing facilities required for the development and operation of this project are owned by:

Mt. Ida Associates
Latham Circle Mall - Room 111
800-19 New Loudon Road
Latham, New York 12110

B. PROPOSED PROJECT DESCRIPTION

The proposed Mt. Ida small hydroelectric project involves the modernization and uprating of a formerly operational mill site which has not operated since 1962. Mt. Ida Associates proposes to renovate the former Tim and Company Mill for both hydro applications and rental housing. The mill is an integral member of a chain of sites which developed in sequence the potential of the Poesten Kill in the City of Troy in Rensselaer County, New York. Mt. Ida Associates proposes to develop a new hydroelectric installation at a powerhouse siting at the base of the Poestenkill Gorge proximal to the former Tim and Company property now under the ownership of Mt. Ida Associates. The estimated plant capacities for the development is 2,300 KW.

In the recent past the once vital complex of a series of small mechanically powered mills has been left dormant. Large portions of the complex have fallen into ruins. This proposal concentrates on the renovation of both delinquent properties and a modern approach to the redevelopment of a significant small hydropower resource.

1. The location of the proposed site is in Rensselaer County, New York on the Poesten Kill in the City of Troy. The site is located on USGS Quadrangle "Troy South" at Latitude 42 - 44'-42" and Longitude 73 -41'-43".

The remains of what was formerly a chain of interdependent small hydropower based industries are evident at the site. None of the former operations are in use today. The FERC "Staff Report on Retired Hydropower Plants in the United States" of December 1980, reveals the following listings of sites contained within the affected project area:

- i) 0208398100E
City Ice & Fuel Co.
Inst.Cap. - 119 KW
- ii) 0208398100H
Manning, John A.
Inst.Cap. - 496 KW

The owners listed in this report are previous owners.

The site can be generally described as a deep rock gorge having a small timber dam at the upper elevation which facilitates the introduction of water to an underground distribution conduit to the chain of mills which were constructed along the steep banks on the north side of the gorge to extract mechanical power from a stepped allocation of total head developed at the site. The Posten Kill in this reach flows westerly on its course to the Hudson River (having its confluence point approximately 1.2 miles from the proposed site). The site has a history of waterpower development, water supply and light recreation, but it has never been of navigational significance. At this time no use is being made of the Poesten Kill.

- A. The existing timber dam was constructed in the year 1840 and then reconstructed in the year 1940 after hurricane flood waters of 1935 caused its failure. Under a cooperative agreement, all owners connected to the distribution system (single penstock) were required to maintain and pass flow to the users below. In further accord with the laws of the day these owners were required to maintain the dam. Riparian rights were protected and remain in force to this day.

The dam is founded on rock and has a span of 150 feet with a crest elevation of 212 Feet USGS. Its height varies from 4.5 feet to 13 feet with a 10.5 foot average. The timber bents (buttresses) are spaced 5 feet on center and consist of 10 inch by 10 inch members.

- B. The existing penstock begins at the north bank of the Poesten Kill 20 feet east of the existing dam at the intake. The penstock is in fact a subterranean 36 to 48 inch flow conduit which was constructed by boring into the rock wall of the gorge. This conduit remains intact and extends some 630 feet to its terminal end at the Mt. Ida main mill. The proposed development would reutilize the initial portion of this conduit. A new length of 60 inch penstock would be required to deliver flows to the proposed new powerhouse (see attached preliminary site plan).

2. The dam creates a pool within the channelized banks of the Poesten Kill of approximately 1.4 surface acres with a perimeter of .4 miles. This pool is not capable of providing storage for hydroelectric operations, but serves to augment the significant natural head afforded by the gorge and to introduce water to the existing penstock intake.

The proposed mode of operation is run-of-river. There is no proposed storage capacity associated with this project.

3. A combined usage for the power generated by the facility is being explored. Excess power generated could be marketed to the public utility (Niagara Mohawk Power Corporation) or used internally with all surplus power being sold to the grid.

The proposed alternative connections to the utility grid will involve interconnection to a 13.2 KV line adjacent to the site.

C. SPECIFICS OF THE SELECTED DEVELOPMENT

The selected development seeks to fully maximize the developable head represented by the steep slope of the natural gorge at the Mt. Ida Associates property.

This proposal involves construction of a new reinforced concrete and brick powerhouse approximately 19 feet by 54 foot in plan. This powerhouse would be sited on the northern stream bank above the Poesten Kill approximately 40 feet north of the centerline of the stream and 30 feet west of the lower former power room of the "Third Marshall Power System." The design net head for this siting configuration is 151 feet (160 gross) with a corresponding design flow of 200 cubic feet per second.

A 60 inch diameter steel penstock extension would be required. It would extend from the rock tunnel conduit which originates at the reconditioned intake constructed at the north end of the existing timber dam through the existing rock-cut tunnel and would extend to the new powerhouse location shown on the attached proposed site plan.

Switchgear and controls would be located in the new powerhouse and adjacent switchyard. Power would then be transmitted 640 feet over a 4,160 KV line to a point of interconnection with the local 13.2 KV distribution system of the Niagara Mohawk Power Corporation.

The proposed tailrace would discharge to the Poesten Kill at a point located on the northern bank of the Poesten Kill, approximately 300 feet downstream of the Mt. Ida mill.

Proposed generation equipment includes three horizontal Francis units rated at 1,160 horsepower each. Each turbine unit would be connected to a 769 kilowatt synchronous generator outputting at 60 cycles, 4,160 volts and a 0.95 power factor. Each turbine generator unit would operate at 900 RPM directly linked to the generator. Total plant capacity would be 2,300 kilowatts.

ATTACHMENTS

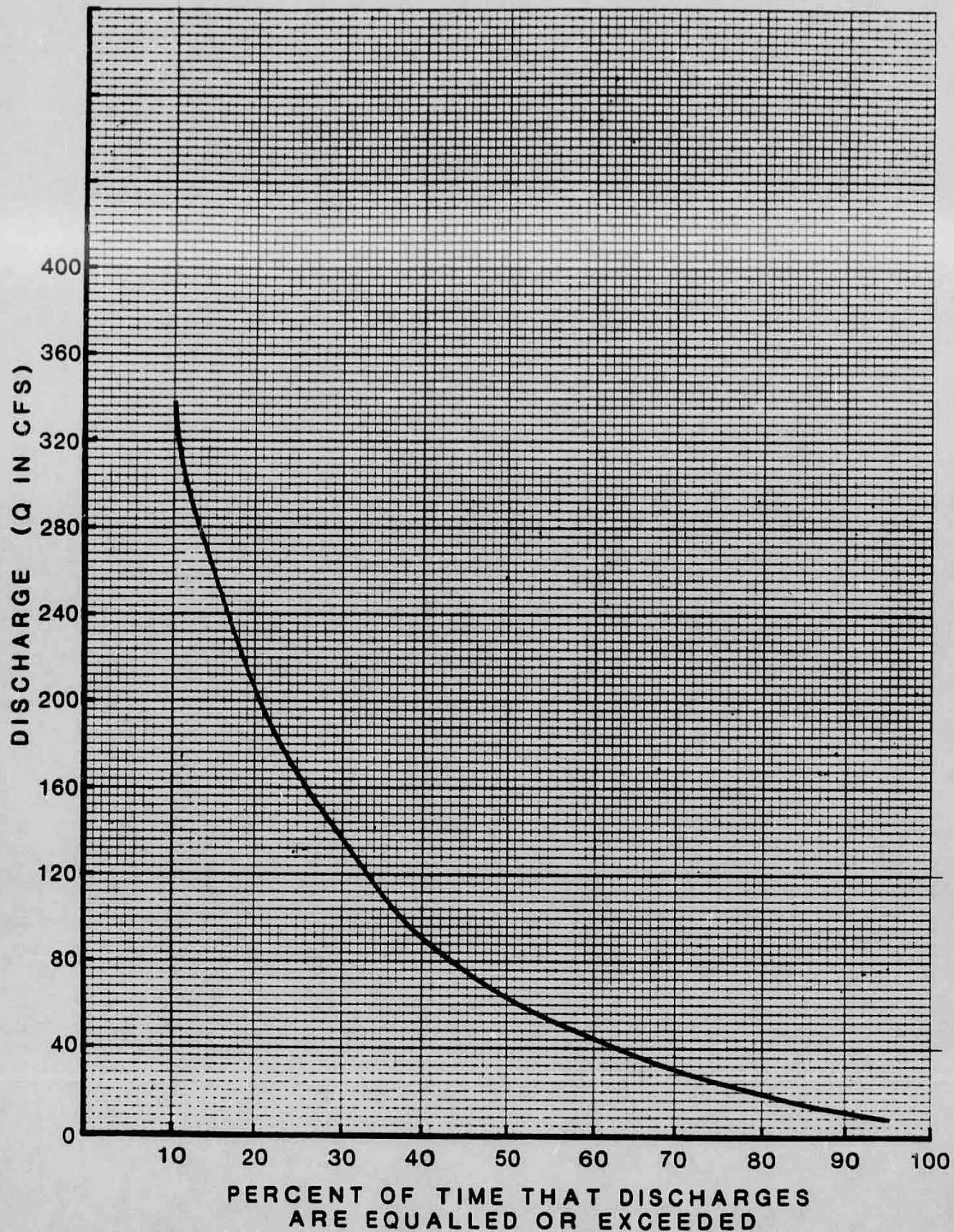
1. U.S.G.S. QUADRANGLE LOCATION MAP
2. PRELIMINARY FLOW DURATION CURVE
3. FEDERAL REGISTER NOTICE (09/25/81)
4. PROPOSED SITE PLAN
5. PHOTO OF EXISTING AND PROPOSED FACILITIES

**A PORTION OF
TROY SOUTH QUADRANGLE
NEW YORK
7.5 MINUTE SERIES PLANIMETRIC**

ERVILLET



**MT. IDA HYDROELECTRIC
REDEVELOPMENT PROJECT
TROY, NEW YORK**



**MT. IDA HYDROELECTRIC REDEVELOPMENT
EXEMPTION APPLICATION**

**FLOW
DURATION
CURVE**

**EXHIBIT
A**

[Project No. 5465-000]

Mt. Ida Associates; Application for Preliminary Permit

November 18, 1981.

Take notice that Mt. Ida Associates (Applicant) filed on October 9, 1981, an application for preliminary permit [pursuant to the Federal Power Act, 16 U.S.C. 791(a)-825(r)] for Project No. 5465 to be known as the Mt. Ida Project located on the Poesten Kill Creek in the City of Troy, in Rensselaer County, New York. The application is on file with the Commission and is available for public inspection. Correspondence with the Applicant should be directed to: Mr. William Bantz, Latham Circle Mall—Room 111, 800-19 New Loudoun Road, Latham, New York 12110.

Project Description.—This run-of-river project would consist of certain facilities common to three alternative proposals: (1) An existing timber dam owned by the Applicant 150 feet long and varying in height from 4.5 to 13 feet; (2) a small pool covering 1.4 acres with no storage capacity, and (3) a 36 to 48-inch diameter conduit bored in rock and extending 630 feet. The three alternative proposals involve placing the powerhouse in three different locations, each farther downstream, and having heads, generating capacities and annual generations of 85, 159 and 184 feet, 1.3, 2.4 and 2.8 MW and 7.3, 13.7 and 15.8 GWh, respectively. Project power would supply a former mill site complex converted to rental housing. All excess power generated would be sold to Niagara Mohawk Power Corporation.

Proposed Scope of Studies Under Permit.—A preliminary permit, if issued, does not authorize construction. Applicant seeks issuance of a preliminary permit for a period of 18 months, during which time it would perform surveys and geological investigations, determine the economic feasibility of the project, reach final agreement on sale of project power, secure financing commitments, consult with Federal, State, and local government agencies concerning the potential environmental effects of the project, and prepare an application for FERC license, including an environmental report. Applicant estimates the cost of studies under the permit would be \$55,000.

Competing Applications.—Anyone desiring to file a competing application must submit to the Commission, on or before January 20, 1982, either the competing application itself [See 18 CFR 4.33 (a) and (d) (1980)] or a notice of intent [See 18 CFR 4.33 (b) and (c) (1980)] to file a competing application.

Submission of a timely notice of intent allows an interested person to file an acceptable competing application no later than the time specified in § 4.33(c).

Agency Comments.—Federal, State, and local agencies are invited to submit comments on the described application. (A copy of the application may be obtained by agencies directly from the Applicant.) If an agency does not file comments within the time set below, it will be presumed to have no comments.

Comments, Protests, or Petitions To Intervene.—Anyone may submit comments, a protest, or a petition to intervene in accordance with the requirements of the Rules of Practice and Procedure, 18 CFR 1.8 or 1.10 (1980). In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a petition to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests or petitions to intervene must be received on or before January 20, 1982.

Filing and Service of Responsive Documents.—Any filings must bear in all capital letters the title "COMMENTS", "NOTICE OF INTENT TO FILE COMPETING APPLICATION", "COMPETING APPLICATION", "PROTESTS", or "PETITION TO INTERVENE", as applicable, and the Project Number of this notice. Any of the above named documents must be filed by providing the original and those copies required by the Commission's regulations to: Kenneth F. Plumb, Secretary, Federal Energy Regulatory Commission, 825 North Capitol Street, NE., Washington, D.C. 20426. An additional copy must be sent to: Fred E. Springer, Chief, Applications Branch, Division of Hydropower Licensing, Federal Energy Regulatory Commission, Room 208 RB at the above address. A copy of any notice of intent, competing application, or petition to intervene must also be served upon each representative of the Applicant specified in the first paragraph of this notice.

Kenneth F. Plumb,
Secretary.

[FR Doc. 81-34078 Filed 11-24-81; 8:48 am]
BILLING CODE 6717-01-M

The Saratoga Associates

CONFERENCE REPORT

PROJECT: Mt. Ida Hydro - 81-111
PLACE: Hudson Mohawk Industrial Gateway
Troy, New York
DATE: January 20, 1982
PRESENT: Emily Gould - Gateway
Jim Miller - The Saratoga Associates
J. Daniel Wojcik - The Saratoga Associates

ITEMS:

1. Jim Miller presented the proposed Mt. Ida Hydro - Electric Project and reviewed the aerial photograph and plan of the site.

Jim Miller explained that the dam, gatehouse, and tunnel portion of the Marshall's Hydropower system will be utilized in conjunction with a new penstock and powerhouse.

Jim Miller also explained the Wultex Building will be renovated for rental housing.

2. Ms. Gould expressed her interest in the project, and was pleased to learn that the site will be utilized and the historic mill ruins stabilized and protected from further vandalism.

Ms. Gould offered the assistance of the Gateway. The Gateway would request that additional archaeological studies be prepared and a through documentation of the industrial history of the Poesten Kill Gorge.

If any of the foregoing statements are not correct, accurate, complete and in context, please notify The Saratoga Associates of such discrepancy within twenty days following receipt of this record.

Respectfully submitted,



James E. Miller

Bristol, Litynski, Wojcik, P.C.
Landscape Architects, Architects, Planners, Engineers, Land Surveyors
Old Saratoga Square, Saratoga Springs, New York 12866 (518) 587-2550
Buffalo, N.Y. East Greenbush, N.Y. New York, N.Y.

Robert F. Bristol, R.L.A.; John G. Litynski, R.L.A.; J. Daniel Wojcik, R.L.A.; James E. Miller, R.L.A.; Richard R. Butler, A.I.A.;
Daniel R. Brown, R.A.; Arthur F. Brod, Jr., A.I.C.P.; Neill E. Anderson, P.E.; Kevin M. Brady, P.L.S.; Michael S. Rudden, A.I.A.

The Saratoga Associates

CONFERENCE REPORT

PROJECT: Mt. Ida Hydro

PLACE: New York State Division for Historic
Preservation Office, Albany, New York

DATE: January 21, 1982

JOB NO.: 81-111

PRESENT: Raymond Smith - Program Analyst, Survey & Planning
New York State Division for
Historic Preservation
Jim Miller - The Saratoga Associates

ITEMS:

1. Jim Miller presented the proposed Mt. Ida Hydro - Electric Project and reviewed the aerial photograph and plan of the site.

Jim Miller explained that the dam, gatehouse, and tunnel portion of the Marshall's Hydropower system will be utilized in conjunction with a new penstock and powerhouse.

Jim Miller also explained the Wultex Building will be renovated for rental housing.

Jim Miller requested status of the Poesten Kill Gorge site and implications of this status to the project.

2. Mr. Smith provided the attached Historic District application with a map indicating the district boundaries.

Mr. Smith explained that the proposed hydro project and the renovations to the Wultex Building appear to be acceptable uses. He explained that the Mill ruins should be preserved to maintain the historic evidence of the site.

Bristol, Litynski, Wojcik, P.C.
Landscape Architects, Architects, Planners, Engineers, Land Surveyors
Old Saratoga Square, Saratoga Springs, New York 12866 (518) 587-2550
Buffalo, N.Y. East Greenbush, N.Y. New York, N.Y.

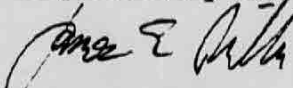
Robert F. Bristol, R.L.A.; John G. Litynski, R.L.A.; J. Daniel Wojcik, R.L.A.; James E. Miller, R.L.A.; Richard R. Butler, A.I.A.;
Daniel R. Brown, R.A.; Arthur F. Brod, Jr., A.I.C.P.; Neill E. Anderson, P.E.; Kevin M. Brady, P.L.S.; Michael S. Rudden, A.I.A.

The Saratoga Associates

Conference Report
Page 2
January 21, 1982

If any of the foregoing statement are not correct, accurate, complete and in context, please notify The Saratoga Associates of such discrepancy within twenty days following receipt of this record.

Respectfully submitted,



James E. Miller

JEM:jk

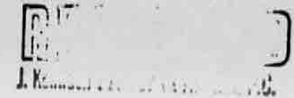


United States Department of the Interior

OFFICE OF THE SECRETARY

Office of Environmental Project Review
15 State Street
Boston, Massachusetts 02109

ER-81/2466



January 21, 1982

JAN 27 1982

Mr. Kenneth F. Plumb, Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, D.C. 20426

Dear Mr. Plumb:

The Department of the Interior has reviewed the November 18, 1981, Notice of Application by Mt. Ida Associates for a preliminary permit for the Mt. Ida Project (Project No. 5465) located on Poesten Kill Creek in the City of Troy, Rensselaer County, New York.

We have no objection to the issuance of a preliminary permit for this hydroelectric project provided that studies under the permit give adequate consideration to the following concerns.

Recreational Resources

An assessment of the recreation potential of the project should be undertaken during the preliminary permit period in consultation with the State Liaison Officer (SLO), county officials, and local community groups and agencies concerned with providing opportunities for public recreation. The assessment should include consideration of recreation needs and priorities identified in the Statewide Comprehensive Outdoor Recreation Plan as well as the enhancement and upgrading of any existing facilities that may have been developed earlier in conjunction with the project. The SLO for New York is Mr. Orin Lehman, Commissioner, Parks and Recreation, Agency Building #1, Empire State Plaza, Albany, New York 12238.

