

Former Hydraulics Laboratory Demolition

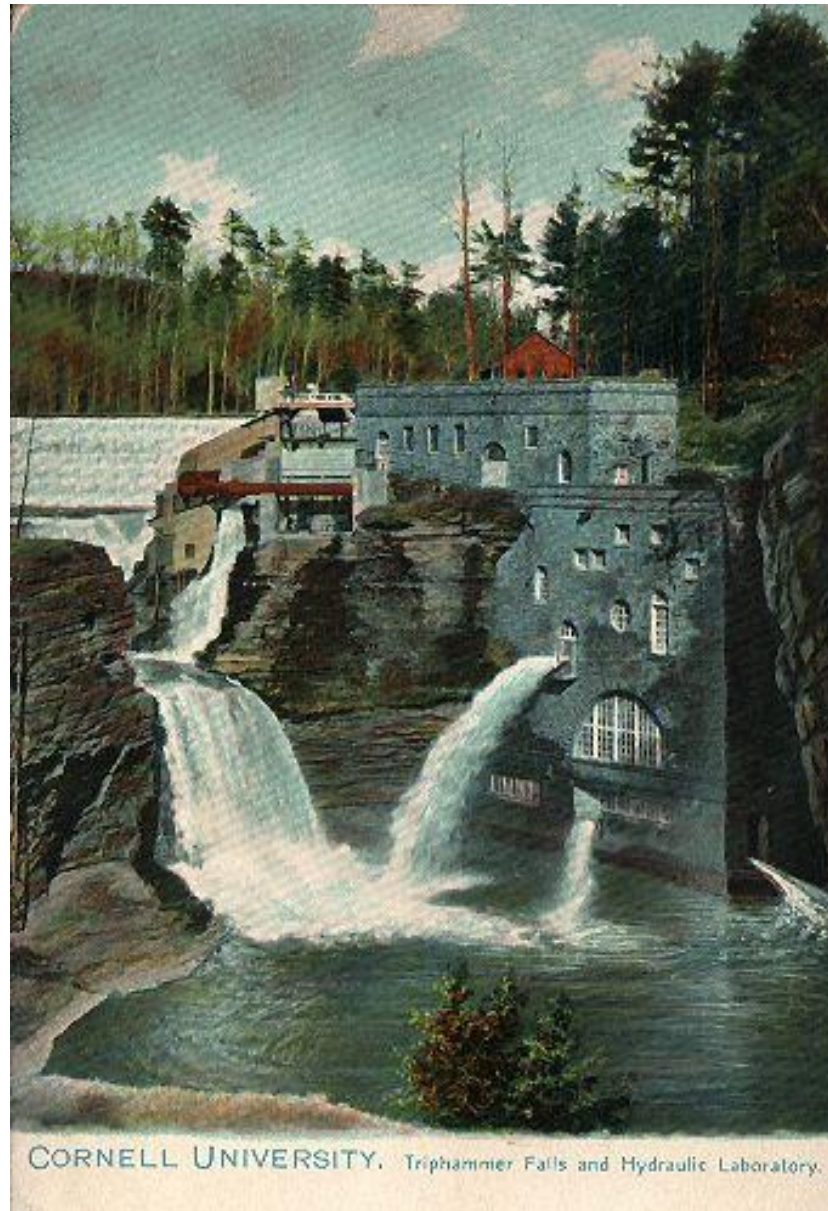


**Campus Planning Committee
December 16, 2009**



Cornell University
Facilities Services

Former Hydraulics Lab Demolition





Significance:

A. One of Cornell's most photographed vignettes

1. Painting in the Cornell Club lobby, photos, postcards, enigmatic, romantic, sublime, poetic
2. Part of Cornell since 1898.
3. Dramatic intersection between nature and man
4. Richard Meier project in 1988

B. Historic hydraulic research conducted

1. Study of flow over dams w/ the US Dept. of Deep Waterways
2. A study of the accuracy of rod floats to determine the flow in canals
3. The loss of head due to friction in pipes

C. Largest hydraulics laboratory in the Nation





History

1898	Weir and piping constructed
1902	Stone housing built
1914	Turbine improvements
1960	Facility expanded
1970	Facility condemned
1988	Richard Meier Visitor Center Project
2008	Fall Creek Gorge Management Plan
2009	Partial collapse
2009	City directs Cornell to demolish lab by 2/2010



