

# CHIEFTAIN MOTOR INN RIVERBANK EROSION STABILIZATION



The primary concerns initiating the project were to retard ongoing erosion along the riverbank and to provide a stable pedestrian access to the river for patrons.

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# CHIEFTAIN MOTOR INN RIVERBANK EROSION STABILIZATION

## CLIENT

R.F.I., Inc.  
PO Box 180  
361 Height of Land Road  
Grafton, NH 03240  
(603) 643-2550  
Contact: Joseph Roberts

## LOCATION

Chieftain Motor Inn  
Hanover, New Hampshire

## THE CHALLENGE

The Inn intended to use the lower field areas for scheduled gatherings and for river access for patrons at the motor inn.

The owner wanted to create a perched beach area for Inn guests and visitor. The perched beach area incorporated sand/beach area, low slope lawn area, canoe storage area, handicap access ramp to boat services, and landscape plantings/garden. CLD initially did a feasibility study to determine options for addressing the riverbank stabilization. After initial review of the options with NHDES Wetland Bureau, the design approach was finalized.

- Survey Services
- NHDES Wetland Permitting
- Local Zoning Permitting
- Construction Documents



## CLD Consulting Engineers, Inc.

NH	540 Commercial Street Manchester, NH 03101	(603) 668-8223	www.cldengineers.com cld@cldengineers.com
ME	Park Place Corporate Center 316 US Route 1, Suite D York, ME 03909	(207) 363-0669	
VT	16 Hemlock Ridge Drive Suite 103 The Village of Wilder White River Junction, VT 05001	(802) 698-0370	

## THE RESULTS

Design plans were developed by CLD and applications were filed for the NHDES Wetland's Bureau Permit and a variance to construct within the shoreline and wetland setback with the Town of Hanover. Extensive research was completed by CLD in order to develop the erosion control plan and design to stabilize 400 linear feet of eroding riverbank. The Conservation Commission reviewed CLD's proposed plans for shoreland stabilization and indicated that the design was "a well thought-out plan and an excellent example of what they would like to see on all projects."

The proposed measures had no effect on flood levels because the construction treatment was instituted behind the existing toe of slope lines. The project actually increased river flood storage capacities to a small degree. The proposed riverbank stabilization project reduced sedimentation and turbidity below the bank, and ultimately, below the project area. Vegetative treatments provide a buffer along the river, improve habitat for wildlife, and provide additional slope protection. The creation of this perched beach area also focused pedestrian access to the river through a controlled area. This helped prevent traffic damage along the balance of the project area and provided relief to habitat disturbance throughout these same areas.