Cultural Resources

The State Historic Preservation Officer (SHPO) should be consulted concerning the project to insure compliance by the applicant and the Federal Energy Regulatory Commission (FERC) with all preservation legislation. Consideration of project effects on any existing or potential cultural resources should take place as part of the environmental evaluation during the preliminary permit period. We suggest that Article 7 in Order No. 54 Final Rule, FERC, October 22, 1979, be included in the preliminary permit. For New York, the SHPO is also Mr. Lehman.

Fish and Wildlife Resources

Poesten Kill Creek supports a warmwater fishery consisting of smallmouth bass, alewife, rock bass and a variety of suckers, darters and minnows. There are also a few brown trout. The American eel, a migratory species, also is found in the creek. There is a locally popular alewife fishery below the falls.

Except for occasional transient species, no federally listed or proposed endangered or threatened species under our jurisdiction are known to exist in the project impact area. Therefore, no Biological Assessment or further Section 7 consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.) is required with the U.S. Fish and Wildlife Service. Should project plans change, or if additional information on listed or proposed species becomes available, this determination may be reconsidered. A compilation of federally listed endangered and threatened species in New York is enclosed for your information.

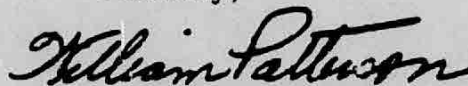
The following comments and recommendations are submitted pursuant to the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The proposed Mt. Ida Project could adversely impact existing fishery resources and water quality in Poesten Kill Creek. The Department of the Interior would be opposed to any hydroelectric operation that would destroy or seriously degrade fish and wildlife resources in the downstream reaches. We suggest that the Permittee be required to coordinate with the New York State Department of Environmental Conservation and the U.S. Fish and Wildlife Service throughout the 18-month study period to consider development and operations that would be compatible with existing fish and wildlife resources.

We recommend that the following be stipulated in any preliminary permit issued by the Federal Energy Regulatory Commission regarding FERC No. 5465:

"That the Permittee shall design and conduct at project cost, as soon as practicable after issuance of the preliminary permit, preparatory studies in cooperation with the New York State Department of Environmental Conservation and the U.S. Fish and Wildlife Service. These studies shall address, but not be limited to, the effects of hydroelectric operations on fish passage and migration, spawning success and fish survival in the reservoir, water quality in the reservoir, minimum continuous water releases downstream, and effects of cyclic water level fluctuations on aquatic and riparian vegetation. The studies shall also identify and evaluate general measures to avoid, offset, and/or reduce adverse project-caused impacts on fish and wildlife resources."

Sincerely,



William Patterson
Regional Environmental Officer

Enclosure

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN NEW YORK

Common Name	Scientific Name	Status	Distribution
<u>FISHES:</u>			
Cisco, longjaw	<u>Coregonus alpenae</u>	E	Lake Erie-probably extinct
Pike, blue	<u>Stizostedion vitreum</u> <u>glaucum</u>	E	Deep water of Lake Erie & Lake Ontario - probably extinct
Sturgeon, shortnose*	<u>Acipenser brevirostrum</u>	E	Hudson River and other Atlantic Coastal rivers
<u>REPTILES:</u>			
Turtle, green*	<u>Chelonia mydas</u>	T	Oceanic summer visitor coastal waters
Turtle, hawksbill*	<u>Eretmochelys imbricata</u>	E	Oceanic summer visitor coastal waters
Turtle, leatherback*	<u>Dermochelys coriacea</u>	E	Oceanic summer resident coastal waters
Turtle, loggerhead*	<u>Caretta caretta</u>	T	Oceanic summer resident coastal waters
Turtle, Atlantic ridley*	<u>Lepidochelys kempii</u>	E	Oceanic summer resident coastal waters
<u>BIRDS:</u>			
Eagle, bald	<u>Haliaeetus leucocephalus</u>	E	Entire state
Falcon, American peregrine	<u>Falco peregrinus anatum</u>	E	Entire state - re-establishment to former breeding range in progress
Falcon, Arctic	<u>Falco peregrinus tundrius</u>	E	Entire state migratory - no nesting
<u>MAMMALS:</u>			
Bat, Indiana	<u>Myotis sodalis</u>	E	Entire state
Cougar, eastern	<u>Felis concolor cougar</u>	E	Entire state - probably extinct
Whale, blue*	<u>Balaenoptera musculus</u>	E	Oceanic
Whale, finback*	<u>Balaenoptera physalus</u>	E	Oceanic
Whale, humpback*	<u>Megaptera novaeangliae</u>	E	Oceanic
Whale, right*	<u>Eubalaena</u> spp. (all species)	E	Oceanic
Whale, sei*	<u>Balaenoptera borealis</u>	E	Oceanic
Whale, sperm*	<u>Physeter catodon</u>	E	Oceanic

* Except for sea turtle nesting habitat, principal responsibility for these species is vested with the National Marine Fisheries Service.

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN NEW YORK (Cont'd)

<u>Common Name</u>	<u>Scientific Name</u>	<u>Status</u>	<u>Distribution</u>
<u>MOLLUSKS:</u>			
Snail, chittenango ovate amber	<u>Siccinea ovalis</u> <u>chittenangoensis</u>	T	Madison County
<u>PLANTS:</u>			
Monkshood, northern wild	<u>Aconitum noveboracense</u>	T	Ulster County

J. KENNETH FRASER AND ASSOCIATES, P. C.

Consulting Engineers

620 WASHINGTON AVENUE
RENSELAER, N. Y. 12144

TELEPHONE 463-4408

January 25, 1982

Mr. Richard England
Division of Regulatory Affairs
New York State Department
of Environmental Conservation
50 Wolf Road
Albany, New York 12233

Re: Small Hydro Redevelopment Project
Mt. Ida Project, Troy, New York
FERC Project No. 5465
Agency Consultation Process

RECEIVED			
J. K. Fraser & Assoc. Consulting Engineers			
TO	✓	Initial	Action
JKF			
JF Jr.	✓		
RAF			
WTB			
KNS			
J.A.B.	✓		

Dear Mr. England:

We would like to take this opportunity to forward a copy of draft conference notes of the preliminary consultation meeting which took place at your offices on January 18, 1982 concerning the referenced project.

These notes have been prepared by our office on behalf of our client, Mt. Ida Associates, for your review and comment. We would be most appreciative of any comments, modifications, or additions you or your staff may wish to make to these notes. It is our intention to utilize this document as proof of agency consultation in the matter of the FERC application for exemption now under preparation. We look forward to receipt of any available Fish and Wildlife data which the Department may make available on the subject site.

Your time and assistance on this matter is greatly appreciated.

Very truly yours,

STEPHEN F. BURKE

Stephen F. Burke

SFB/kp:encl.

CC w/encl. Mr. William Bantz
Mr. Michael Stronsky
Mr. James Miller

CONFERENCE NOTES

PROJECT:

MT. IDA SMALL HYDROELECTRIC REDEVELOPMENT PROJECT
(FERC Project No. 5465)

APPLICANT:

MT. IDA ASSOCIATES
Latham Circle Mall - Room 111
800-19 New Loudon Road
Latham, New York 12110

DATE OF MEETING:

January 18, 1982

SUBJECT:

Presentation and explanation of project intent and scope, definition of existing conditions, and exchange of information.

ATTENDANCE:

Richard England, NYSDEC - Division of
Regulatory Affairs
Michael Stronsky, NYSDEC - Division of
Fish and Wildlife
Richard Draper, NYSDEC - Division of
Pure Waters
William Bantz, Mt. Ida Associates
James Miller, Saratoga Associates (for
Mt. Ida Associates)
Stephen Burke, Fraser Associates (for
Mt. Ida Associates)

NOTES

PREPARED BY:

Stephen Burke 

ITEMS:

1. The purpose of the meeting was to seek the input of the New York State Department of Environmental Conservation (DEC) on the environmental aspects of the proposal prior to the submission of the draft application for exemption for the Mt. Ida Small Hydroelectric Redevelopment Project.

The intent of Mt. Ida Associates (the applicant) and its agents was to provide an explanation of the intent, scope, and schedule of the proposal and elicit concerns and relevant data from the DEC representatives present. The information exchange process would then result in the incorporation of issues and data derived from the session into the draft application document to be submitted for subsequent DEC and other agency review.

2. The proposed project development and the original development scheme were described by S. Burke of J. Kenneth Fraser and Associates, P.C. and J. Miller of the Saratoga Associates on behalf of the applicant.

A preliminary project fact sheet with support graphics depicting the existing site conditions and the development scheme was provided for the purpose of supplementing the project description. A copy of this description has been appended to these conference notes.

3. The following synopsis of project background was provided:

- o A FERC preliminary permit is under application
- o Applicant has expressed its intent to file an application for exemption from licensing
- o The patterns of historical use of the site were explained
- o An overall project intent was defined - to include the independent redevelopment aspects of hydro development and housing.

4. The following specific details of the proposed development were explained in detail:

- o Run-of-river mode of operation
- o Reutilize an existing dam
- o New powerhouse to be constructed
- o Proposed new capacity of 2300 KW
- o Plant design flow of approximately 200 cfs
- o Portion of original penstock to be reutilized
- o Portion of penstock to be new construction
- o Plant to house multiple turbine/generator units
- o Power application to be combination internal/grid
- o Applicant reserved right to reestablish historic flashboards.

5. DEC personnel poses a series of technical questions which were addressed with photographs and site plan drawings. These questions concerned flow data; head; machine size, number, placement, and ratings; adjacent land uses; recreational opportunities; proximity to wetlands; animal habitats; extent of required dredging; and fisheries issues. No apparent problems were highlighted as a result of the discussion. However, it is recognized that more detailed qualification of these subjects will be required to complete the DEC reviews. These and other subjects will be addressed in the applicant's Exhibit E (Environmental Statement) of the exemption application.

Specifically, the following items will require additional elaboration in the draft application for exemption:

- o Minimum and maximum flow capacities for the proposed plant
- o Dedication of minimum flow to the falls for reasons of visual aesthetics.
- o Provision of public access and limitations of same for safety reasons
- o Discussion of fish and wildlife impacts.

6. Mr. Richard Draper, Monitoring and Surveillance Group of the Division of Pure Waters, DEC, indicated that his review of Department records revealed that no SPEDES related discharges are presently being made to the Poesten Kill (either upstream or downstream). To the best of his knowledge, there is no dissolved oxygen or waste assimilative capacity problem in the stream. Hence, from this perspective, DEC would not request a minimum flow release over the dam. The classification of the Poesten Kill in this area is "C".


7. Mr. Michael Stronsky, DEC, Fish and Wildlife Division, cited a recently completed study conducted by Region 4 of the DEC on the Poesten Kill. This study inventoried fisheries in the segment of the stream from the confluence point at the Hudson River upstream for a 22 mile segment. This data is to be provided to the applicant's agent as soon as possible. Although a detailed analysis of this data has not yet been performed by the DEC, it was indicated that the reach of the stream to be affected by this proposal does not represent a significant fisheries resource. The 3500 foot segment at the terminal end of the stream is believed to provide a nursery for the Hudson River fishery. This segment is isolated from the project area by a natural gradient in the streambed resulting in a 35 to 40 foot elevation difference. This proposal will not affect this area. Above the site, fish do inhabit a stretch of B(T) waters which would also remain unaffected by this proposal. An angle deflector at the intake was recommended.

There is no wildlife inventory data available for this area.

A discussion of the proposed method of channel cleanup (upstream of the existing dam) was requested for incorporation in Exhibit E. A similar request was made for a description of the plans and limits to the provision of public access to the site.

8. The project may require a series of NYS Environmental Conservation Law based permits prior to actual construction of the facility for purposes of streambed protection (ECL Article 15). Specifically, a permit may be required for dam modification (Art. 15-0503), dredging (Art. 15-0505), and streambed disturbance (Art. 15-0501). The applicant expressed willingness to comply with the directives of the Department in relation to these matters.

9. The applicant stated that draft copies of the application now under preparation will be supplied as soon as possible to the DEC Division of Regulatory Affairs for internal redistribution, review and comment. In light of the desire on the part of the applicant to expedite all phases of this project, it was requested that the DEC provide fisheries and any other available data related to the site within the next two weeks.

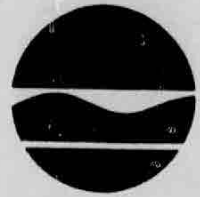

Stephen F. Burke

1000
The following is a list of the names of the persons who have been assigned to the various projects of the program.

As of 10/18/58

Name	Residence	Phone
William DALIZ	N.Y. DEC. ASSOCIATES	785-1585
STEPHEN BURKE	(FEASER & ASSOC)	463-4408
JAMES MILLER	THE SARATOGA ASSOC. (CONSULTANT TO FEASER & ASSOC)	587-2550
Michael S. Strain	N.Y. DEC - F & W	515-457-6171
Thomas H. Englund	N.Y. DEC - REG. AFF.	515-457-2224

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233



Robert F. Flacke
Commissioner

March 18, 1982

J. K. Fraser & Assoc.
620 Washington Avenue
Rensselaer, New York 12144

ATTENTION: Stephen Burke

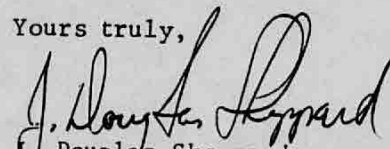
Dear Mr. Burke:

The New York State Department of Environmental Conservation's Division of Fish and Wildlife has assembled the available fish and wildlife inventory information for the Poestenkill in the vicinity of Troy and related fish and wildlife resources that could be affected by hydropower development in this section of the Poestenkill. Please find this information enclosed along with our generic fish and wildlife concerns with all proposed hydropower developments in New York State.

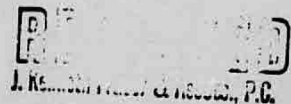
The Division is cognizant that there are several proposals for hydropower development on the Poestenkill and reserves the right to further consultation and to develop more specific comments, recommendations and/or conditions pertaining to the environmental concerns for your project at a future date.

If we can be of further assistance, please contact my office at (518) 457-6179.

Yours truly,


J. Douglas Sheppard
Supervising Aquatic Biologist

Enclosure
JDS:MPS:jh


J. K. FRASER & ASSOC., P.C.

MAR 22 1982

FISHERIES & WILDLIFE RESOURCE INFORMATION FOR THE
POESTENKILL - VICINITY OF TROY

The New York State Department of Environmental Conservation, Division of Fish & Wildlife currently manages the lower 1.2 miles of the Poestenkill for brown trout, warmwater fishes and also as spawning and nursery area for anadromous Hudson River fish. Above the Mt. Ida Falls which are approximately 1.2 miles from the river mouth, the Division manages the Poestenkill as a mixed coldwater - warmwater fisheries resource. The only recent information for this section of the Poestenkill is a DEC fisheries management survey conducted during July, 1981. However, this information is not yet available in its final form. Nevertheless, the following species lists contain those fish which were found during the 1981 survey:

River Mile: 0.0 - 1.2

Brown trout
American eel
Alewife
Smallmouth Bass
Redbreast sunfish
Bluegill
Rock Bass
Suckers
Minnows
Darters

River Mile: 1.2 - 22

Brown trout
American eel
Pumpkinseed
Largemouth Bass
Rock Bass
Bluegill
Suckers
Minnows
Darters

The presence of brown trout is largely attributable to the annual DEC stocking program which currently introduces 4200 yearling brown trout each spring to a 10.6 mile section of the Poestenkill between tributaries 10 and 27.

The Division of Fish and Wildlife currently considers the Mount Ida Falls (R.M. 1.2) to be the first naturally-impassable barrier on the Poestenkill. As such, upstream passage of anadromous fishes beyond these falls is not presently a management concern. However, the maintenance and/or enhancement of the Poestenkill downstream of Mount Ida Falls as a spawning and nursery area for anadromous species is a primary management concern.

The Division of Fish and Wildlife does not have any quantified information on the angler effort in the lower Poestenkill. However, the Division does consider these waters to be a valuable multi-species fisheries resource. Therefore, potential developers must address the potential environmental impacts resulting from the proposed construction and operational aspects associated with these proposed hydropower facilities.

A review will be conducted into the presence of endangered species or significant habitats within the vicinity of the proposed projects. These determinations will be provided to prospective developer(s) when available.

A preliminary review has indicated that there are no wetlands in the vicinity of either the Mount Ida or Buttermilk Falls project sites that would conflict, at this time, with the proposed developments.

No DEC site-specific inventory material exists for the wildlife resources within the vicinity of Mount Ida or Buttermilk Falls. Therefore, it will be necessary for the potential developer to obtain said information and incorporate it into the environmental report.

JDS:MPS:jh
3/82



NEW YORK STATE PARKS & RECREATION Agency Building 1 Empire State Plaza Albany New York 12238 Information 518 474 2166
Orin Lehman, Commissioner *0-14*

March 29, 1982

J. Kenneth Fraser and Associates, P.C.
620 Washington Avenue
Rensselaer, New York 12144

Attention: Mr. Stephen F. Burke

RE: F.E.R.C. Project No. 5465
Mt. Ida Project

Dear Sir:

We have reviewed the draft Application for Exemption from Licensing of the Mt. Ida proposal and wish to advise the projected needs for additional recreational facilities in Rensselaer County are those associated with swimming, camping, tennis, picnicking, boating, field games, cross country skiing, and snowmobiling.

We request that contribution to the satisfaction of these needs be evaluated and provided along with informative signage, improvement and/or expansion of the existing trailway, viewing, and parking areas; all as may be practicable and compatible with the safe and efficient operation of the facility.

Thank you for providing us the opportunity to review and to comment on this report.

Sincerely,

[Signature]
Roy Roberts
Sr. Marine Services Representative

RECEIVED 3/31/82

J. Kenneth Fraser and Associates
620 Washington Avenue
Rensselaer, New York 12144

TO	✓	Initial
RF		
J.Fr.		
RAF		
J.A.B.	✓	<i>[Initials]</i>
S.B.	✓	<i>[Initials]</i>

RR:cm
cc: Richard England

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233
Division of Regulatory Affairs, Room 514



Robert F. Flacke
Commissioner

April 20, 1982

Mr. Stephen F. Burke
J. Kenneth Fraser Associates
620 Washington Avenue
Rensselaer, NY 12144

RE: Hydroelectric redevelopment by
Mt. Ida Associates on the Poestenkill
Gorge in the City of Troy, Rensselaer
Co., NY. Appl. for Exemption of License
FERC #5465-001

This is to advise you that the information you provided
regarding the referenced project has been distributed for
review, as follows:

NYS Department of Environmental Conservation

- Division of Fish & Wildlife
- Division of Water Resources
- Division of Lands & Forests
- Division of Regulatory Affairs

NYS Public Service Commission

NYS Office of Parks & Recreation

- Office of Central Planning
- State Historic Preservation Officer

NYS Department of Transportation

NYS Adirondack Park Agency

RECEIVED 4/26/82
J. Kenneth Fraser & Assoc.
Consulting Engineers

TO	✓	Initial	Action
JKF			
JF Jr.	✓		
RAF	✓		
WTB			
KNS			
J.A.B.	✓	B	
SB	✓		

2.