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1988 Richard Meier Project

- Welcome Center
- Alumni Affairs
- Admissions





Mitigation Measures

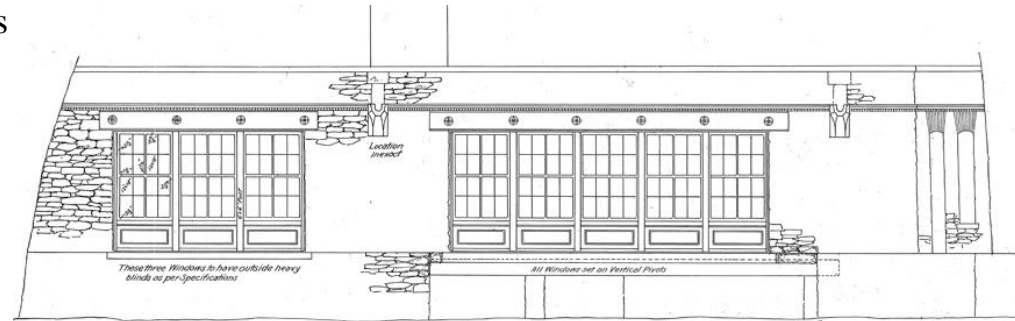
Section 106 National Historic Preservation Act as guidance

A. Documentation meeting HABS standards:

1. Drawings
2. Large format photographs
3. Narrative report

B. Standard

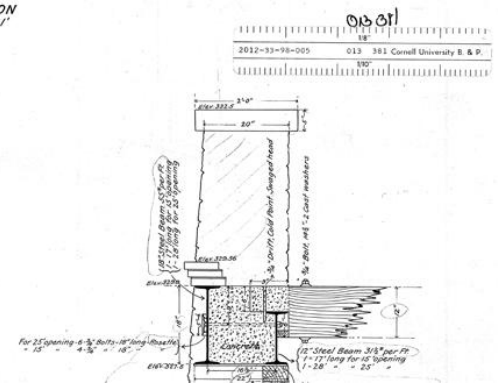
1. What is significant?
2. Accurate drawings with clearly set limitations
3. Durable, reproducible media
4. Clear & concise



ELEVATION
Scale 1/4"=1'



END ELEVATION





Former Hydraulics Lab Demolition



*Only a portion of the upper section
(reconstructed in 1961) remains.*

*Debris on lower shelf and large
diameter pipe is all the remains
of former multi-story structure.*



**Former Hydraulics Lab as
photographed after 2009 collapse**



Local & campus press featured articles on the collapse

INDEPENDENT SINCE 1880

The Cornell Daily Sun

Vol. 125, No. 108 ■ ITHACA, NEW YORK TUESDAY, MARCH 10, 2009 ■ 20 Pages - Free

C.U. Proposes Hydraulics Lab Clean-Up

Univ. considers \$1 mil. plan to fully demolish structure, remove debris

By NIKHITA PARANDEKAR
Sun Staff Writer

Over the past 111 years, the old Hydraulics Lab in Fall Creek has become a landmark at Cornell, akin to the clock tower, Morrill, McGraw and White halls. The lab's collapse two weeks ago was not only met with surprise from freshmen on their daily walks past the gorge, but also confusion from the administration, which was not aware of the collapse and had no protocol in place to deal with it. University officials are now considering a proposal to clean up the debris from the lab's demise.

"The University is looking at a propos-

al to clean up some of it and dismantle the rest," said Simeon Moss '73, director of Cornell Press Relations. "It's just a proposal at this point and would have to go through municipal approval."

The proposal was prepared by Steve Beyers, service team leader for the Office of Environmental Compliance and Sustainability within the Division of Risk Management and Public Safety, according to a statement issued by Moss. The plan includes demolishing the remaining structure, removing current debris and restoring the area to a more natural state.

"We thought that what was left on the wall of the cliff could pose a danger and [it] certainly is an eyesore, so we talked

around with different departments and decided to put together a proposal to have it removed," Beyers said.

The current debris includes stone, iron and steel that need to be cleaned up; so far the University has notified the appropriate governmental agencies to minimize possible impacts to the community and environment. Moreover, the structure that is still left hanging violates building codes. There have already been numerous proposals throughout the years to demolish the lab and return the gorge to its natural state.

"I was sad to see it go because it was

See **CLEAN-UP** page 6



BETH SPERGEL / SUN SENIOR PHOTOGRAPHER

Vanishing act | The remains of the old Hydraulics Lab, which collapsed into Fall Creek Gorge last month.

Students Lament W. Campus Housing Discrepancies

Police Find Body of Missing Ithaca Man in Fall Creek

The Ithaca Police Department on Sunday recovered a body located in the



COURTESY OF
GOOGLE MAPS



Purpose and Need:

- Ruins with gaping hole to gorge and rusty pipe with ladder create liability
- Environmental contaminants must be removed and properly disposed; safe removal requires specialized large equipment.
- City has ordered demolition
- Scarred remains of building are aesthetic liability



Excerpt from Order to Demolish (Dec 4, 2009):

...I am hereby declaring that the Hydraulics Laboratory... is unsafe...[and] ordering that the Hydraulics Laboratory be demolished... no later than February 2, 2010.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Niechwiadowicz".

