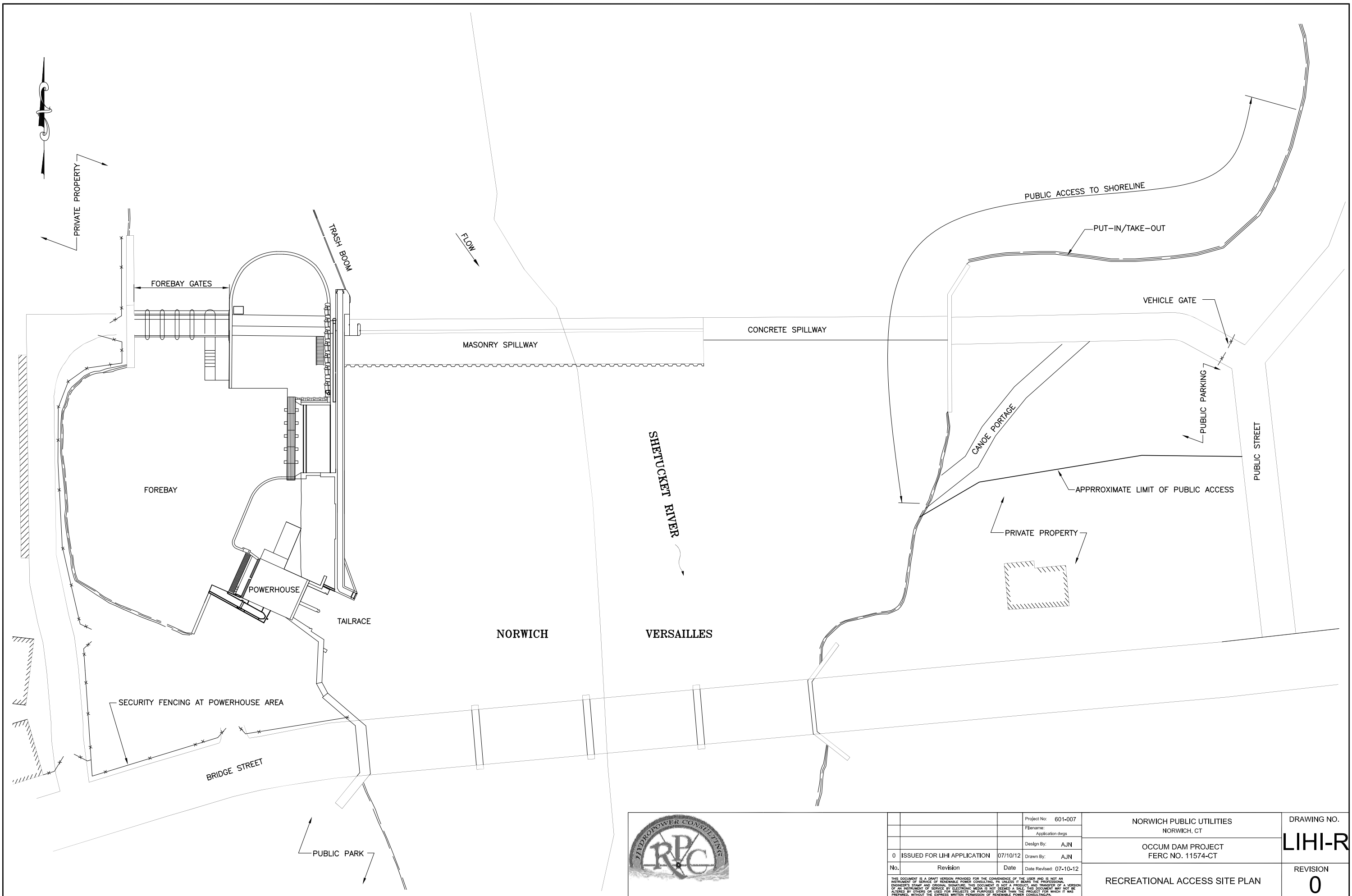


OCCUM PROJECT

LIHI APPLICATION

ATTACHMENT G

OCCUM RECREATION



		Project No: 601-007	NORWICH PUBLIC UTILITIES NORWICH, CT	DRAWING NO.
		Filename: Application dwgs		LIHI-R
		Design By: AJN	OCCUM DAM PROJECT FERC NO. 11574-CT	REVISION
0	ISSUED FOR LIHI APPLICATION	07/10/12		0
No.	Revision	Date	Date Revised: 07-10-12	
			RECREATIONAL ACCESS SITE PLAN	