The DEC will also coordinate its review with the US Fish and Wildlife Service and the Corps of Engineers.

If you have any questions I can be reached at 518-457-7418.

Very truly yours,

Murdock M. MacKenzie, Chief
Bureau of General Project Review

MMK/ssf



NEW YORK STATE PARKS & RECREATION

Dir. Lehman, Commissioner

April 22, 1982

J. Kenneth Fraser & Associates, P.C.
620 Washington Avenue
Rensselaer, New York 12144

Attn: Mr. Stephen F. Burke

RE: Mt. Ida Hydroelectric Redevelopment
Project FERC No. 5465

Dear Sir:

With reference to our conservation of even date this Office is satisfied that the physical character of the project site is such that recreational use of the area should be markedly restricted.

Accordingly, as agreed, this Office will restrict its request to the rehabilitation and maintenance of the existing trail and observation deck, and provision of suitable signage.

Sincerely,

Roy Roberts
Roy Roberts
Sr. Marine Services Representative

RR/eh

C: Richard England

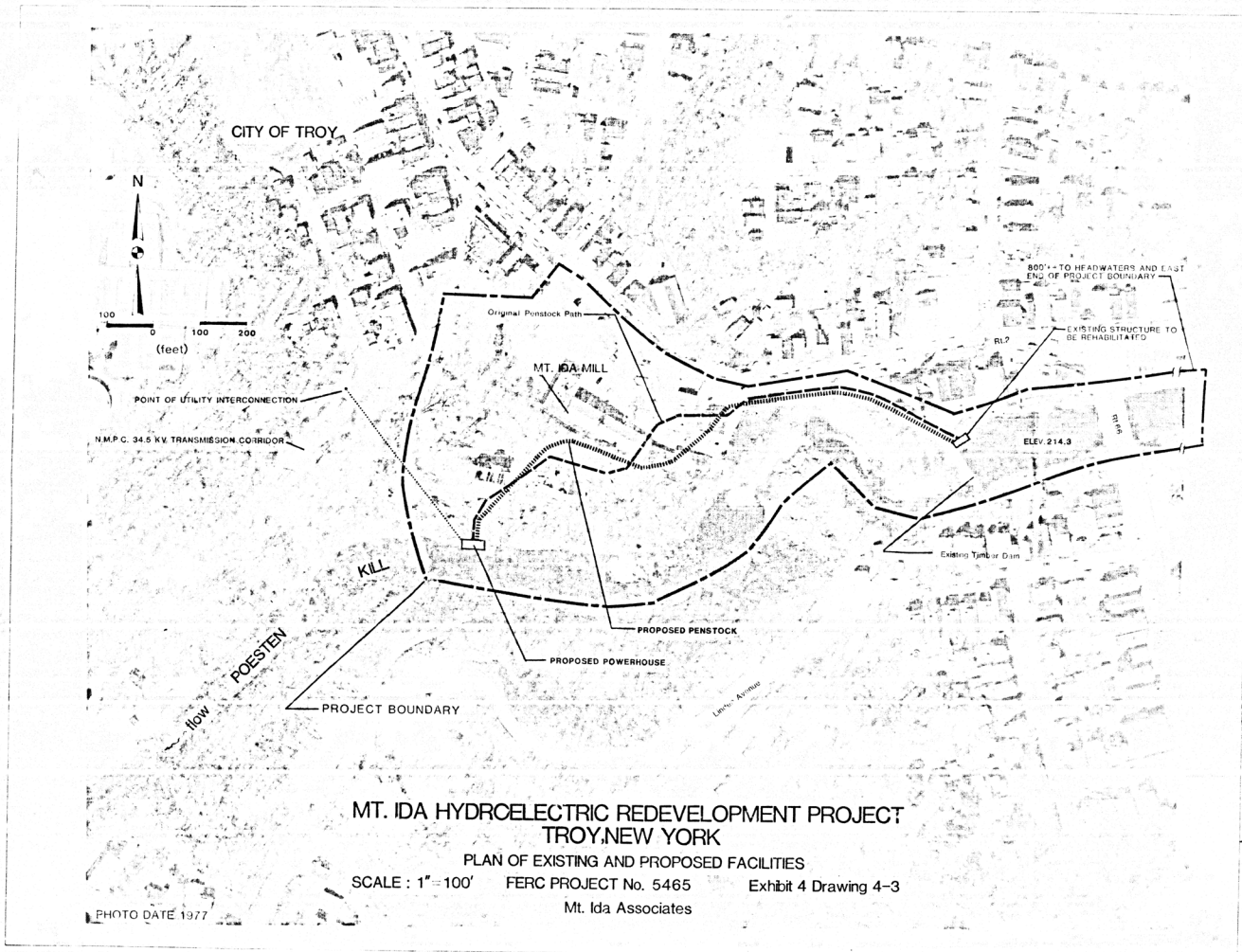
RECEIVED. 4/26/82			
J. Kenneth Fraser & Assoc. Consulting Engineers			
TO	✓	Initial	Action
JKF			
JFJr.			
RAF			
WTB			
HNS			
J.A.B.	✓		
S.B.	✓		

EXHIBIT G

V. EXISTING AND PROPOSED PROJECT WORKS

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22

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17
22



**MT. IDA HYDROELECTRIC REDEVELOPMENT PROJECT
TROY, NEW YORK**

PLAN OF EXISTING AND PROPOSED FACILITIES

SCALE : 1" = 100' FERC PROJECT No. 5465 Exhibit 4 Drawing 4-3

Mt. Ida Associates

PHOTO DATE 1977

EXHIBIT 5
SHEET 1
8205070334
DATE
REV
BY
SCALE 1" = 100'
EXISTING AND PROPOSED FACILITIES
MT. IDA HYDROELECTRIC REDEVELOPMENT PROJECT
TROY, NEW YORK

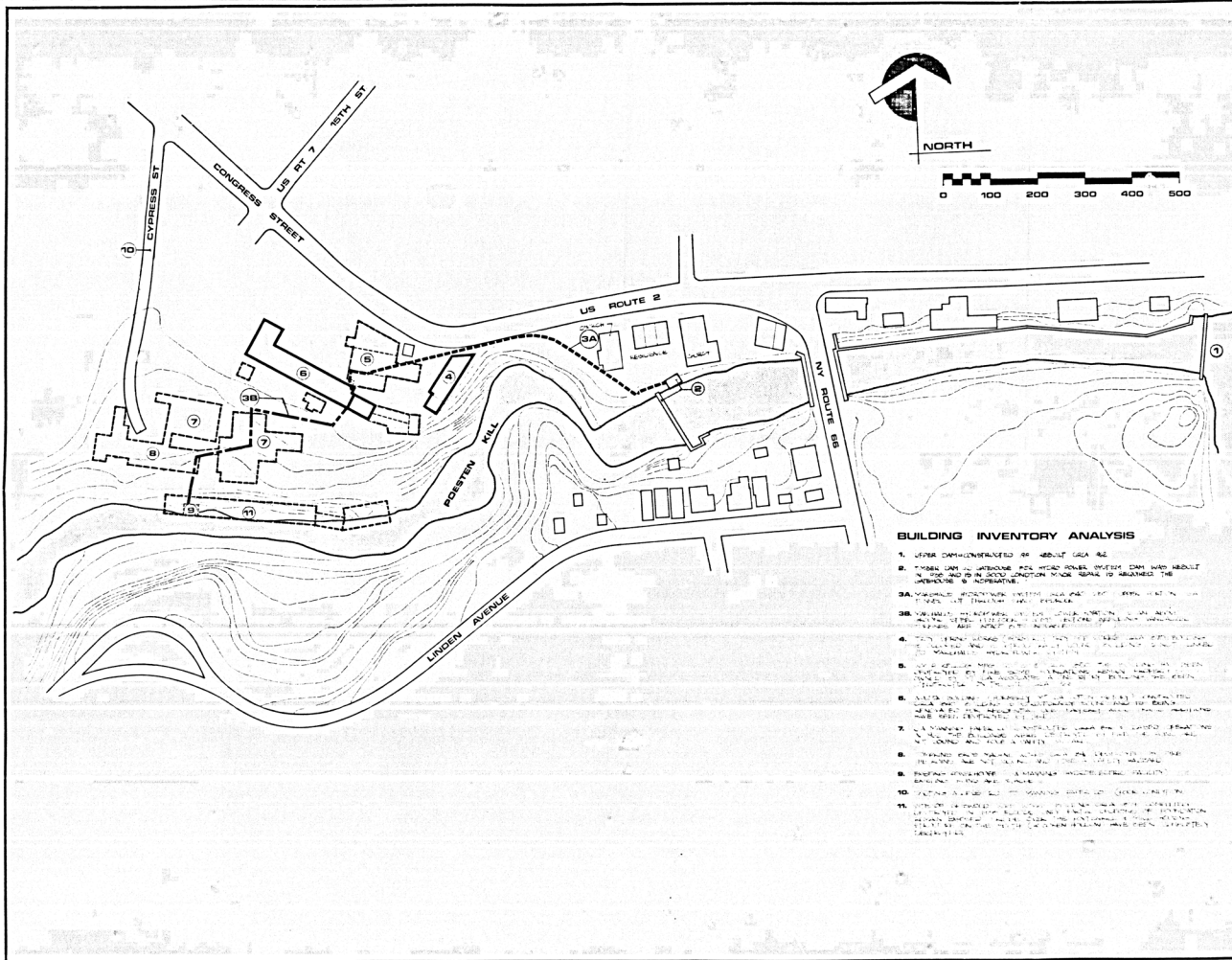


EXHIBIT E
 SHEET 3
 8205070334-03
 JAT DRAWING NO.
 DATE:
 REV.:
 BY:
 SCALE: 1" = 100'
 IF THIS IS NOT 22" x 34"
 IT IS A REDUCED PRINT
 SCALE ACCORDINGLY

HISTORIC MILL STRUCTURES

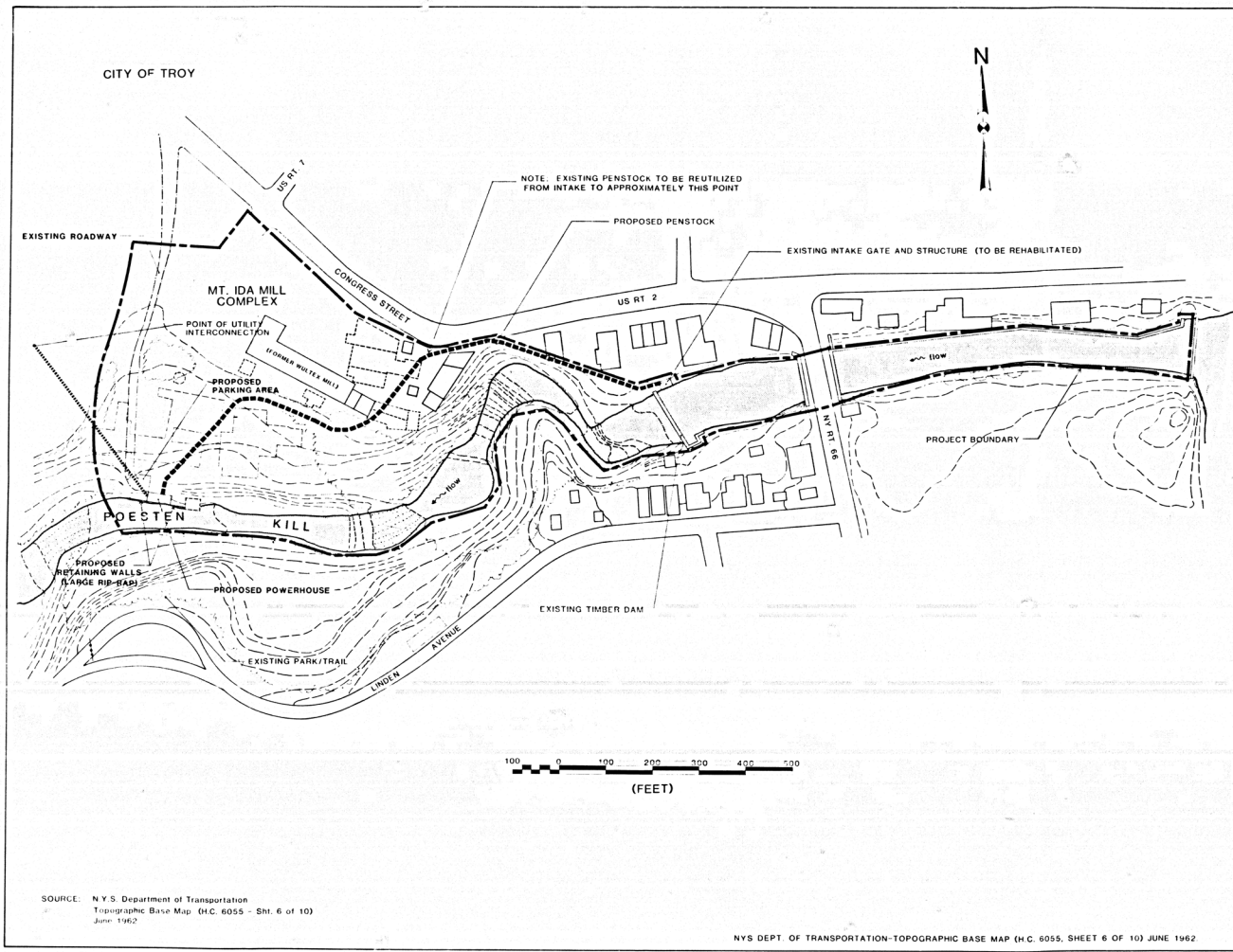
MT. IDA
 HYDROELECTRIC
 REDEVELOPMENT
 PROJECT
 TROY, NEW YORK

J. Kenneth Fraser and Associates, P.C. Consulting Engineers

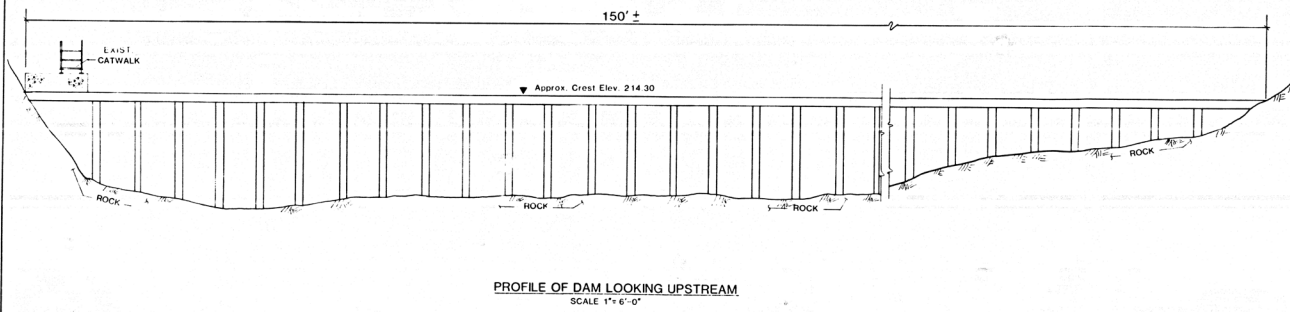
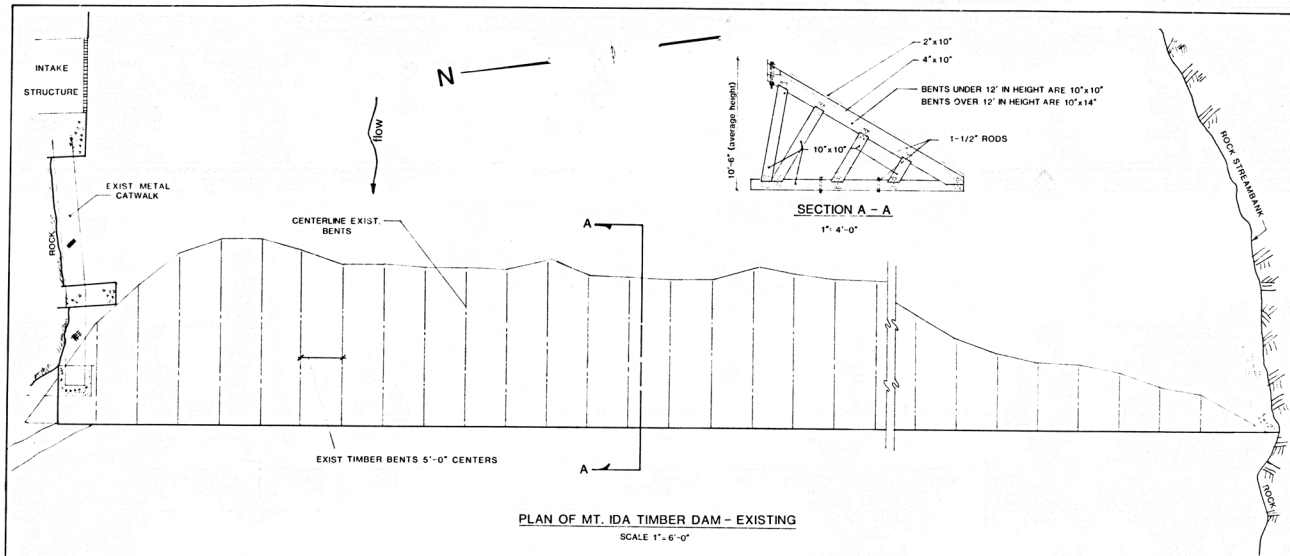
BUILDING INVENTORY ANALYSIS

1. VISUAL OBSERVATION/ANALYSIS OF SUBJECT AREA
2. VISUAL DATA AND INFORMATION FOR THIS ANALYSIS WERE OBTAINED FROM VISUAL SURVEYS OF THE SUBJECT AREA AND FROM AERIAL PHOTOGRAPHS OF THE SUBJECT AREA.
- 3A. VISUAL DATA AND INFORMATION WERE OBTAINED FROM VISUAL SURVEYS OF THE SUBJECT AREA AND FROM AERIAL PHOTOGRAPHS OF THE SUBJECT AREA.
- 3B. VISUAL DATA AND INFORMATION WERE OBTAINED FROM VISUAL SURVEYS OF THE SUBJECT AREA AND FROM AERIAL PHOTOGRAPHS OF THE SUBJECT AREA.
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9. VISUAL DATA AND INFORMATION WERE OBTAINED FROM VISUAL SURVEYS OF THE SUBJECT AREA AND FROM AERIAL PHOTOGRAPHS OF THE SUBJECT AREA.
10. VISUAL DATA AND INFORMATION WERE OBTAINED FROM VISUAL SURVEYS OF THE SUBJECT AREA AND FROM AERIAL PHOTOGRAPHS OF THE SUBJECT AREA.