For the Building Department

Michael Niechwiadowicz, Deputy Building Commissioner



Preparatory Work Complete via initial PAR:

- **Site Assessment**

- Reviewed historical records/planned work scope
- Negotiated requirements with regulators (NYSDEC, USACE, NYSDOL), local officials, & campus stakeholders
- Conducted geotechnical investigation (site stability)

- **Scope of Work and Cost Estimate**

- Prepared preliminary construction documents
- Obtained cost estimate from qualified contractor
- Modified bid documents as appropriate to minimize future bid price



Work Included in this PAR:

Pre-demolition

- Finalize permitting (NYSDEC, USACE, NYSDOL, City)
- Complete geotechnical investigation (rock stability)
- Finalize bid package

Demolition

- Prepare site/mobilize/temp close footbridge
- Demolish & remove all elements to grade
- Recover debris from bottom of gorge
- Stabilize and secure area for future development

Full site restoration & improvements are NOT included



PAR Budget :

- **Previous PAR:\$55,000** (authorized and substantially complete)
- **Current PAR: \$980,000**, including:
 - \$750,000 for demolition contractor
 - \$130,000 for permitting and regulatory coordination, final design, contract prep, waste disposal doc, & construction mgmt
 - \$100,000 contingency
- **Part of Capital Plan (\$1.2M budgeted)**



Project Schedule :

- **Finalize planning and design, Jan 2010**
- **Bidding and contracting, Feb 2010**
- **Demolition and restoration (approx 8 weeks),
March – April 2010**

Cornell has appealed the City's Order To Demolish, which required demolition by February 2, and requested an additional 90 days.



Future Opportunities

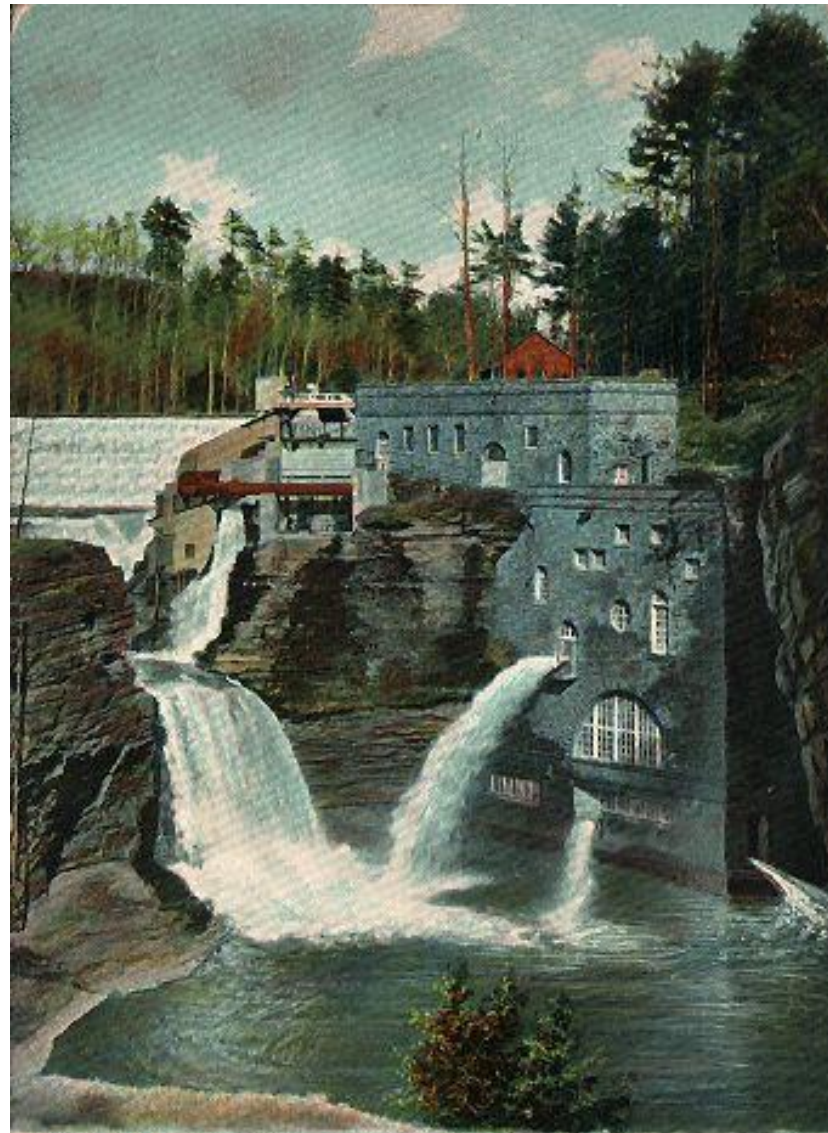
- Fall Creek Gorge Management Plan
 - Gorge Overlook
 - Interpretive signage for both cultural and natural history





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CORNELL UNIVERSITY. Triphammer Falls and Hydraulic Laboratory.