THIS DOCUMENT IS A DRAFT VERSION PROVIDED FOR THE CONVENIENCE OF THE USER AND IS NOT AN INSTRUMENT OF SERVICE OF RENEWABLE POWER CONSULTING, P.A. UNLESS IT BEARS THE PROFESSIONAL ENGINEER'S SEAL AND ORIGINAL SIGNATURE. THIS DOCUMENT IS NOT A PRODUCT, AND TRANSFER OF A VERSION OF AN INSTRUMENT OF SERVICE BY ELECTRONIC MEDIA IS NOT DEEMED A SALE. THIS DOCUMENT MAY NOT BE ALIENED BY OTHERS OR USED FOR PROJECTS OR PURPOSES OTHER THAN THE PROJECT FOR WHICH IT WAS PREPARED, WITHOUT THE EXPRESS WRITTEN PERMISSION OF RENEWABLE POWER CONSULTING, P.A.

© 2009 RENEWABLE POWER CONSULTING, P.A.

Licensed Hydropower Development
 Recreation Report

Schedule 2. Inventory of Recreational Resources

16. Enter data for each Recreational Resource Type (a). For Facility Capacity (f), of total available resources (b) + (c), compare the average total amount of weekend use (during the recreation season reported on Schedule 1, Item 13) with the total combined capacity of these resources to handle such use and enter a percentage that indicates their overall level of use. Do not consider peak weekend use (see Glossary). For example, if all available Boat Ramps are used to half capacity during non-peak weekend days, enter 50%. For all available Boat Ramps that are used beyond their combined capacity, enter the appropriate percentage above 100.