THIS DRAWING IS A PART OF THE APPLICATION FOR EXEMPTION MADE BY THE UNDERSIGNED THIS THE 26th DAY OF APR 82
 By: _____
 Title: OWNER



<p>EXHIBIT G</p> <p>SHEET 1</p> <p>8205070334-04</p> <p>REF. DRAWING NO. 1221</p> <p>DATE:</p> <p>REV.:</p> <p>BY:</p> <p>SCALE: 1" = 100'</p> <p>IF THIS IS NOT 22" x 34" IT IS A REDUCED PRINT SCALE ACCORDINGLY</p>
<p>EXISTING CONDITIONS AND PROPOSED REDEVELOPMENT PLAN</p>
<p>MT. IDA HYDROELECTRIC REDEVELOPMENT PROJECT</p> <p>TROY, NEW YORK</p> <p>ENGINEER: F. J. ...</p>
<p>THIS DRAWING IS A PART OF THE APPLICATION FOR EXEMPTION MADE BY THE UNDERSIGNED ON THE 26th DAY OF APR 82.</p> <p>By: _____</p> <p>Title: OWNER</p>



SOURCE.
PLANS BY JAMES W. GARTIN P.E.
DATE OF PLAN: MARCH 15, 1940

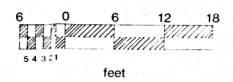


EXHIBIT G
SHEET 2
8205070334-05
OF DRAWING NO. 5214

DATE:

REV.: O

BY: GLM

SCALE: AS NOTED
IF THIS IS NOT 22" x 34"
IT IS A REDUCED PRINT
SCALE ACCORDINGLY

PLAN, PROFILE & SECTION
OF EXISTING DAM

MT. IDA
HYDROELECTRIC
REDEVELOPMENT
PROJECT
TROY, NEW YORK

J. K. RICHIE & ASSOCIATES, P.C. Consulting Engineers

*THIS DRAWING IS A PART
OF THE APPLICATION FOR
EXEMPTION MADE BY THE
UNDERSIGNED THIS THE
26th DAY OF APR. 82

By: [Signature]

Title: OWNER

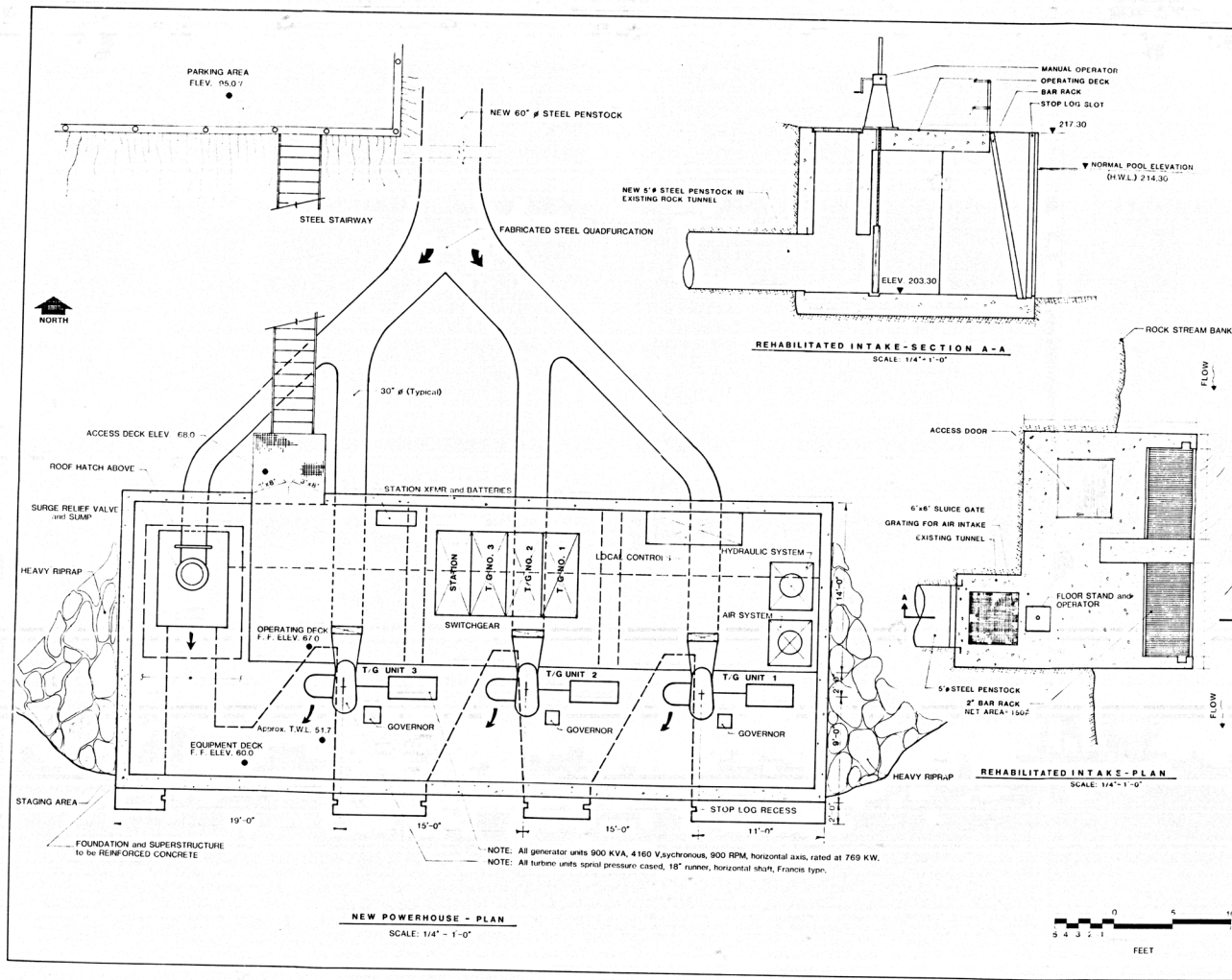
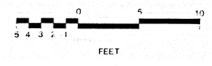


EXHIBIT G	
SHEET 3	
2205020334-06	
JPE DRAWING NO. 5220	
DATE:	
REV.:	
BY:	
SCALE: IF THIS IS NOT 22" x 34" IT IS A REDUCED PRINT SCALE ACCORDINGLY	
PROPOSED POWERHOUSE: PLAN	PROPOSED INTAKE: PLAN & SECTION
MT. IDA HYDROELECTRIC REDEVELOPMENT PROJECT TROY, NEW YORK <small>J. Kenneth Fraser and Associates, P.C., Consulting Engineers</small>	
THIS DRAWING IS A PART OF THE APPLICATION FOR EXEMPTION MADE BY THE STATE OF NEW YORK ON _____ DAY OF _____, 20____.	
By _____	Title OWNER

NOTE: All generator units 900 KVA, 4160 V, synchronous, 900 RPM, horizontal axis, rated at 769 KW.
 NOTE: All turbine units spiral pressure cased, 18" runner, horizontal shaft, Francis type.



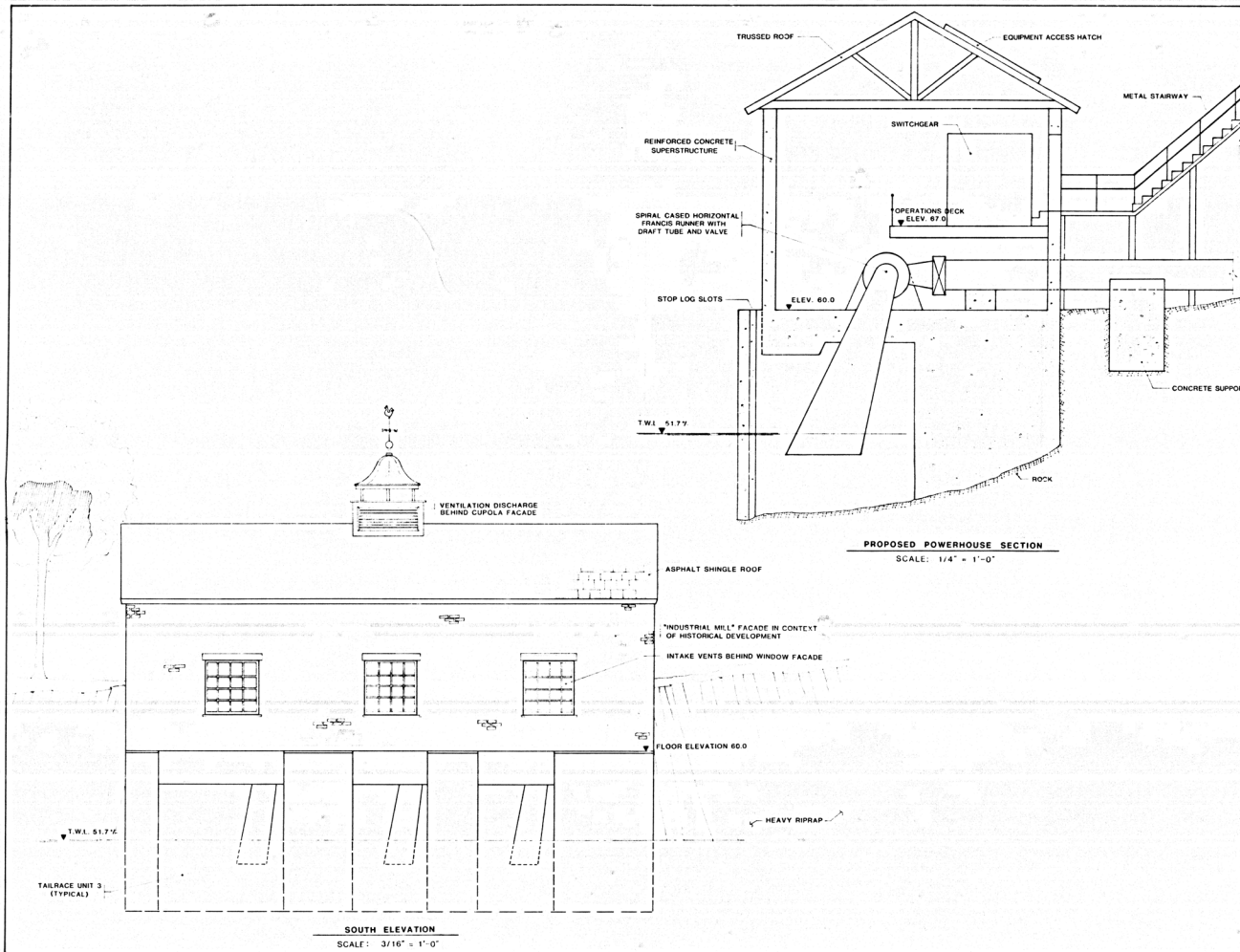
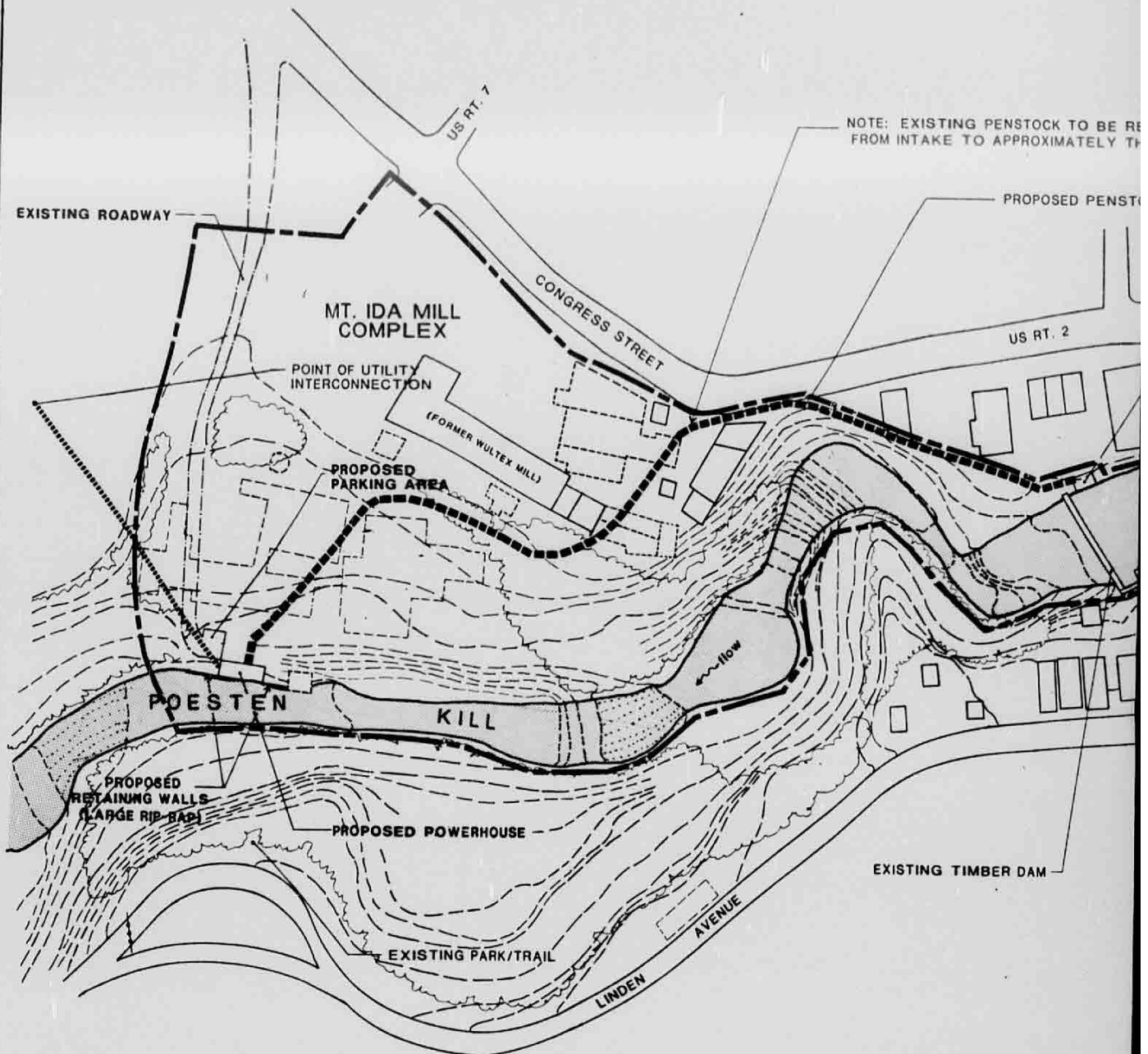
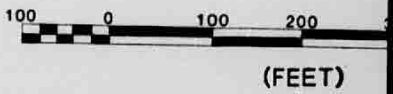


EXHIBIT G
SHEET 4
8205070334-07
JAF DRAWING NO. 5277
DATE:
REV.:
BY:
SCALE: IF THIS IS NOT 22" x 34" IT IS A REDUCED PRINT SCALE 1" = 5000RIPPLY
PROPOSED POWERHOUSE: ELEVATION AND SECTION
MT. IDA HYDROELECTRIC REDEVELOPMENT PROJECT TROY, NEW YORK
J. GERRIST, FRASER AND ASSOCIATES, P.C., Consulting Engineers
THIS DRAWING IS A PART OF THE APPLICATION FOR EXEMPTION MADE BY THE UNDERSIGNED THIS THE 26th DAY OF APR 82
By: _____ Title: OWNER

CITY OF TROY



NOTE: EXISTING PENSTOCK TO BE REMOVED FROM INTAKE TO APPROXIMATELY THE POWERHOUSE



SOURCE: N.Y.S. Department of Transportation
Topographic Base Map (H.C. 6055 - Sht. 6 of 10)
June 1962

EXHIBIT G
SHEET 1

JKF DRAWING No. 5221

DATE:

REV.:

BY:

SCALE: 1" = 100'
IF THIS IS NOT 22"x34"
IT IS A REDUCED PRINT
-SCALE ACCORDINGLY

EXISTING CONDITIONS
AND
PROPOSED REDEVELOPMENT PLAN

MT. IDA
HYDROELECTRIC
REDEVELOPMENT
PROJECT

TROY, NEW YORK

J. Kenneth Fraser and Associates, P.C., Consulting Engineers

THIS DRAWING IS A PART
OF THE APPLICATION FOR
EXEMPTION MADE BY THE
UNDERSIGNED THIS THE
26th DAY OF APR. 82

By: *[Signature]*

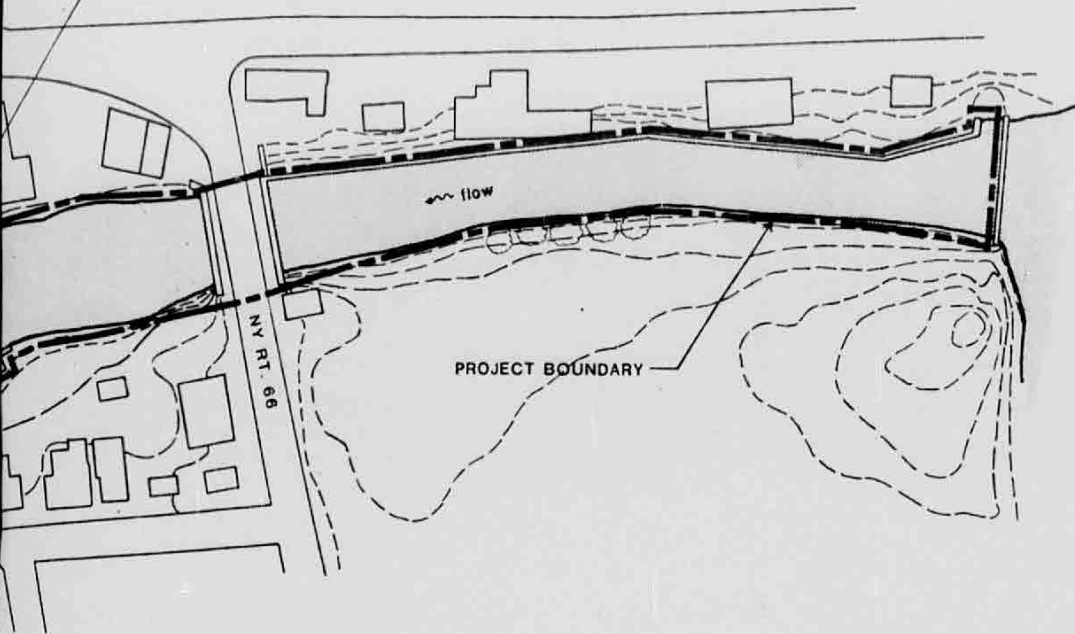
Title: OWNER



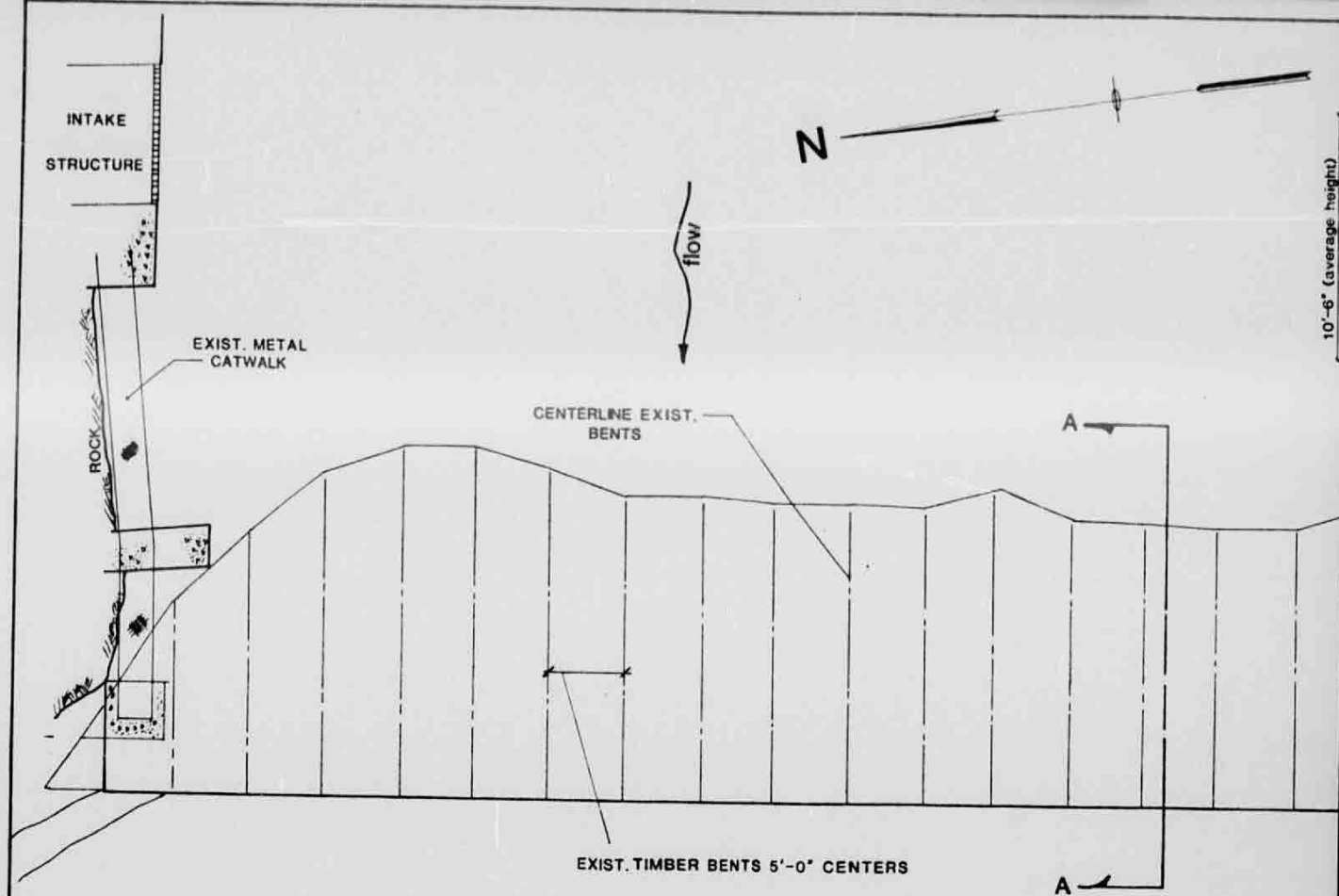
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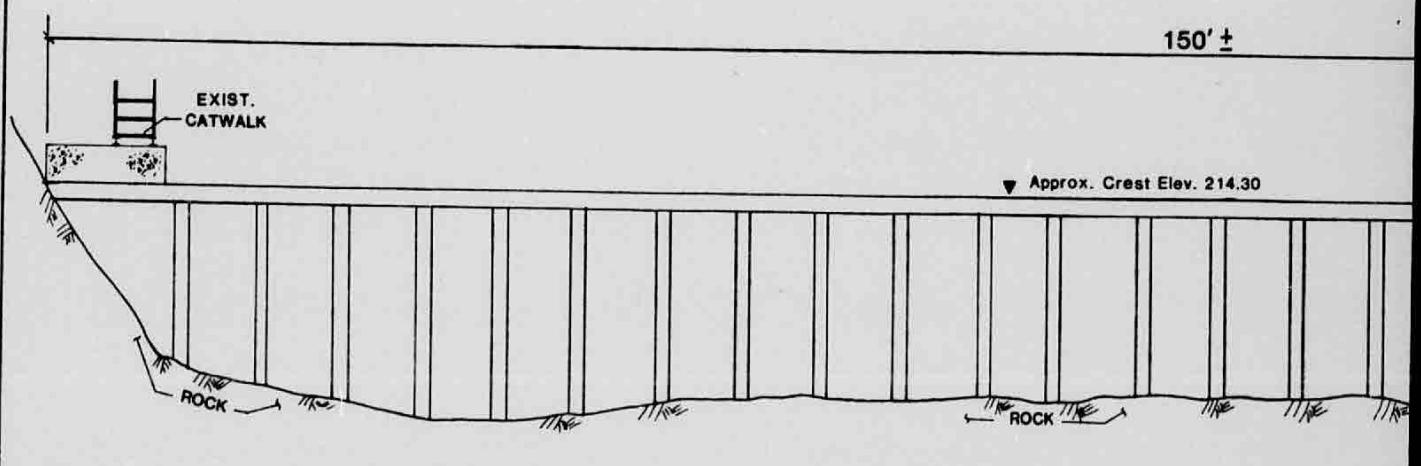
EXISTING INTAKE GATE AND STRUCTURE (TO BE REHABILITATED)



00 400 500



PLAN OF MT. IDA TIMBER DAM -
SCALE 1" = 6'-0"



PROFILE OF DAM LOOKING UPSTREAM
SCALE 1" = 6'-0"

SOURCE :
PLANS BY JAMES W. GARTIN P.E.
DATE OF PLAN: MARCH 15, 1940

EXHIBIT G
SHEET 2

JKF DRAWING No. 6218

DATE:

REV.: O

BY: GLM

SCALE: AS NOTED
IF THIS IS NOT 22"x34"
IT IS A REDUCED PRINT
-SCALE ACCORDINGLY

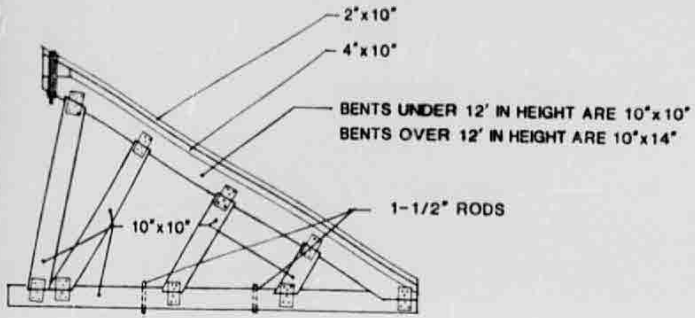
PLAN, PROFILE & SECTION
OF EXISTING DAM

MT. IDA
HYDROELECTRIC
REDEVELOPMENT
PROJECT
TROY, NEW YORK

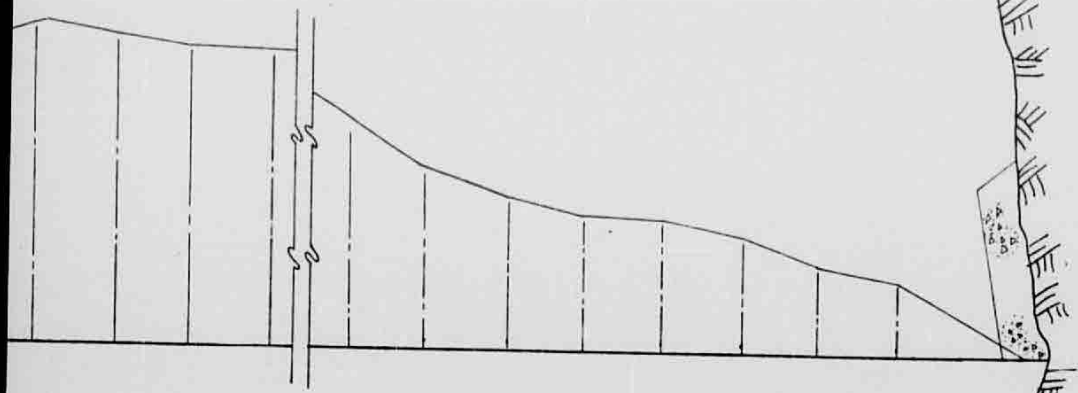
J. Kenneth Fraser and Associates, P.C., Consulting Engineers

THIS DRAWING IS A PART
OF THE APPLICATION FOR
EXEMPTION MADE BY THE
UNDERSIGNED THIS THE
26th DAY OF APR. 82

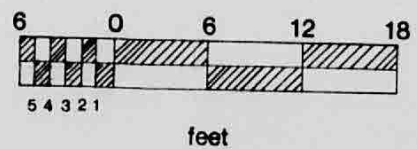
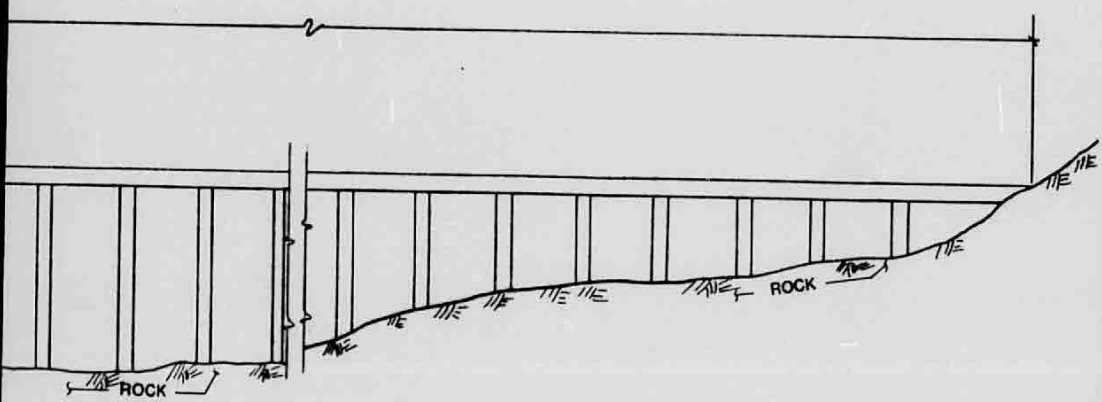
By: *[Signature]*
Title: OWNER

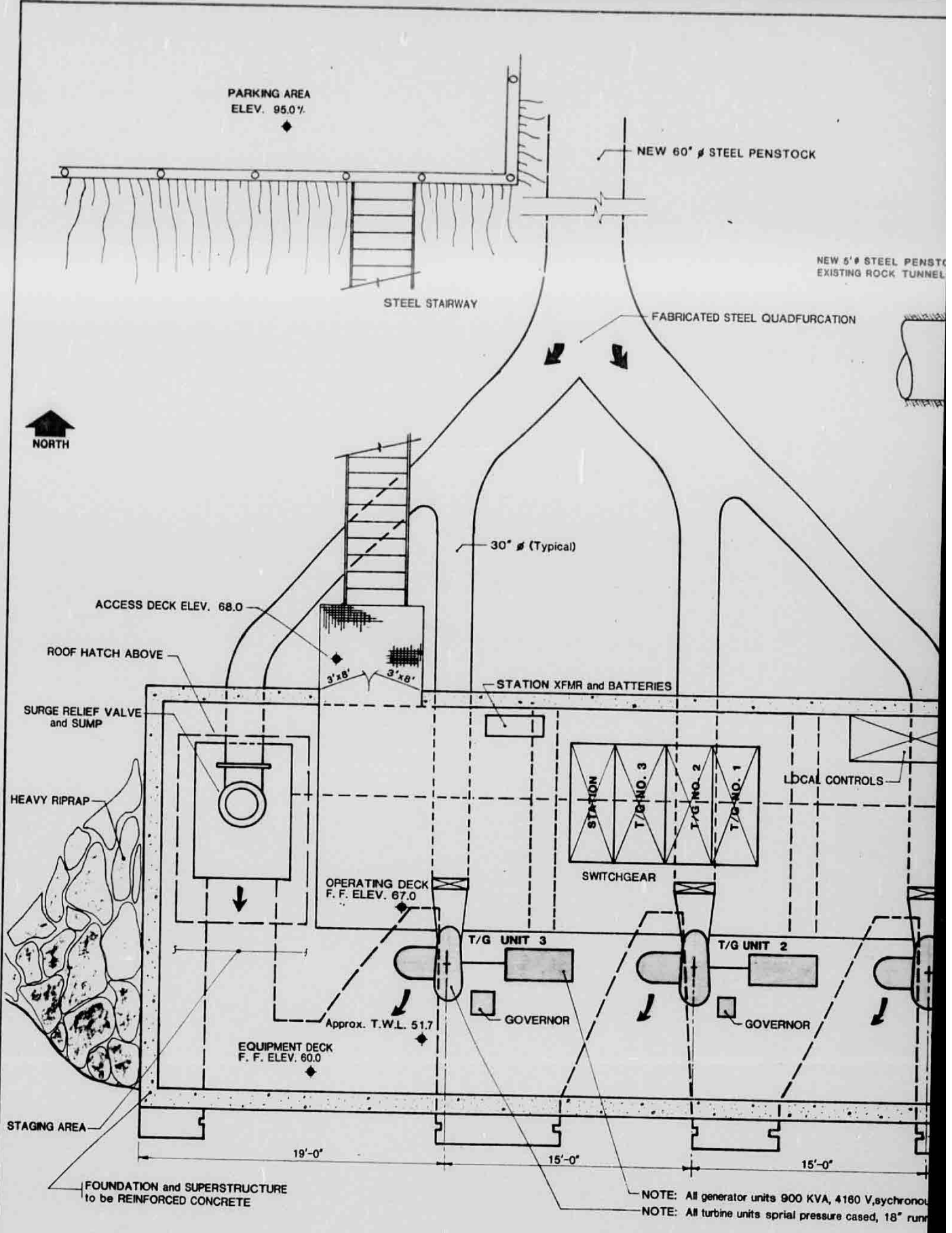


SECTION A - A
1" = 4'-0"



EXISTING





PARKING AREA
ELEV. 95.0'

NEW 60" ϕ STEEL PENSTOCK

NEW 5" ϕ STEEL PENSTOCK
EXISTING ROCK TUNNEL

STEEL STAIRWAY

FABRICATED STEEL QUADFURCATION



30" ϕ (Typical)

ACCESS DECK ELEV. 68.0

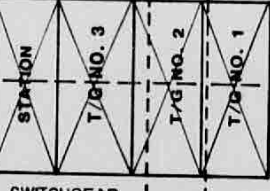
ROOF HATCH ABOVE

STATION XFMR and BATTERIES

SURGE RELIEF VALVE
and SUMP

LOCAL CONTROLS

HEAVY RIPRAP



OPERATING DECK
F. F. ELEV. 67.0

SWITCHGEAR

T/G UNIT 3

T/G UNIT 2

GOVERNOR

GOVERNOR

Approx. T.W.L. 51.7

EQUIPMENT DECK
F. F. ELEV. 60.0

STAGING AREA

19'-0"

15'-0"

15'-0"

FOUNDATION and SUPERSTRUCTURE
to be REINFORCED CONCRETE

NOTE: All generator units 900 KVA, 4180 V, synchronous
NOTE: All turbine units spiral pressure cased, 18" runner

NEW POWERHOUSE - PLAN

SCALE: 1/4" = 1'-0"

EXHIBIT G

SHEET 3

JKF DRAWING No. 5220

DATE:

REV.:

BY:

SCALE:
IF THIS IS NOT 22"x34"
IT IS A REDUCED PRINT
-SCALE ACCORDINGLY

PROPOSED POWERHOUSE: PLAN
PROPOSED INTAKE: PLAN & SECTION

MT. IDA
HYDROELECTRIC
REDEVELOPMENT
PROJECT

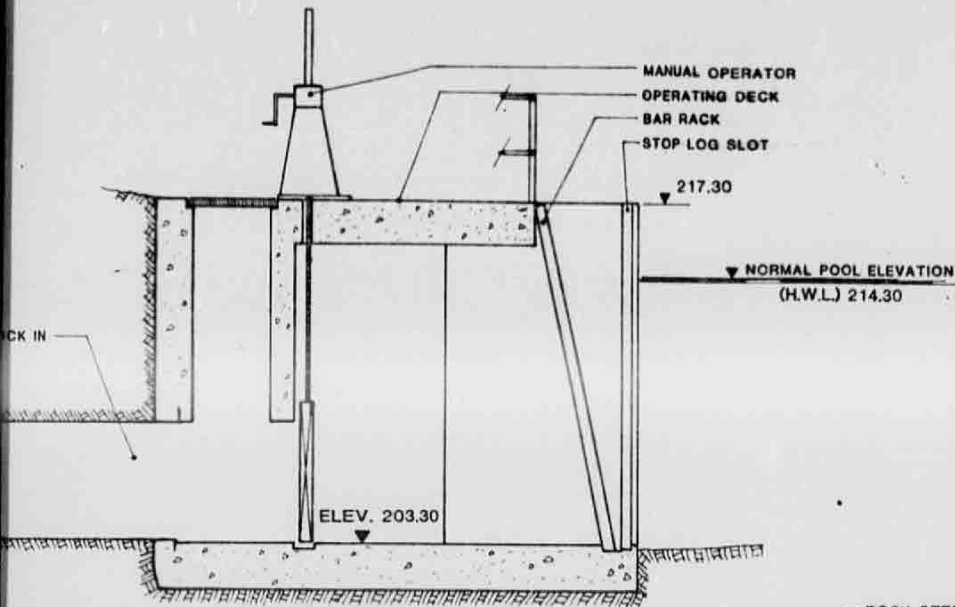
TROY, NEW YORK

J. Kenneth Fraser and Associates, P.C., Consulting Engineers

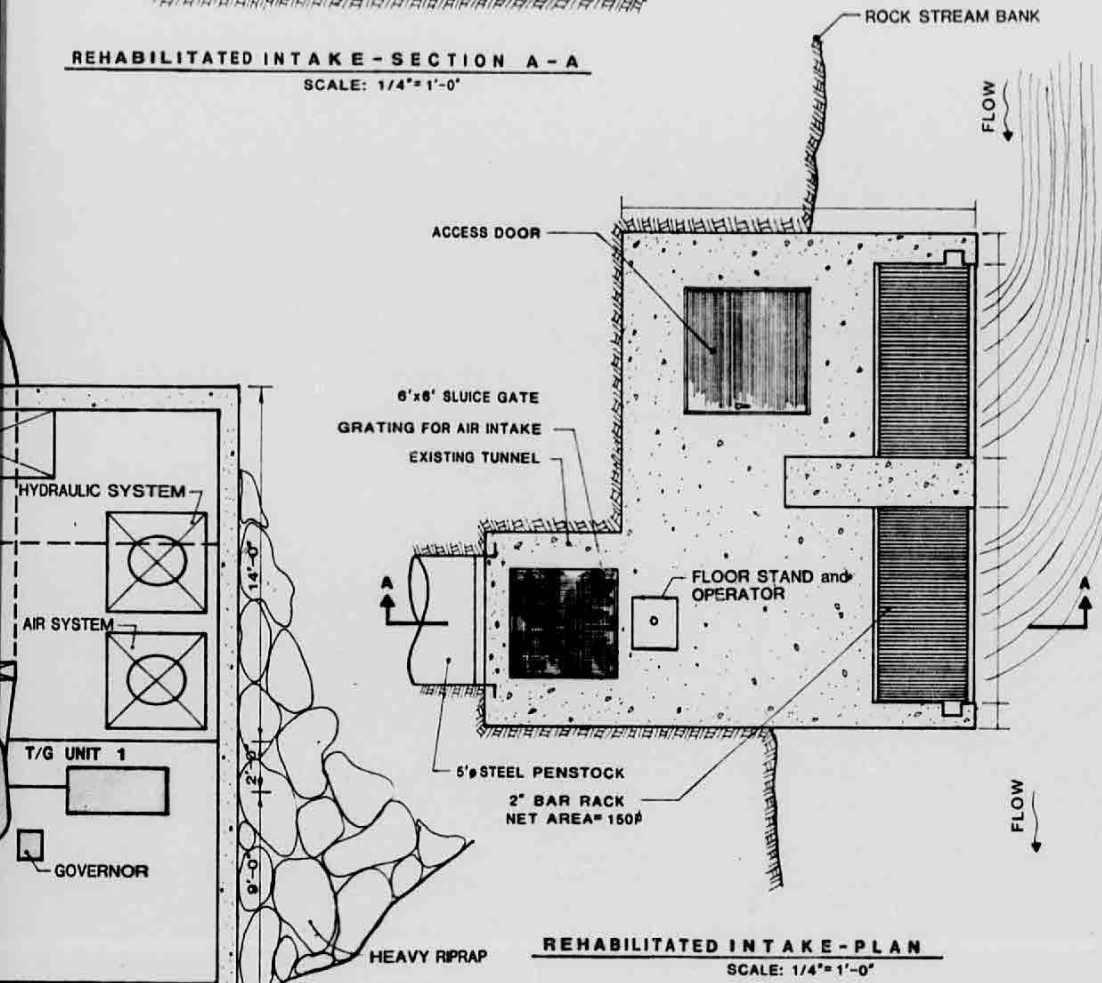
THIS DRAWING IS A PART
OF THE APPLICATION FOR
EXEMPTION MADE BY THE
UNDERSIGNED THIS THE
28th DAY OF APR. 82

By: *[Signature]*

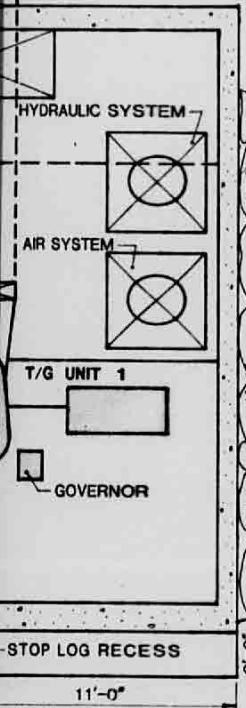
Title: OWNER



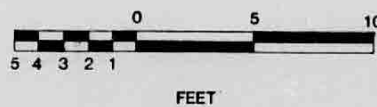
REHABILITATED INTAKE - SECTION A - A
SCALE: 1/4" = 1'-0"



REHABILITATED INTAKE - PLAN
SCALE: 1/4" = 1'-0"



900 RPM, horizontal axis, rated at 769 KW.
Francis type.

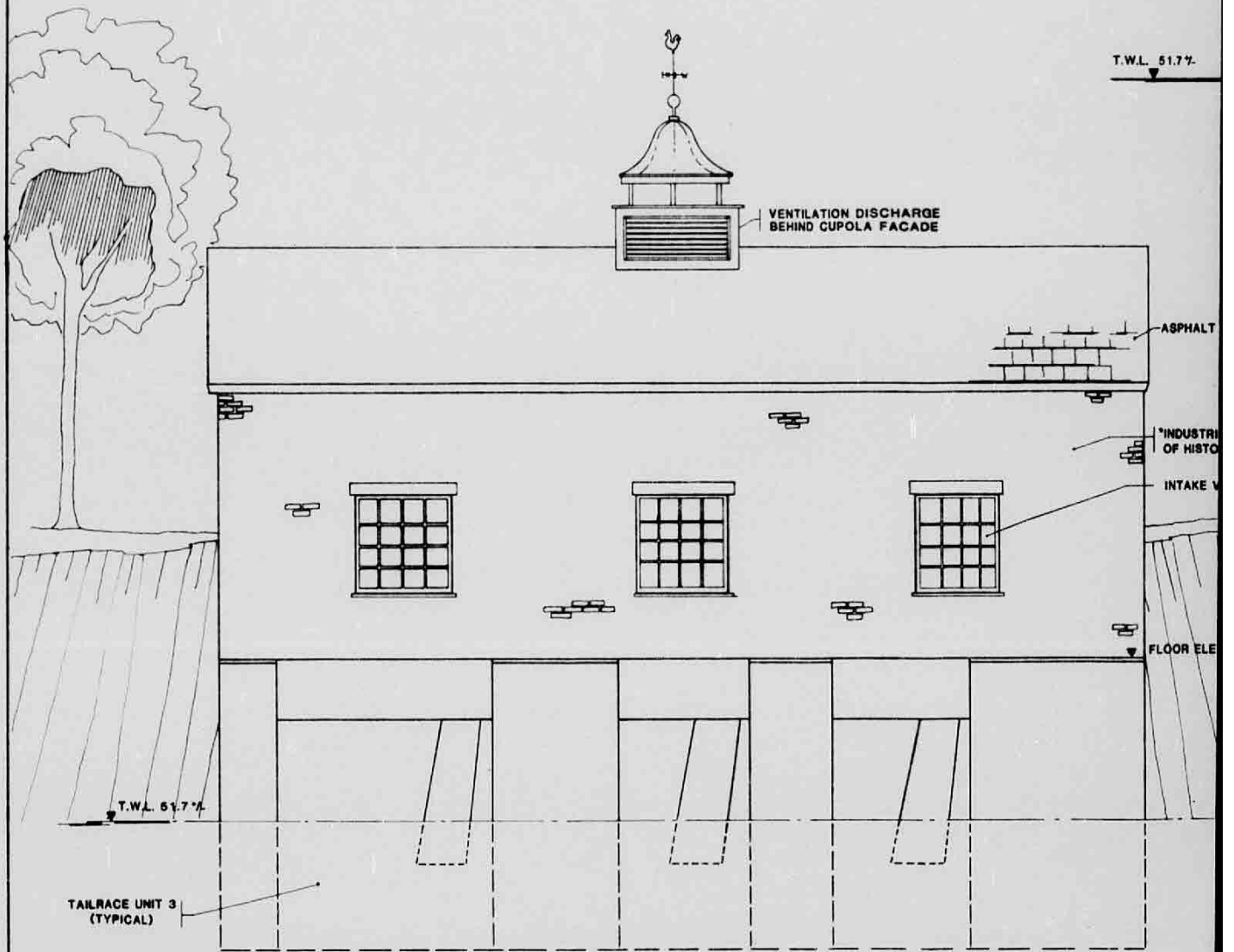


REINFORCED CON
SUPERSTRUCTU

SPIRAL CASED HOR
FRANCIS RUNNER
DRAFT TUBE AND V

STOP LOG SL

T.W.L. 51.7%



SOUTH ELEVATION

SCALE: 3/16" = 1'-0"

JKF DRAWING No. 8217

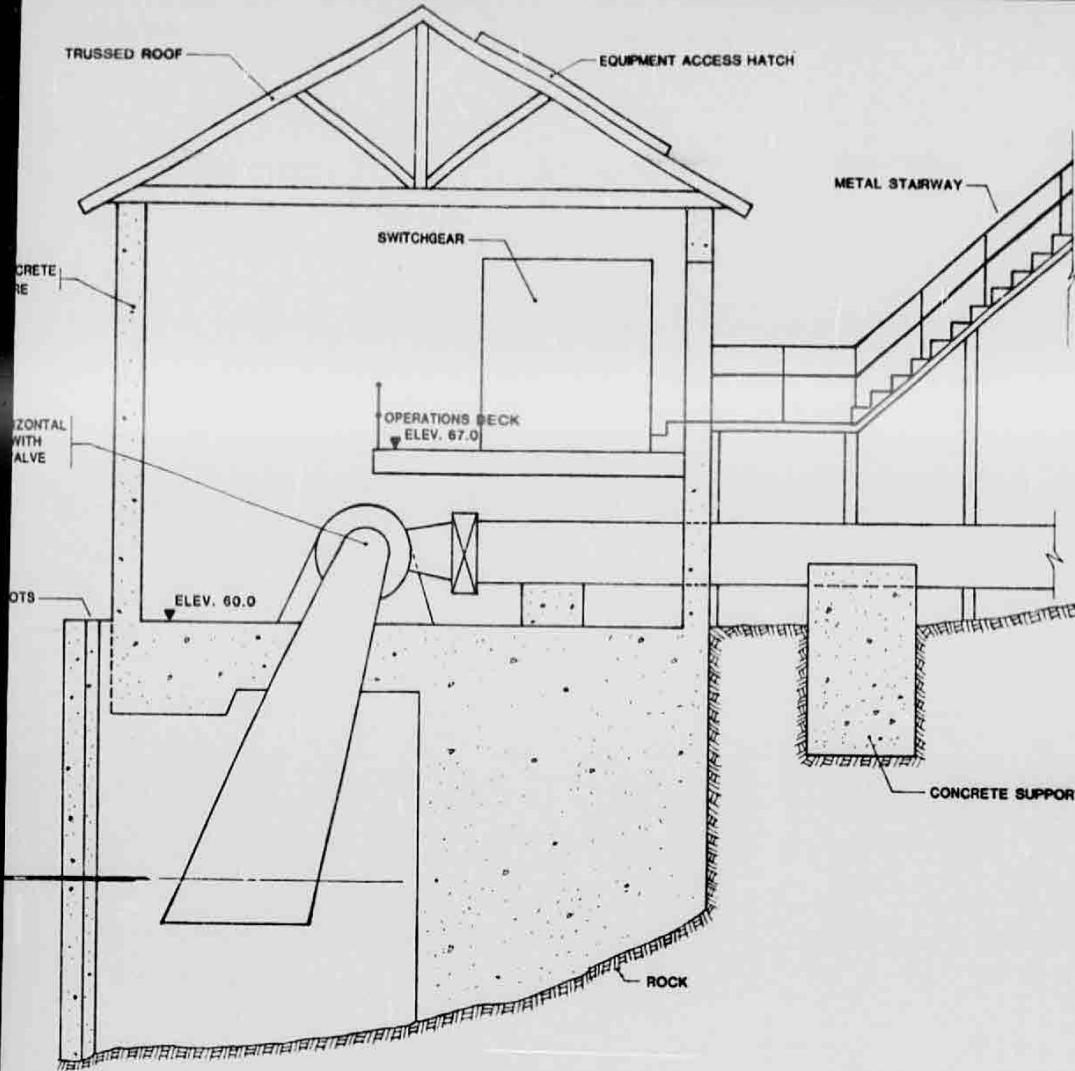
DATE:

REV.:

B/:

SCALE:
IF THIS IS NOT 22"x34"
IT IS A REDUCED PRINT
-SCALE ACCORDINGLY

**PROPOSED POWERHOUSE:
ELEVATION AND SECTION**



PROPOSED POWERHOUSE SECTION

SCALE: 1/4" = 1'-0"

SHINGLE ROOF

AL MILL FACADE IN CONTEXT
RICAL DEVELOPMENT

ENTS BEHIND WINDOW FACADE

ELEVATION 60.0

HEAVY RIPRAP

**MT. IDA
HYDROELECTRIC
REDEVELOPMENT
PROJECT**

TROY, NEW YORK

J. Kenneth Fraser and Associates, P.C., Consulting Engineers

THIS DRAWING IS A PART
OF THE APPLICATION FOR
EXEMPTION MADE BY THE
UNDERSIGNED THIS THE
26th DAY OF APR. 82

By: *W. J. ...*

Title: OWNER

APPENDIX

A. DOCUMENTATION OF SUFFICIENT PROPERTY INTEREST TO DEVELOP

KROLICK AND DEGRAFF

ATTORNEYS AND COUNSELLORS AT LAW

THE ARGUS BUILDING

FOUR HUNDRED TEN BROADWAY

ALBANY, NEW YORK 12207

TELEPHONE (518) 465-2333

April 27, 1982

Federal Energy Regulatory Commission
825 North Capitol Street, N.E.
Washington, D.C. 20426

Re: Project No. 5465
Mt. Ida Small Hydroelectric Project
Application for Exemption from Part I
of the Federal Power Act
File No. 020101:810216

Gentlemen:

We represent Mt. Ida Associates, a partnership organized and existing under the laws of the State of New York and the applicant for exemption from Part I of the Federal Power Act with respect to the above-referenced project (the "Project").

Title Guarantee of New York has prepared a report of title (the "title report") concerning the "real property interests" (as such quoted phrase is defined in the regulations of the Federal Energy Regulatory Commission) necessary to develop and operate the Project. We have reviewed the title report and such other documents and proceedings as we have deemed necessary to render the opinion expressed below.

Based on the foregoing, it is our opinion that Mt. Ida Associates hold fee title to, or has obtained authorization, pending judicial approval, for the conveyance to it of, all of the "real property interests" necessary to develop and operate the Project, and that no basis exists for such judicial approval being withheld.

Very truly yours

KROLICK AND DEGRAFF

APPENDIX

B. SUPPORT MATERIAL - ENVIRONMENTAL REPORT, EXHIBIT E

Items

- 1) New York State Department of Labor: Unemployment Data (1974-80)
- 2) New York State Department of Commerce: 1980 Census Data
- 3) New York State Department of Environmental Conservation: Generic Concerns for Small Hydropower Development
- 4) New York State Office of Parks and Recreation, Division of Historic Preservation: National Register Nomination Form



STATE OF NEW YORK
DEPARTMENT OF LABOR

STATE OFFICE BUILDING CAMPUS
ALBANY, NEW YORK 12201

BUREAU OF LABOR MARKET INFORMATION
DIVISION OF RESEARCH AND STATISTICS

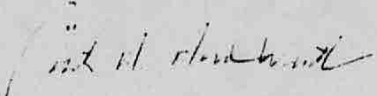
February 10, 1982

Mr. Jim Miller
Saratoga Associates
Old Saratoga Square
Saratoga Springs, NY 12866

Dear Mr. Miller:

Per our telephone conversation this date, the unemployment rate averages for the City of Troy (1974 - 1980) are listed below. We will forward the 1981 annual average when it becomes available.

Very truly yours,


Carter A. Andersson-Wintle
Senior Economist

CAAW:g

UNEMPLOYMENT RATE ANNUAL AVERAGE
CITY OF TROY
1974 - 1980

<u>Year</u>	<u>Rate</u>
1980	6.8%
1979	6.0
1978	6.9
1977	8.5
1976	9.0
1975	8.7
1974	5.3

GENERIC CONCERNS WITH
HYDROPOWER DEVELOPMENT IN NEW YORK
DIVISION OF FISH AND WILDLIFE
NEW YORK STATE DEPARTMENT OF
ENVIRONMENTAL CONSERVATION

The recent renewed interest in hydropower development in New York has created the need for an effective and efficient approach to identifying potential environmental impacts and, when necessary, mitigative actions as part of the federal licensing process. As part of its mandated responsibility for the fish and wildlife resources in New York, the Division of Fish and Wildlife conducts surveys and inventories on an ongoing basis to aid in the development of management objectives and the assessment of environmental impacts. To assist potential hydropower developers and/or their designated consultants with the design and operation of their proposed generating facilities and the preparation of the environmental report required as part of the application for a Federal Energy Regulatory Commission license or exemption, the Division of Fish and Wildlife is prepared to provide:

- (i) the available fisheries survey and inventory material, fisheries studies and assessments, and fisheries management objectives pertaining to the waters affected by proposed hydropower projects; and
- (ii) the available wildlife survey and inventory material, wildlife studies and assessments, and wildlife management objectives pertaining to the lands and waters affected by proposed hydropower projects.

If there is insufficient survey and inventory material available for the fish and/or wildlife resources, it may be necessary for potential developers and/or their designated consultant(s) to obtain additional data as part of the licensing process.

As well, the Division has compiled a set of generic fish and wildlife concerns associated with hydropower development which should be addressed by potential developers in their environmental reports. These concerns include proposed operational modes and water-level fluctuations, fish passage, water quality, endangered species, wetlands, significant habitats, public access (particularly for fishing, hunting and/or trapping) and construction activities. The following discussion is intended to provide direction to potential developers on what fish and wildlife concerns should be addressed in their environmental reports.

1. Operational Mode

The Division of Fish and Wildlife recognizes two general operational modes for hydropower facilities - (a) run-of-river and (b) storage-and-release which are defined as follows:

(a) Run-of-River Mode

A run-of-river operational mode shall be defined as one for which the instantaneous outflow from the impoundment (as turbine discharge, spillage, directed releases, and/or leakage) is always equal to the instantaneous inflow into the impoundment. The storage level of the impoundment is not permitted to fall below the crest of the dam/flashboards except in the case of emergency situations.

(b) Storage-and-Release Mode

A storage-and-release operational mode shall be defined as one for which the instantaneous outflow from the impoundment (as discharge, spillage, directed releases, and/or leakage) is not always equal to the instantaneous inflow to the impoundment. The storage level of the impoundment does fluctuate on some temporal basis (e.g. hourly, daily, weekly, or monthly). Two types of storage-and-release operational modes have been identified:

(i) Pulsing Mode

A pulsing operational mode shall be defined as one which operates on available flows and turbine head design. In most instances, the facility commences operation when the maximum impoundment storage level is attained and ceases operation when the impoundment is drawn down to some lower impoundment storage level (associated with the head capacity). This mode does not attempt to maximize the revenue-generating aspects of hydropower.