Recreational Resource Type (a)	No. of Available Resources			Total Miles/Acres (e)	Facility Capacity (percent) (f)
	User Free (b)	User Fee (c)	No. FERC Approved Resources (d)		
Access Areas. (No Facilities). Unimproved but well-known/popular sites which can be used to reach development/project waters (including waters below a dam) without trespassing on other property. Such areas can be used for launching boats, fishing, swimming, or other water recreational purposes.	1		1	N/A	10.00
Boat Launch Areas. Improved areas having one or more boat launching lanes and (a) are usually marked with signs, (b) have compacted gravel or concrete surfaces, and (c) usually have adjacent parking lots.				N/A	
Boat Launch Lanes. The number of lanes are determined by the total number of boats that can be launched easily at the designated boat launch areas at one time.				N/A	
Marinas. Public and Private facilities on or adjacent to the development/project waters for the docking, fueling, repair and storage of boats, and which may rent boats and equipment, or sell bait or food.				Acres	
White Water Boating. Access areas below a dam that can be used for rafting/kayaking.				N/A	
Canoe Portages. Site located above and below a dam, diversion, or other obstruction where persons can launch and take out canoes; and the improved, designated, and maintained trails connecting such sites.	1		1	Miles 0.04	2.00
Tailwater Fishing Facilities, Platforms, walkways, or similar structures to facilitate below-dam fishing.				N/A	
Fishing Piers. Structures which are installed and maintained in development/project waters specifically for fishing. This code excludes tailwater fishing facilities.				N/A	
Parks. Designated areas which usually contain multiple use facilities (e.g., picnic sites, playgrounds, swimming beaches, and boat ramps). Individual facilities within each park should be reported under the appropriate resource type (e.g. playground areas, picnic areas, etc.)				Acres	
Playground Areas. Have playground equipment, game courts/fields, jogging tracks, etc.				Acres	
Trails. Improved pathways used for non-automobile recreational travel which (a) can be located on a reference map, and (b) are designated according to type of use (hiking, bridle, trail bikes, snow mobiles, cross-country skiing). This category excludes canoe portages.				Miles	
Swimming Areas. Sites providing access to development/project waters where swimming facilities (bath houses, designated swim areas, parking, and sanitation facilities) are available.				Acres	
Picnic Areas. Areas designated and maintained for picnicking and which contain one or more picnic sites, each of which includes a picnic table and in some cases cooking grills, trash receptacles, and a parking area.				Acres	
Wildlife Areas. Natural areas and reserves specifically created and managed for the protection and propagation of wildlife and the viewing of wildlife in their natural habitat.				Acres	
Visitor Centers. Facilities located in a kiosk, pavilion or similar structure from which persons may obtain information about the development/project, its operation, recreational facilities, and related items of interest.				N/A	
Interpretive Displays. Facilities (exhibits and museums) which describe or explain archaeological, historic, or prehistoric objects, structures, sites, areas, activities, artifacts, and materials.				N/A	
Overlooks. Public areas to view natural areas/project features (e.g., pull-offs or vistas).				Acres	
Hunting Areas. Public or private areas open to the general public for hunting.				Acres	
Golf Courses. All types of golf areas, except miniature golf.				Acres	
Cottage/Cabin Sites. Recreational dwellings which are seasonally rented by the public for recreational purposes.				N/A	
Camping Areas/(Campgrounds). Areas containing two or more campsites, tent sites, or trailer/recreational vehicle (RV) sites which accommodate overnight camping. This category does not include group camps.				Acres	
Tent/Trailer/RV Sites. The total number of sites within Camping Areas that have been specifically developed for tent, trailer, or RV use. This category does not include sites within group camps.				Acres	
Organizational Camps. Camping areas that are maintained and operated by a specific entity but which may be used by other persons or groups (scout camps, military base recreation camps, church camps, handicapped children camps).				Acres	
Group Camps. Camping areas which are equipped with facilities to accommodate use by the general public. These areas usually require registration or advance reservation.				Acres	
Winter Sports. Any facility or site providing sports like skiing, sledding, ice skating, or ice fishing.				N/A	
Other - such as informal/dispersed camping areas, unimproved trails, etc. (specify):				N/A	

Licensed Hydropower Development
Recreation Report

Glossary of FERC Form 80 Terms

Available Resources. Quantifies the availability of natural or man-made property or facilities for given recreational resource type. This includes all recreational resources available to the public within the development/project boundary. The resources are broken into the following categories:

User Free (Schedule 2, column b) - Those resources within the development/project that are free to the public;

User Fee (Schedule 2, column c) - Those resources within the development/project where the licensee/facility operator charges a fee;

FERC Approved Resources (Schedule 2, column d) - Those resources within the development/project that are FERC approved. This includes specific recreation amenities, facilities, or sites required by the Commission in the license or license amendment document, including an approved recreation plan or report. This number does not necessarily have to equal the sum of user free and user fee resources.

Development. The portion of a project which includes:

- (a) a reservoir; or
- (b) a generating station and its specifically-related waterways.

Exemption from Filing. Exemption from the filing of this form granted upon Commission approval of an application by a licensee pursuant to the provisions of 18 CFR 8.11(c).

General Public. Those persons who do not have special privileges to use the shoreline for recreational purposes, such as waterfront property ownership, water-privileged community rights, or renters with such privileges.

Licensee. Any person, state, or municipality licensed under the provisions of Section 4 of the Federal Power Act, and any assignee or successor in interest. For the purposes of this form, the terms licensee, owner, and respondent are interchangeable *except where*:

- (a) the *owner* or licensee is a subsidiary of a parent company which has been or is required to file this form;
- or
- (b) there is more than one owner or licensee, of whom only one is responsible for filing this form. Enter the name of the entity that is responsible for filing this report in Schedule 1, Item 2.1.

Peak Use Weekend. Weekends when recreational use is at its peak for the season (July 4th weekend and other holiday weekends). On these weekends, recreational use may exceed the capacity of the area to handle such use.