(ii) Peaking Mode

A peaking operational mode shall be defined as one which operates on available flows, turbine head design and in coordination with the system load requirements. In most instances, the facility commences operation in order to meet an increase in demand for the system above base-load capacity and ceases operation when not required. This mode does attempt to maximize the revenue-generating aspects of hydropower.

The Division of Fish and Wildlife prefers that all hydropower projects be operated in a "run-of-river" mode; however, projects which propose to operate in a "storage-and-release" mode will be considered provided that identified fish and wildlife concerns are mitigated. If a "storage-and-release" operational mode is being considered for all or part of a year, then potential developers must provide detailed daily flow descriptions for at least that time of occurrence. Such descriptions should consider variable hydrologic conditions (e.g. normal, wet and dry hydrologic years).

2. Fluctuations and Alterations in Water-Levels

If projects propose permanent alterations and/or fluctuations to the water-levels of the impoundments and/or downstream areas as a result of their operational mode, then potential developers must address the following concerns in their applications:

(a) Impoundments

The Division of Fish and Wildlife is concerned about proposed permanent alterations and temporary fluctuations to the water-level of impoundments. The proposed addition or restoration of flashboards to the top of a dam is considered a permanent alteration to the water-level of the associated impoundment. In addition to providing information on the height of the flashboards and the amount of land inundated by their addition, potential developers should discuss the potential impacts to the ecosystems associated with the impoundments including fish, waterfowl, shore-birds, other wildlife, and wetlands as well as any proposed mitigative measures.

If proposed hydropower projects will be affecting the impoundment water-levels on one or more occasions during the year, then potential developers should provide detailed descriptions of the expected frequency, magnitude and duration of these temporary fluctuations during a "normal", a "wet" and a "dry" hydrologic year. A discussion of any potential impacts to the aquatic ecosystem of the impoundment should be included as well as any proposed mitigative measures.

On the basis of the information provided and our fish and wildlife management objectives, the Division of Fish and Wildlife will evaluate the potential adverse impacts and recommend, whenever appropriate, additional information needs and/or mitigative measures for these impacts in the environmental report.

(b) Downstream Areas

The Division of Fish and Wildlife is concerned about any proposed temporary fluctuations in water-levels downstream of the generating facilities and/or permanent alterations to water-levels in sections of rivers or streams between the dams and the generating facilities.

(i) Downstream of Generating Facilities

For proposed projects which will not operate continuously in a "run-of-river" mode, potential developers should provide the following information:

- the maximum and minimum operational flows for the generating facilities (in cfs);
- the minimum proposed release from the generating facility (in cfs) and the estimated-spillage, releases and/or leakage via the dam (in cfs) during the non-generating mode;
- the expected frequency and duration of these low-flow conditions during a "normal", a "wet" and "dry" hydrologic year.

On the basis of this information and our fish and wildlife management objectives, the Division of Fish and Wildlife will assess the level of adverse impacts and recommend,

whenever appropriate, additional studies and/or mitigative measures for the affected downstream areas.

(11) Diversions

If proposed hydropower projects are considering the diversion of a section of the stream or river via penstocking, power canals or extended tailraces, then the Division of Fish and Wildlife requests that potential developers provide, regardless of proposed operational mode, the following information in their applications:

- the physical characteristics of the by-passed stream channel (e.g. length, width, gradient, and substrate types);
- the expected daily flow conditions (in cfs) in this section during a "normal," a "wet" and a "dry" hydrologic year including the existing and/or proposed leakage (in cfs) and/or the proposed minimum release flow (in cfs).

On the basis of this information and our fish and wildlife management objectives, the Division of Fish and Wildlife will assess the potential adverse environmental impacts to the aquatic community and recommend, whenever appropriate, additional studies and/or mitigative measures for the by-passed sections.

3. Fish Passage

The Division of Fish and Wildlife is concerned with the maintenance and enhancement of fish passage, upstream and/or downstream, at existing or proposed dams associated with proposed generating facilities. The Division of Fish and Wildlife proposes to work with applicants to identify fish passage requirements for both anadromous fish species (e.g. Pacific salmon, Atlantic salmon, steelhead trout, striped bass, American shad and other herring) and migratory resident fish species (e.g. walleye, brown trout and rainbow trout) at their proposed locations. The Division of Fish and Wildlife will reserve the right to determine passage requirements at a later date for those locations where this need has not been previously identified, as well as to recommend additional studies which may be needed to complete such determinations.

4. Water Quality

The Division of Fish and Wildlife is interested in the maintenance or enhancement of water quality adequate to sustain aquatic ecosystems, particularly fish communities, in the impoundments and downstream areas. The Division will rely initially on the Division of Water to make such assessments of potential impacts on water quality by proposed projects; however, the Division of Fish and Wildlife may require additional information from potential developers on certain water quality parameters, such as dissolved oxygen and water temperatures, in order to complete its determination of potential impacts and mitigative measures (whenever applicable) from a fish and wildlife standpoint.

5. Endangered and Threatened Species

Under the Federal Endangered Species Act (PL 93-205) and State Environmental Conservation Law (ECL Article 11, Title 5), the Division of Fish and Wildlife is responsible for endangered and threatened species of fish and wildlife in New York. As such, the Division of Fish and Wildlife is concerned about potential impacts to endangered and/or threatened species as a result of the construction and/or operation of hydropower facilities. The Division of Fish and Wildlife will provide potential developers with available information on the occurrences of endangered and/or threatened species in or adjacent to their proposed project areas and, subsequently, provide determinations and, whenever appropriate, recommend mitigative measures for potential adverse impacts.

6. Wetlands

Under the Environmental Conservation Law (ECL) Article 24, the Department of Environmental Conservation is responsible for preserving, protecting and conserving the integrity of wetlands which may be affected by the construction and/or operation of proposed hydropower facilities. As noted previously in the section on water-level fluctuations, potential developers will be responsible for identifying potential impacts to all existing wetlands, particularly from inundation and/or temporary water-level fluctuations, and for proposing mitigative measures. The Division of Fish and Wildlife will provide available wetland file information pertaining to the proposed project areas and other pertinent parts of the watershed for use in addressing the wetlands issues and concerns in the environmental report. However, it should be noted that these maps are not the official departmental Regulatory Maps and, therefore, should not be used in a determination of jurisdictional status. The Department of Environmental Conservation will be responsible for determining if an Article 24 permit will be required for construction involving wetlands and the conditions contained therein.

7. Significant Habitats

The Division of Fish and Wildlife is also concerned about potential impacts to fish and wildlife habitats which are of special interest or concern for reasons other than the presence of endangered species, e.g. - unusual concentrations or variety of wildlife, areas critical to particular species for breeding, wintering, or migration, etc. The Division of Fish and Wildlife maintains an inventory of significant fish and wildlife habitats throughout the state. Available information for significant habitats in or adjacent to the project areas will be provided to potential developers to assist with the preparation of the environmental reports for the applications. The Division of Fish and Wildlife will subsequently determine if the construction and/or operation of proposed hydropower projects could have potentially adverse impacts and recommend, whenever appropriate, additional studies and/or mitigative measures.

8. Recreational Access

Within proposed hydropower project areas, proposed developers are expected to provide and maintain public access and appurtenant facilities for fishing, hunting, trapping and/or other fish and wildlife uses (e.g. birdwatching), consistent with public safety, on the impoundments and/or down stream areas. In addition to the Division of Fish and Wildlife, any developer should also consult with the local governmental authorities, the State Office of Parks and Recreation and the U.S. Fish and Wildlife Service on their concerns for recreational access and associated facilities within the project areas. These requirements should be incorporated into a recreational access plan to be included in the environmental report along with proposed actions. Subsequently, the Division of Fish and Wildlife will comment on the adequacy of the proposed access from a fish and wildlife standpoint.

9. Construction Activities

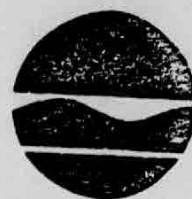
As previously noted in other sections, the Division of Fish and Wildlife is concerned about the potential impacts of construction activities associated with proposed hydropower developments. A potential developer should provide detailed information (including schedules) for proposed construction activities in the streambed, the dewatering of existing impoundments and/or downstream areas, proposed construction of transmission lines, and the proposed construction of any penstocking or power canals. In addition, any sediment scheduled for removal from behind an impoundment should be analyzed for the presence of toxic substances and heavy metals to ensure removal and disposal of contaminated sediments in an approved manner.

The Department of Environmental Conservation will be responsible for the issuance of an Article 15 permit for proposed construction work within most streambeds. The Division of Fish and Wildlife will review the proposed construction activities and, whenever appropriate, recommend mitigative measures for potential environmental impacts to be incorporated into the permit.

10. Summary

The Division of Fish and Wildlife has identified several generic fish and wildlife concerns with proposed hydropower development in New York. These concerns include water-level fluctuations or alterations, fish passage, endangered species, wetlands, significant habitats, recreational access and construction activities. Potential developers are encouraged to address each of these concerns, whenever appropriate, in the environmental reports of their federal applications for licenses or exemptions. It should be noted, however, that this summary of generic concerns does not preclude the Division of Fish and Wildlife from providing further comments and recommendations or identifying other environmental concerns at a later date.

JDS:MPS:jh
(1/26/82)



Robert F. Flacke
Commissioner

TENTATIVE¹ NEW YORK STATE SPECIES LIST

I. ENDANGERED

*Chittenango Ovate Amber Snail	<u>Succinea chittenangoensis</u>
*Karner Blue Butterfly	<u>Lycaeides melissa samuelis</u>
*Longjaw Cisco	<u>Coregonus alpenae</u>
*Blue Pike	<u>Stizostedion vitreum glaucum</u>
*Shortnose Sturgeon	<u>Acipenser brevirostrum</u>
Tiger Salamander	<u>Ambystoma tigrinum</u>
*Bog Turtle	<u>Glemmys muhlenbergi</u>
*Hawksbill Turtle	<u>Eretmochelys imbricata</u>
*Atlantic Ridley Turtle	<u>Lepidochelys kempii</u>
*Leatherback Turtle	<u>Dermochelys coriacea</u>
Massasauga Rattlesnake	<u>Sistrurus catenatus</u>
*Bald Eagle	<u>Haliaeetus leucocephalus</u>
Golden Eagle	<u>Aquila chrysaetos</u>
*Peregrine Falcon	<u>Falco peregrinus</u>
*Eskimo Curlew	<u>Numenius borealis</u>
Loggerhead Shrike	<u>Lanius ludovicianus</u>
Least Tern	<u>Sterna albifrons</u>
Roseate Tern	<u>Sterna dougallii</u>
*Indiana Bat	<u>Myotis sodalis</u>
*Blue Whale	<u>Balaenoptera musculus</u>
*Finback Whale	<u>Balaenoptera physalus</u>
*Sei Whale	<u>Balaenoptera borealis</u>
*Right Whale	<u>Eubalaena glacialis</u>
*Humpback Whale	<u>Megaptera novaeangliae</u>
*Sperm Whale	<u>Physeter catodon</u>
*Cougar	<u>Felis concolor</u>
Lynx	<u>Felis lynx</u>
*Gray Wolf	<u>Canis lupus</u>
Moose	<u>Alces alces</u>

II. THREATENED

Northern Cricket Frog	<u>Acris crepitans</u>
Mud Turtle	<u>Kinosternon subrubrum</u>
Blanding's Turtle	<u>Emydoidea blandingi</u>
Green Turtle	<u>Chelonia mydas</u>
Loggerhead Turtle	<u>Caretta caretta</u>
Timber Rattlesnake	<u>Crotalus horridus</u>
Red-shouldered Hawk	<u>Buteo lineatus</u>
Marsh Hawk	<u>Circus cyaneus</u>
*Osprey	<u>Pandion haliaetus</u>
Spruce Grouse	<u>Dendragapus canadensis</u>
Common Tern	<u>Sterna hirundo</u>
Eastern Woodrat	<u>Neotoma floridana</u>

TENTATIVE¹ NEW YORK STATE SPECIES LIST (cont.)

III. SPECIAL CONCERN -(Potentially threatened species)

Jefferson Salamander	<u>Ambystoma jeffersonianum</u>
Blue-spotted Salamander	<u>Ambystoma laterale</u>
Southern Leopard Frog	<u>Rana sphenoccephala</u>
Spotted Turtle	<u>Clemmys guttata</u>
E. Hognose Snake	<u>Heterodon platyrhinos</u>
Common Loon	<u>Gavia immer</u>
Double-crested Cormorant	<u>Phalacrocorax auritus</u>
Cooper's Hawk	<u>Accipiter cooperii</u>
Least Bittern	<u>Ixobrychus exilis</u>
Black Rail	<u>Laterallus jamaicensis</u>
Piping Plover	<u>Charadrius melodus</u>
Black Tern	<u>Chlidonias niger</u>
Barn Owl	<u>Tyto alba</u>
Short-eared Owl	<u>Asio flammeus</u>
Common Raven	<u>Corvus corax</u>
Grasshopper Sparrow	<u>Ammodramus savannarum</u>
Henslow's Sparrow	<u>Ammodramus henslowii</u>
Vesper Sparrow	<u>Poocetes gramineus</u>
Small-footed Bat	<u>Myotis leibii</u>

* Species currently on New York's existing Endangered Species List, ECL Section 11-0535.

¹ This is an unofficial listing of species which will be the subject of a public informational meeting to be held at DEC headquarters, 50 Wolf Road, Albany, New York on January 14, 1982 in Room 106 at 1:30 and 7:30.

A final official list will be promulgated by the Department on or around April 1, 1982.

NOTE: A tentative list of freshwater fish will be available at the January 14 public meeting, or may be obtained by writing directly to the Bureau of Fisheries, 50 Wolf Road, Albany, New York 12233.

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

FOR NPS USE ONLY

RECEIVED

DATE ENTERED

**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC

Historic District
~~Poesten Kill Gorge Conservation Area~~

AND/OR COMMON

2 LOCATION

STREET & NUMBER

Poesten Kill, Between Spring Avenue and / New York Route 2

CITY, TOWN

Troy

NOT FOR PUBLICATION

CONGRESSIONAL DISTRICT

29th

STATE

New York

VICINITY OF

CODE

36

COUNTY

Rensselaer

CODE

083

3 CLASSIFICATION

CATEGORY	OWNERSHIP	STATUS	PRESENT USE
<input checked="" type="checkbox"/> DISTRICT	<input type="checkbox"/> PUBLIC	<input checked="" type="checkbox"/> OCCUPIED	<input type="checkbox"/> AGRICULTURE
<input type="checkbox"/> BUILDING(S)	<input type="checkbox"/> PRIVATE	<input checked="" type="checkbox"/> UNOCCUPIED	<input checked="" type="checkbox"/> MUSEUM
<input type="checkbox"/> STRUCTURE	<input checked="" type="checkbox"/> BOTH	<input type="checkbox"/> WORK IN PROGRESS	<input checked="" type="checkbox"/> PARK
<input type="checkbox"/> SITE	PUBLIC ACQUISITION	ACCESSIBLE	<input type="checkbox"/> PRIVATE RESIDENCE
<input type="checkbox"/> OBJECT	<input type="checkbox"/> IN PROCESS	<input type="checkbox"/> YES, RESTRICTED	<input type="checkbox"/> RELIGIOUS
	<input type="checkbox"/> BEING CONSIDERED	<input checked="" type="checkbox"/> YES, UNRESTRICTED	<input type="checkbox"/> SCIENTIFIC
		<input type="checkbox"/> NO	<input type="checkbox"/> TRANSPORTATION
			<input type="checkbox"/> INDUSTRIAL
			<input type="checkbox"/> MILITARY
			<input type="checkbox"/> OTHER

4 OWNER OF PROPERTY

NAME

Multiple (see continuation sheet No. 1)

STREET & NUMBER

CITY, TOWN

VICINITY OF

STATE

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE,
REGISTRY OF DEEDS, ETC.

Rensselaer County Courthouse

STREET & NUMBER

Second Street

CITY, TOWN

Troy

STATE

New York

6 REPRESENTATION IN EXISTING SURVEYS

TITLE

Cultural Resources Survey (Phase I) - Poesten Kill Gorge

DATE

1976

FEDERAL STATE COUNTY LOCAL

DEPOSITORY FOR
SURVEY RECORDS

Planning Department, City Hall

CITY, TOWN

Troy

STATE

New York

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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**NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY -- NOMINATION FORM**

Poesten Kill Gorge Conservation Area, Troy, Rensselaer County, NY

CONTINUATION SHEET Owners ITEM NUMBER #4 PAGE 1

List of Property Owners: (All: Troy, N.Y. 12180 unless otherwise noted)

City of Troy, City Hall, 51 State Street
Mt. Ida Baptist Church, 560 Congress Street
Mr. Rudolph Schlegel, 183 Winter Street
Mr. John Foster, 552 Congress Street
Church of the Ascension, 550 Congress Street
Troy Spring Works, 520 Congress Street
Mr. Bernard McLaughlin, Hudson Drive
Ms. Theresa Bove, 17 Middle Road, North Greenbush, NY
Wultex Clothiers, Inc., 384 Congress Street
Ms. Magdalena Ruff, 250 Hill Street
Mr. Jerry Pitanill, 1304 Fifth Avenue
Russell Sage College, 45 Ferry Street
Mr. Robert Zeh, 19 Linden Avenue
Ms. Carmel Lamb, 11 Linden Avenue
Lor-Mic Enterprises, 30 Courtland Drive, Loudonville, NY 12211
Mr. Edward Radigan, 7 Linden Avenue
Ms. Virginia Anderson, 4 Linden Avenue
Mr. Robert Erniger, 4 Linden Avenue
Mr. Calvin Thayer, 3 Linden Avenue
Ms. Irene McGuire, R.D. #1, Averill Park, NY 12018
Ms. Gertrude Dufner, 1 Linden Avenue

DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
<input type="checkbox"/> EXCELLENT	<input type="checkbox"/> DETERIORATED	<input type="checkbox"/> UNALTERED	<input checked="" type="checkbox"/> ORIGINAL SITE
<input type="checkbox"/> GOOD	<input checked="" type="checkbox"/> RUINS	<input checked="" type="checkbox"/> ALTERED	<input type="checkbox"/> MOVED DATE _____
<input checked="" type="checkbox"/> FAIR	<input type="checkbox"/> UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Poesten Kill Gorge Conservation Area occupies an area of thirty-seven acres in southeast Troy. Situated along the steep banks of the Poesten Kill between Congress Street on the north and Linden Avenue on the south, the district encompasses extant structures, ruins, power sources, and archaeological sites associated with industrial development in this area from the seventeenth through the mid-twentieth centuries. Once a busy manufacturing area deriving its hydraulic power from the Poesten Kill and a man-made race and power canal system, the district has largely reverted to a natural state covered with brush and second-growth timber during the twentieth century.