Major License. A license for a project of more than 2,000 horsepower (1.5 megawatts) installed capacity.

Minor License. A license for a project of 2,000 horsepower (1.5 megawatts) or less installed capacity.

Recreation Day. Each visit by a person to a development (as defined above) for recreational purposes during any portion of a 24-hour period.

Revenues. Income generated from recreation facilities at project development. Includes fees for access or use of area.

ENVIRONMENTAL INSPECTION REPORT
(ELECTRONICALLY SUBMITTED)
FEDERAL ENERGY REGULATORY COMMISSION

New York Region

Date of Inspection – May 11, 2005

Name _____ Occum _____ Project No. 11574-CT

Licensee City of Norwich – Dept. of Public Utilities License Type Minor

License Issued September 29, 1999 License Expires August 31, 2039

Location _____ Shetucket River _____ None
(Waterway) (Reservation)

_____ New London _____ Connecticut
(County) (State)

Inspector _____ Joseph Enrico

Licensee Representatives _____ Mr. Roy Borque, Senior Watch Engineer

Other Participants _____ None

Summary of Findings

The licensee is currently installing upstream and downstream fish passage facilities at the project which were completed in July, 2005. The construction area was fenced for security and public safety. There were no environmental issues at the construction area with sufficient safeguards for soil erosion and runoff control. The recreation area was open for access and all public safety measures were in place. There were no follow-up actions as a result of this inspection.

Submitted _____ August 31, 2005

Joseph G. Enrico
Environmental Protection Specialist

A. INSPECTION FINDINGS

Requirements*	Date of Requirement	Follow-up Needed	Photo Nos.
CULTURAL RESOURCES			
Article 408 requires the Licensee to implement the Programmatic Agreement on Cultural Resources. CMP filed on August 30, 2001. C-185	O: 9-29-99 Ap: 8-30-01	N	
FISH AND WILDLIFE RESOURCES			
Article 401 requires the Licensee to limit drawdowns of the impoundment to 2 feet below crest or top of flashboards. C-188	O: 9-29-99	N	
Article 402 requires the Licensee to release a minimum flow of 30 cfs into the bypass reach from leakage or spillage and 100 cfs when the downstream fish passage facility becomes operational. C-089.	O: 9-29-99	N	
Article 403 requires the Licensee to file a project operation monitoring plan for impoundment fluctuations and minimum flows. Filed 3-29-2000 & 12-18-2000. C-211	O: 9-29-99 Ap: 3-2-01	N	
Article 404 requires the Licensee to submit an erosion control plan prior to any future ground breaking activities at the project. Filed 9-29-00, 12-18-00 & 6-7-04 C-120	O: 9-29-99 Ap: 3-23-01 Ap: 8-3-04	N	
Article 405 requires the Licensee to file a final plan for the installation, monitoring and operation of an upstream fish passage. Filed 9-29-00, 12-18-00 & 6-7-04 C-026	O: 9-29-99 Ap: 8-3-04	N	1-3
Article 406 requires the Licensee to file a final plan for the installation, operation and monitoring of downstream fish passage facilities. Filed 9-29-00, 12-18-00 & 6-7-04. C-026.	O: 9-29-99 Ap: 3-23-01 Ap: 8-3-04	N	4-6
Article 407 reserves authority to the Commission to prescribe the installation of fish passage facilities. C-072	O: 9-29-99	N	
PUBLIC SAFETY			
Facilities and measures to assure public safety (18 CFR, Part 12). Plan submitted on April 13, 1994. C-111	O: 9-29-99 Ap: 11-1-94	N	7

Requirements*	Date of Requirement	Follow-up Needed	Photo Nos.
RECREATION RESOURCES			
Article 409 requires the Licensee to file a canoe portage plan. Filed 9-29-2000. NYRO letter dated August 31, 2001 confirming receipt and acceptance of as-builts. C-113	O: 9-29-99 Ap: 11-8-00	N	8
Recreation signing and posting (18 CFR, Part 8) C-118	O: 9-29-99	N	8
Standard Article 13 requires the Licensee to allow public free access to project waters and adjacent lands C-118	O: 9-29-99	N	
Submission of the Commission's Form 80 monitoring report C-112.	18CFR: Filed 4-1-03	N	
OTHER ENVIRONMENTAL RESOURCES			
Article 410 allows the Licensee to grant conveyances for non project use of project lands and waters, for certain actions without prior Commission approval. C-202	O: 9-29-99	N	

O=Order **C**=OEP-IT Code **18CFR**=Title 18 Code of Federal Regulations, **Ap**=Approved

Comments and Follow-Up Action

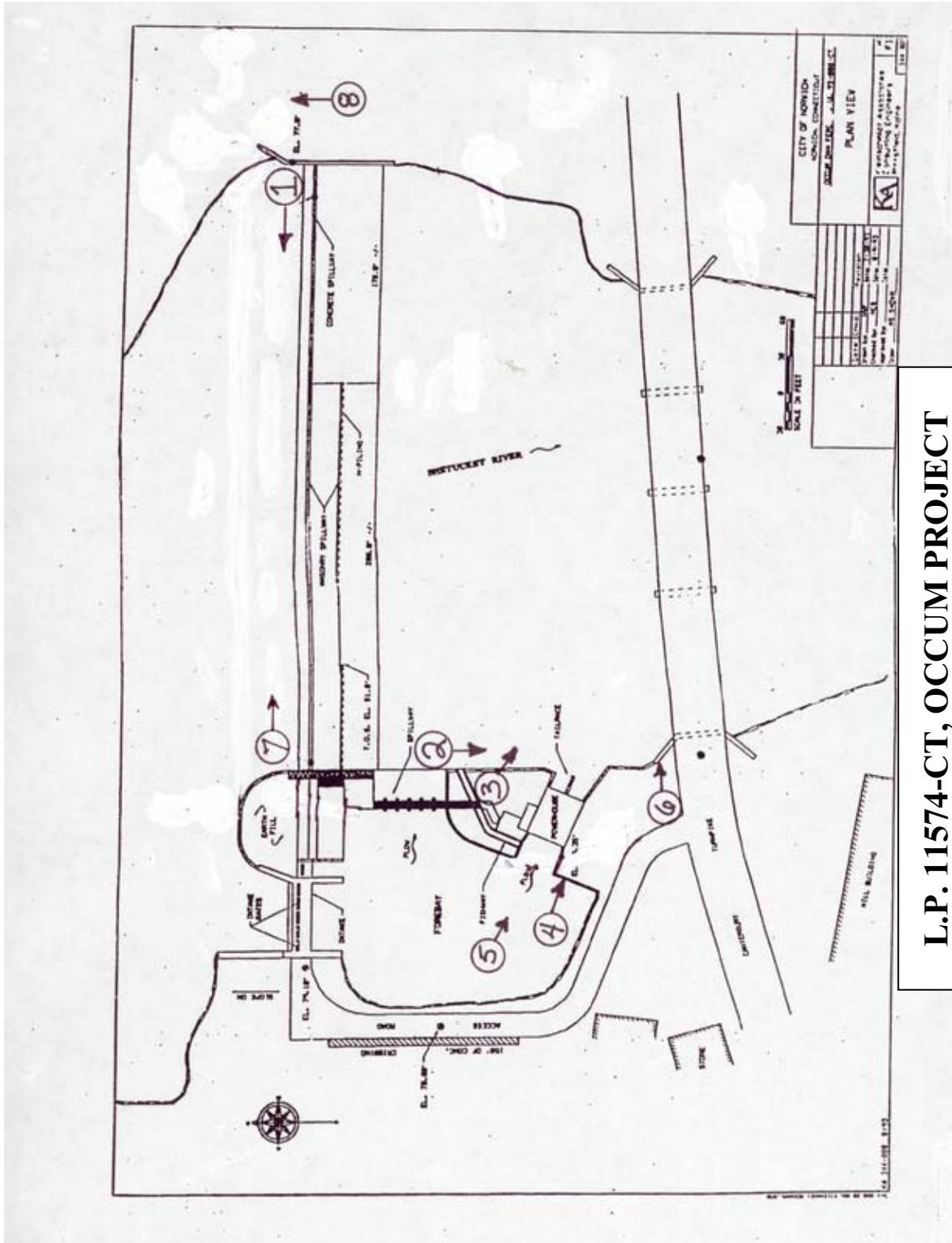
(1) **Fish Passage Facilities**: The Licensee requested and received an extension of time for facility installation so that the upstream and downstream facilities could be done at the same time for a significant cost savings. The facilities were near completion at the time of inspection.