Numerous archaeological sites within the district have been located by means of surface observation and documentary research.¹ Further research and testing will undoubtedly yield additional archaeological information concerning historical use of the Poesten Kill Gorge by manufacturing enterprises, though subsurface investigation has not yet been systematically attempted. Above-ground industrial remains within the district are presently subject to vandalism and removal of historical material. The City of Troy seeks to limit further damage through development of an historical park within the Poesten Kill Gorge Conservation Area, and the present district boundaries generally correspond to those of the proposed park.

List of Identified Historical Elements

Power System

Upper Mill Dam (1919): Built a short distance east of Pawling Avenue to control the flow of water to industries downstream, this stone and concrete dam replaced an earlier structure on the site built about 1850.

¹ A Phase I Cultural Resource Survey of the Poesten Kill Gorge was completed during the summer of 1976 under supervision of archaeologist Edward S. Rutsch. The Phase I documentation material is deposited with the Troy City Planning Board.

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CONTINUATION SHEET Description ITEM NUMBER #7 PAGE 2

Mt. Ida Dam, Falls, Sluice Gatehouse and Marshall Hydraulic Race (1840): The elements of this system diverted water from the Poesten Kill into a 600-foot conduit cut through native stone on the north bank. The race powered a series of mills and factories located below Mt. Ida Falls along Congress Street and the north bank of the Poesten Kill. The present dam dates from 1938.

Manning Hydroelectric Plant (1920-Ruins): An iron penstock carrying water from the Marshall race above powered a horizontal turbine and generator until the Manning Paper Company ceased operation in 1962. The hydroelectric plant has been extensively vandalized and lies in ruins.

Extant Structures, Congress Street

- Troy File Works (circa 1870): This two-story rectangular brick building fronting on Congress Street continues to be used for industrial purposes, with the Troy Spring Works its current occupant.

Kellog Machine Wire Mill (1850): Built as a factory for the production of curry combs and hardware, the Kellog works was largely demolished during the twentieth century. A small wing converted to commercial use and occupied by a sporting goods shop is the only extant portion of the original factory.

Mt. Ida Cotton Factory (1840): Built to utilize water power provided by the Marshall race tunnel, this rectangular three-story brick mill building is the largest and best preserved industrial structure within the district. A three-story west wing was added during the 1880's. The Mt. Ida Mill remains in use as a clothing factory, though it no longer uses the Marshall water power system.

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CONTINUATION SHEET Description ITEM NUMBER #7 PAGE 3

Ruins and Sites, North Bank, Poesten Kill

Manning and Howland Paper Mill (1846, with additions): The four-story mill was destroyed by fire in 1962. Visible remains include portions of exterior brick walls, two iron penstocks, two horizontal water turbines, and the hydroelectric plant ruins.

Tompkins Brothers Machine Works (1846): Originally a five-story, gable-roofed brick factory manufacturing knitting mill machinery, the Tompkins works lies in ruins overgrown with brush. The site is characterized by stone foundations, ruined brick walls, and scattered iron machine parts.

Griswold Wire Mill (1879): The last industrial structure built to utilize the Marshall water power system, the three-story brick mill stood on the north bank below the falls. The Griswold works, which encompassed earlier structures of the Stark and Edson Auger and Screw Factory (1840), was destroyed by a hurricane in 1938. Stone foundation walls and scattered stone grinding wheels denote the site.

Ruff Flour Mill: Built early in the nineteenth century, the Ruff mill remained in operation until the 1930's. Fire destroyed the structure in the 1960's, and its brick and stone rubble remain near the west end of the gorge.

Ruins and Sites, South Bank

Carter Planing Mill (1832): Located near Spring Avenue, the Carter factory produced millwork and wooden products until about 1900. Only ruined foundations presently remain at the overgrown site.

Steam Plant, Marshall Infirmary (late nineteenth century): Cellar holes and coal ash dumps remain as evidence of the structure which supplied heat to the Marshall Infirmary, located south of Linden Avenue.

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Tenement House (mid-nineteenth century): A bank of three dwelling units once stood in "Hoboken Hollow" north of Linden Avenue. Surface sampling techniques have located privies, chimney and door lintel sites, and kitchen garden plots.²

List of Intrusions

A one-story brick warehouse built during the twentieth century is the only intrusion within the district. The warehouse stands at the extreme southwest end of the historic district apart from the historic elements.

² Edward S. Rutsch, "Letter Report, 1976 Poesten Kill Survey,"³ (Typescript copy on deposit, Troy City Planning Board, Troy, N.Y.)

8 SIGNIFICANCE

PERIOD	AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW			
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION
<input type="checkbox"/> 1400-1499	<input checked="" type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input checked="" type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input type="checkbox"/> TRANSPORTATION
<input type="checkbox"/> 1900-	<input type="checkbox"/> COMMUNICATIONS	<input checked="" type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)
		<input type="checkbox"/> INVENTION		

SPECIFIC DATES	Various	BUILDER/ARCHITECT	Various
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STATEMENT OF SIGNIFICANCE

The Poesten Kill Gorge Conservation Area encompasses resources whose archeological, industrial and engineering significance contribute to an understanding of Troy's historical development from the late seventeenth to mid-twentieth centuries. Entrepreneurs attracted by the power potential of the site established a series of mill industries along the gorge which contributed to the economic growth of Troy. A seat of diverse local industry throughout the nineteenth century, the Poesten Kill Gorge reverted to a natural state following a series of fires and floods which have reduced the mills to ruins. Despite this destruction, the area retains its historical integrity as an important industrial site, and its archaeological potential is being systematically explored.

The Poesten Kill derived its name from a Dutch word meaning "foaming water," and the first such reference to the stream appears in a deed of 1689. An earlier land patent of 1667 granted to Theunissen Van Velsen by Governor Richard Nicolls refers to a mill near the west end of the gorge.¹ Following the founding of Troy in 1789, a number of water-powered mills were built in response to the needs of the new community. By 1830, grist mills, saw mills, a paper mill, and a cotton mill were in operation along the north bank of the Poesten Kill, and a power canal had been built to supply water to these industries.²

The greatest impetus to intensive industrial development of the Poesten Kill Gorge came in 1840, when entrepreneur Benjamin Marshall built a hydraulic power system to utilize the tremendous head of water at Mt. Ida Falls. The Marshall race, a tunnel through 600 feet of solid rock, ultimately

¹A.J. Weise, Troy's One Hundred Years, 1789-1889 (Troy, 1891), 11-17.

²Weise, 31, 34.

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Poesten Kill Goerge Conservation Area, Troy, Rensselaer County, NY

CONTINUATION SHEET Significance ITEM NUMBER #8 PAGE 2

provided power to his Mt. Ida Cotton Factory (1840), as well as to a series of mills which purchased rights to the water supply. By 1879, the Manning and Howland Paper Mill, Tompkins Machine Works, Kellog Wire Works, Troy File Works, and the Griswold Wire Mill comprised a diverse cluster of industries all drawing power from this common source. Though much of the district now lies in ruins, the remains constitute a significant illustration of nineteenth-century industrial organization and hydraulic engineering skill.

The importance of the Poesten Kill industries to Troy's economy declined sharply after a hurricane destroyed the dams and numerous mills in 1938. The last water-powered industry in the gorge, the Manning Paper Mill, was destroyed by fire in 1962. The City of Troy has begun systematic archaeological study of the Poesten Kill Gorge, and an interpretive historical park is being developed to protect extant remains and sites.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

See continuation sheet No. 1.

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 37 acres

UTM REFERENCES

See continuation sheet No. 1.

A	ZONE	EASTING	NORTHING	B	ZONE	EASTING	NORTHING
C	ZONE	EASTING	NORTHING	D	ZONE	EASTING	NORTHING

VERBAL BOUNDARY DESCRIPTION

See continuation sheet No. 1.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE

Raymond W. Smith, Historic Preservation Program Assistant

ORGANIZATION NYS Parks and Recreation

DATE

Historic Preservation Field Services

April, 1977

STREET & NUMBER

Empire State Plaza, Agency Bldg. #1

TELEPHONE

518-474-0479

CITY OR TOWN

Albany

STATE

New York 12238

12 STATE HISTORIC PRESERVATION OFFICER CERTIFICATION

THE EVALUATED SIGNIFICANCE OF THIS PROPERTY WITHIN THE STATE IS:

NATIONAL

STATE

LOCAL XXX

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

TITLE Deputy Commissioner for Historic Preservation

DATE

9/26/77

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC PRESERVATION

ATTEST:

DATE

KEEPER OF THE NATIONAL REGISTER

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CONTINUATION SHEET Bibliography ITEM NUMBER #9 PAGE 1

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CONTINUATION SHEET Boundary ITEM NUMBER #10 PAGE 1

From a point 50 feet east of the dam spanning the Poesten Kill immediately north of Mount Ida Cemetery, the district boundary runs west along the north bank of the Poesten Kill for approximately 1200 feet to the dam above Mount Ida Falls. From this point the boundary proceeds in a northwesterly direction for 300 feet to the center of Congress Street (N.Y. Route 2). The boundary continues northwest along the center of Congress Street to a point opposite its intersection with 15th Street (N.Y. Route 7). From this point the boundary proceeds southwest in a straight line for approximately 1850 feet to the point where it jogs west to intersect Spring Avenue. Proceeding southeast on Spring Avenue for 400 feet, the district boundary turns northeast to parallel the Poesten Kill for 400 feet, then jogs southeast to intersect Linden Avenue. The district boundary continues northeast along the center of Linden Avenue for approximately 1350 linear feet, then jogs north 150 feet. From this point, the boundary runs parallel to the south bank of the Poesten Kill and 50 feet south of the center of the stream until it intersects Pawling Avenue. From this point of intersection the boundary continues along the north property line of Mount Ida Cemetery, extending 850 feet to a point opposite the origin, where the district boundary crosses the Poesten Kill, returning to the initial point.

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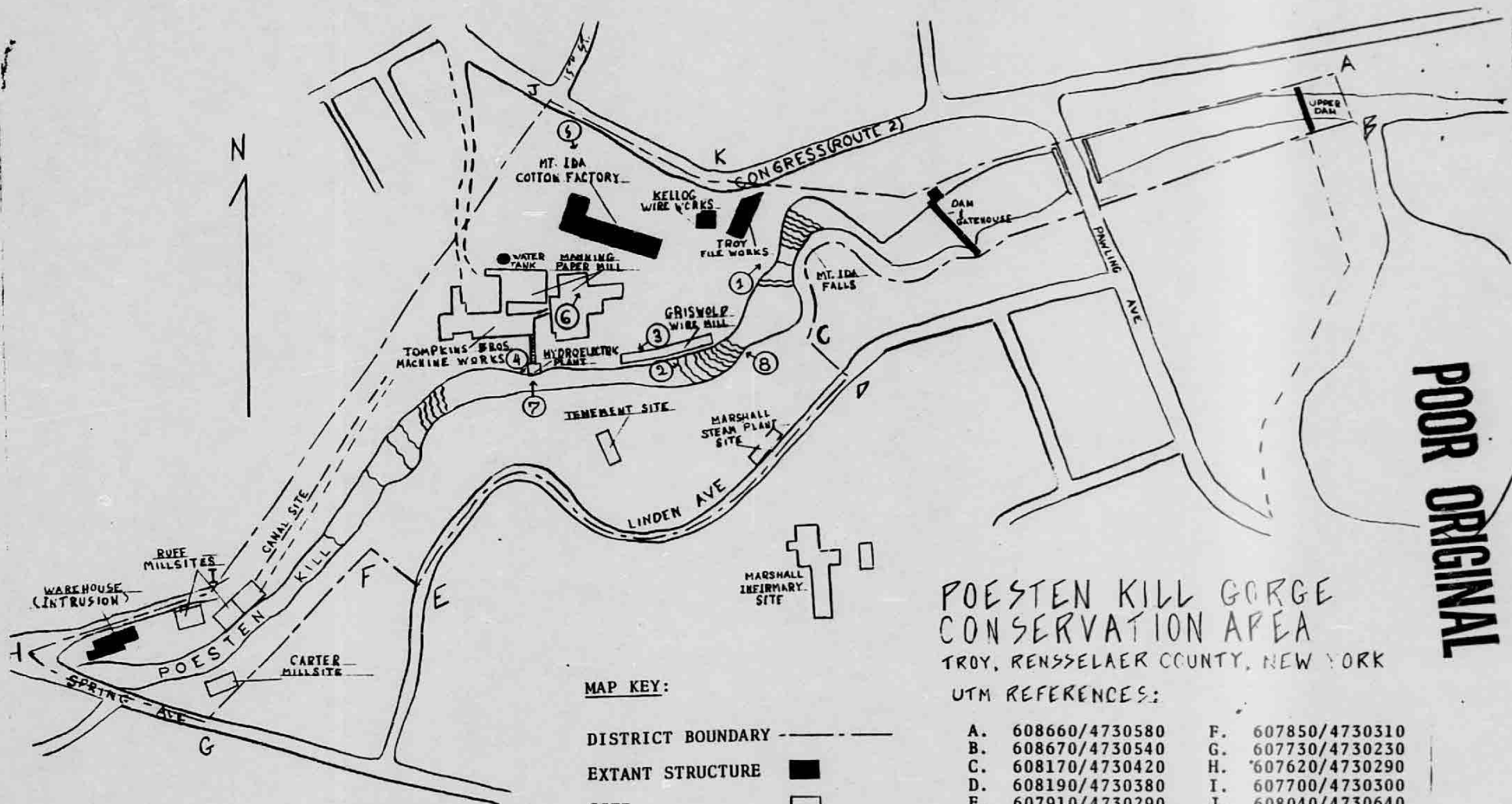
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CONTINUATION SHEET UTM ITEM NUMBER #10 PAGE 1

- A. 608660 / 4730580
- B. 608670 / 4730540
- C. 608170 / 4730420
- D. 608190 / 4730380
- E. 607910 / 4730290
- F. 607850 / 4730310
- G. 607730 / 4730230
- H. 607620 / 4730290
- I. 607700 / 4730300
- J. 608040 / 4730640
- K. 608200 / 4730570



POOR ORIGINAL

POESTEN KILL GORGE
CONSERVATION AREA
TROY, RENSSELAER COUNTY, NEW YORK

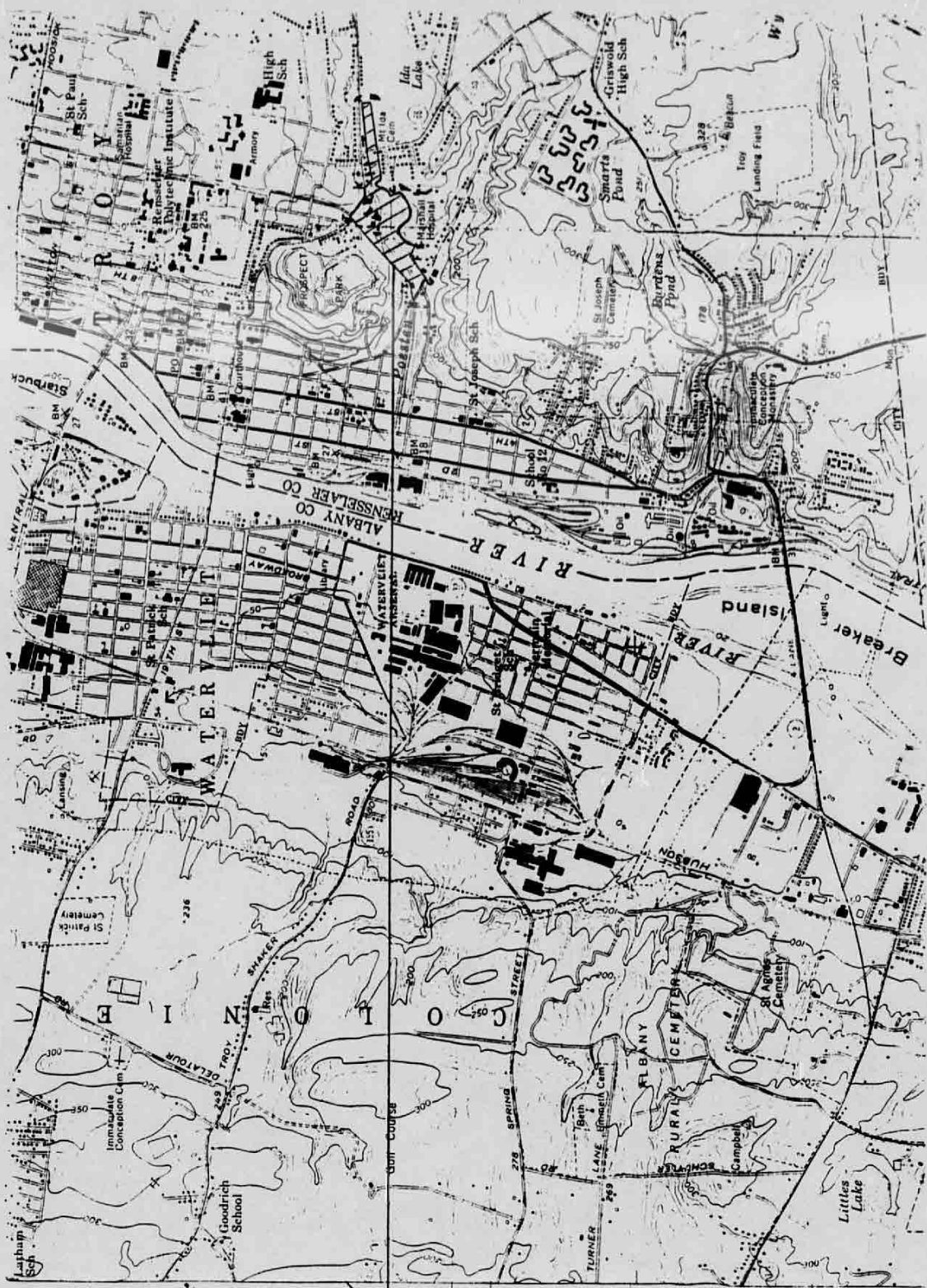
MAP KEY:

- DISTRICT BOUNDARY
- EXTANT STRUCTURE
- SITE
- PHOTO KEY 1

UTM REFERENCES:

A. 608660/4730580	F. 607850/4730310
B. 608670/4730540	G. 607730/4730230
C. 608170/4730420	H. 607620/4730290
D. 608190/4730380	I. 607700/4730300
E. 607910/4730290	J. 608040/4730640
	K. 608200/4730570

R. SMITH, 1977



Troy South Blvd

POSTED KILL GARAGE
CONSERVATION AREA,
TROY, RENSSELAER COUNTY,
NEW YORK

- 18/ A. 608660/4730180
- B. 608670/4730140
- C. 608170/4730120
- D. 608190/4730380
- E. 607910/4730290
- F. 607850/4730310
- G. 607730/4730230
- H. 607620/4730294230"
- I. 607400/4730300
- J. 608040/4730640
- K. 608200/4730570

POOR ORIGINAL