(2) **Recreational Facilities**: The canoe portage and access facility was available for public use during construction as it is located on the opposite side of the river from the powerhouse/intake area.

B. EXHIBITS AND PHOTOGRAPHS

The following are provided to show the location of the project and to illustrate project features: Eight photographs and photo location map.

Cc: DHAC
Enrico, J./di



L.P. 11574-CT, OCCUM PROJECT
PHOTOGRAPH LOCATION MAP



Photo No.1 - View of powerhouse and fish passage construction area from across the river.



Photo No.2 - View of nearly completed concrete fish ladder looking downstream.



Photo No.3 - View of discharge of construction area leakage. No discernible turbidity was noted.



Photo No.4 - View of downstream passage facility nearing completion.



Photo No.5 - View of dewatered forebay area. Note downstream passage facility to right of trashracks.



Photo No.6 - Discharge pipe for downstream fish passage, prior to installation.



Photo No.7 - Upstream warning sign and staff gage on left dam abutment.



Photo No.8 - Recreation area on opposite side of river with Part 8 sign. The canoe portage takeout is located to the right.



**Norwich
Public Utilities**

TRUSTED FOR GENERATIONS

April 10, 2002

Mr. Anton Sidoti
Regional Director
Federal Energy Regulatory Commission
New York Regional Office
19W 34th Street Suite 400
New York, NY 10001

Reference: Occum Dam Canoe Portage
Sprague, CT
FERC No. 11574

Dear Mr. Sidoti,

The purpose of this letter is to provide final notification that the Occum Dam Canoe Portage project has been completed. As discussed in my previous letter, dated December 19, 2001, we have performed an inspection and there was no significant erosion or damage to the portage path or surrounding areas since the installation last year. Upon completion of seeding and silt fence removal later this month, the project will be complete.

If you have any questions or comments, please feel free to contact me at (860) 823-4119.

Mark D. Greene
Utility Engineer

cc: C. Berger - Director, CT DEP Inland Water Resources Division
P. Cipriani - Chairman, Sprague Inland Wetlands & Conservation Commission
C. LaRose - Operations Integrity Manager, Norwich Public Utilities
L. Sullivan - P.E., CLA Engineers

FERC - NYRO
RECEIVED

APR 15 2002

NEW YORK, NY

020524-0385-3

UNITED STATES OF AMERICA⁹³ FERC ¶ 62,096
FEDERAL ENERGY REGULATORY COMMISSION

City of Norwich, Department of

Project No.
11574-003

Public Utilities

ORDER APPROVING CANOE PORTAGE PLAN UNDER ARTICLE 409

(Issued November 08, 2000)

On September 29, 2000, the City of Norwich, Department of Public Utilities (Norwich or licensee), licensee for the Occum Project (FERC No. 11574), filed a plan for installing a canoe portage pursuant to article 409 of the project license.¹ The project is located on the Shetucket River in New London County, Connecticut.

BACKGROUND

License article 409 requires the licensee, within one year of the date of issuance of the project license, to file with the Commission for approval a final plan for providing a canoe portage around the project dam. According to the article, the plan must include: (1) a schedule for construction and operation of the portage; (2) a description of how the needs of the disabled were considered in designing the portage facilities; (3) a final site plan for the portage; and (4) a description of directional signage to be installed for the portage. Also, article 409 states that the final plan must include erosion control measures as required under license article 404.

Article 409 requires the licensee to prepare the plan after consultation with the U.S. Fish and Wildlife Service (FWS), the Connecticut Department of Environmental Protection (CDEP), and the State Historic Preservation Officer (SHPO). The licensee must include with the plan documentation of consultation, copies of agency comments and recommendations on the completed plan, and specific descriptions of how the agencies' comments are accommodated by the plan. The licensee must give the consulted agencies a minimum of 30 days to comment and make recommendations before filing the plan with the Commission. If the licensee does not adopt a recommendation, the filing must include the licensee's reasons, based on project-specific information.

¹ See 88 FERC ¶ 62,299 (issued September 29, 1999).

DESCRIPTION OF PLAN

Norwich proposes to improve the existing informal canoe portage around the project dam along the east shore between a point immediately upstream of the project's boat restraint barrier (about 75 feet upstream of the dam) and a point about 150 feet downstream of the dam (about 100 feet upstream of Bridge Street). From the canoe take-out site, the portage trail would cross an existing graveled and vegetated area to the access drive for the dam. After crossing the access drive, the trail would traverse the downstream side of the access drive embankment, with a portion of the path running in a parallel alignment with the embankment. The canoe put-in site would be protected with riprap to prevent bank erosion during dam discharges to the tailwater.

Existing vegetation would be cleared a minimum width of four feet along the trail route, and the minimum four-foot-wide trail would be surfaced with gravel. Directional signage would be placed at both ends of the pathway and near its intersection with the dam access drive.

Norwich contacted the Connecticut Department of Parks and Recreation regarding the applicability of federal Americans with Disabilities Act (ADA) guidelines for the portage. The licensee also reviewed accessibility guidelines from other sources, including state criteria, guidelines from the National Center on Accessibility, and the Final Report of the Regulatory Negotiation Committee on Accessibility Guidelines for Outdoor Developed Areas. Consistent with these guidelines, the proposed portage path's gradient would be limited to 12 percent where feasible, and would not exceed 18 percent at any point. The licensee states that using a flatter gradient than proposed would result in the portage trail extending onto properties not owned by Norwich.

Appendix A of the filing contains a detailed description of the measures that would be taken to control soil erosion and stream sediment during various phases of portage installation. Construction activities covered in the description include site preparation; excavation and backfill; borrow, stockpile, and disposal of unsuitable materials; landscape planting; sign installation; and inspection and maintenance. Temporary control measures would include silt fences, dikes, hay bale berms, and mulching. Permanent measures would include revegetating, graveling, and riprapping of all disturbed ground areas.

Appendix B of the filing consists of two site plan drawings for the portage. One of the drawings shows the proposed general arrangement of the portage in relation to existing project features; the other contains a detailed layout plan for the portage facilities, a typical cross section of the portage trail, and design specifications for the portage signs.

The licensee states that the portage facilities would be completed no later than the first full construction season following Commission approval of the plan.

CONSULTATION

A draft of the portage plan was submitted to the FWS, the CDEP, and the SHPO on September 7, 2000. In an e-mail dated September 15, 2000, the FWS informed the licensee it had no comments on the proposed portage. By letter dated September 25, 2000, the CDEP states that the proposed portage facility is adequate and will improve the ability of recreational boaters to move through the project area. In a letter dated September 8, 2000, the SHPO states that the proposed portage would have no effect on any properties listed or eligible for listing on the National Register of Historic Places.

DISCUSSION

According to the licensee, the project impoundment and tailwaters currently receive light boating pressure, with some canoe traffic occurring on the river. The licensee's plan for enhancing the project's existing informal canoe portage will achieve the purpose of providing a safe and clearly marked passage around the dam for canoeists.

Based on our review of the filing, we find that all the requirements of license article 409 have been adequately met. We also find the proposed implementation schedule for the plan to be reasonable. The proposed canoe portage plan should be approved.

The Director orders:

(A) The canoe portage plan filed on September 29, 2000 by the City of Norwich, Department of Public Utilities for the Occum Project (FERC No. 11574), as required by license article 409, is approved and made a part of the project license.

(B) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days from the date of this order pursuant to 18 CFR § 385.713.

John E. Estep
Division of Hydropower
Administration and Compliance