

RIVER BEND

CAREER & TECHNICAL CENTER

Heavy Equipment

Grant

Application

December 14, 2018

Heavy Equipment Operations
Grant Request Budget

Three (3) Modular Simulator Platforms – motion (SIM4MSPM)

Latest simulator platform with modular capabilities (swappable controls). Includes simulator platform, seat, computer, blank pedals covers, and 17" touch screen.

\$27,307 each

\$81,921 total

Three (3) Three-monitor Display Frame for Modular Simulator Platform (SIM4DSP3)

Mounting frame for three monitors. Rotates for portrait or landscape orientations. Used with the modular simulator platform. Includes additional computer to run multiple monitors. TVs not included.

\$8,853 each

\$26,559 total

Two (2) Modular Control Set – Motor Grader, Fingertip Controls (SIM4MGRF)

John Deere motor grader fingertip controls. Used with the modular simulator platform. Includes software. Does not include steering wheel column.

\$11,853 each

\$23,706 total

Two (2) Modular Control Set – Excavator (SIM4EXCA)

John Deere excavator controls. Used with the modular simulator platform. Includes software.

\$8,741 each

\$17,482 total

One (1) Modular Control Set – Crawler Dozer (SIM4CRD)

John Deere crawler dozer controls. Used with the modular simulator platform. Includes software.

\$10,684 each

\$10,684 total

Two (2) Universal Steering Wheel Column (SIM4STW)

Utilized by the motor grader, backhoe, and 4WD loader simulators and includes FNR lever.

\$4,798 each
\$9,596 total

Two (2) Enclosed Shipping Crate (SIM4CRT)
Reusable crate that allows the simulator to be quickly stored and shipped.

\$2,070 each
\$4,140 total

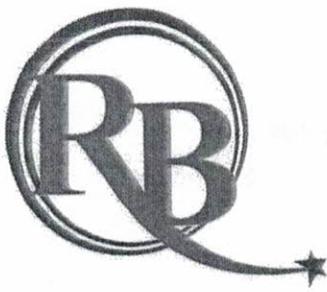
Nine (9) TV monitors
Three monitors per simulator for three-display simulation

\$333.33 each
\$3,000 total

One (1) Used Grader
Estimated cost based on current local market research

\$100,000 each
\$100,000 total

Total Grant Request: \$277,088



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36 Oxbow Drive
Bradford, VT 05033
802-222-5212
Fax: 802-222-4621
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November 16, 2018

Adult Education - Heavy Equipment Operations Program

With the growing need of construction and highway workforce development, River Bend Career & Technical Center will host an Adult Education Heavy Equipment Operations training program. River Bend offers the largest daytime secondary Heavy Equipment Operations training program in Vermont, and this is an opportunity to expand on a the resources and expertise of a successful program already in operation.

This training is designed so that all career and technical centers in Vermont have access to enroll adult students. The initial goal of this program is to establish itself by expanding on River Bend's daytime secondary program with plans to expand the program to other appropriate sites around the state in subsequent years.

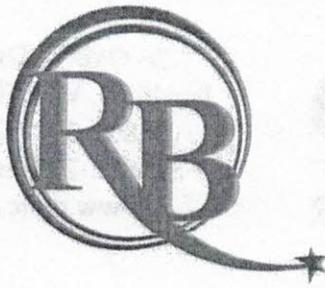
The program will teach the safe operation of heavy equipment machinery: **Grader, Excavator, Loader, Backhoe, Dump Truck, Skid-Steer, Bulldozer, and Compaction Roller**

Highlights of the Heavy Equipment Operations Program

Students will be using equipment simulators and have hands-on seat time operating heavy equipment.

1st Module: 40 hours - Grader and Excavator Operations

- Identifies and describes the common types, uses, and components of excavators. Safety guidelines, prestart inspection procedures, and preventive maintenance requirements are presented. Basic startup and operation are described, and common work activities associated with excavators are covered.
- Identifies and describes the common uses and types of motor graders. Safety guidelines, prestart inspection procedures, and preventive maintenance requirements are presented. Basic startup and operation are



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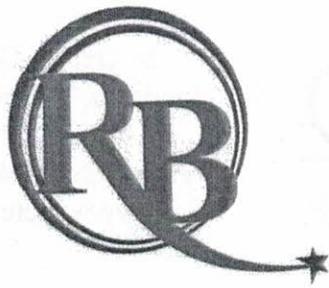
described, and common work activities associated with motor graders are covered.

2nd Module: 40 hours - Loader, Backhoe, and Bulldozer Operations

- Covers the uses of wheel and track loaders, as well as operator maintenance, loader safety, and operating procedures. Includes procedures for using loaders in excavation, grading, and demolition work.
- Identifies and describes the common uses, types, components, instruments, controls, and attachments of backhoes. Safety guidelines, prestart inspection procedures, and preventive maintenance requirements are presented. Basic startup and operation are described, and common work activities associated with backhoes are covered.
- Identifies and describes the common uses, types, and components of dozers. Presents safety guidelines, prestart inspection procedures, and preventative maintenance requirements. Describes basic startup and operation and covers common work activities associated with dozers.

3rd Module: 40 hours - Skid Steers, Compaction Equipment, and Dump Truck

- Describes the many uses of skid steers and the attachments available for these machines. Covers safety practices, as well as inspection, startup, shutdown, and operation of skid steers.
- Provides training on common types of compaction equipment, the primary instruments, controls, and attachments of a roller. It covers safety guidelines associated with compaction equipment, pre-start inspections, preventative maintenance, and operating procedures. Factors involved in work activities associated with a roller be covered.
- Covers uses, inspection, startup, shutdown, operator maintenance, and operation of dump trucks used to carry loads on public highways. Includes operation of dump trucks in normal and emergency situations.



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4th Module: 20 hours - Advanced application process on multiple machines

Additional topics covered in the program:

- OSHA-10 Construction/Heavy Equipment Safety- Most workers in construction, building development, and other related fields will need to take hazard recognition training. This will ensure that workers are able to identify, predict, and prevent potential hazards in the workplace. Workers who successfully complete OSHA-10 training will earn their OSHA Education Center 10-Hour Card.
- Work-Zone Safety/Flagger Training- This course fulfills the requirement to be designated as a flagger on Vermont jobsites. The actual flagger duties will be covered as well as an understanding of the work zone set up and traffic control devices.
- Training follows NCCER guidelines and NCCER certificates are available upon completion.

Tuition:

Note: Modules 1, 2 and 3 must be also done with Module 4.

Modules 1 & 4 = \$2,900.00

Modules 2 & 4 = \$2,900.00

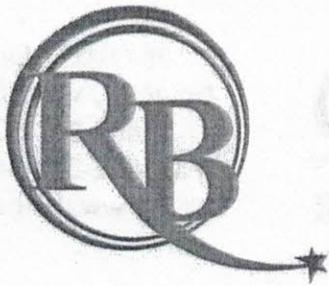
Modules 3 & 4 = \$2,900.00

Modules 1 & 2 & 4 = \$4,500.00

Modules 2 & 3 & 4 = \$4,500.00

Modules 1 & 3 & 4 = \$4,500.00

Modules 1 & 2 & 3 & 4 = \$5,500.00



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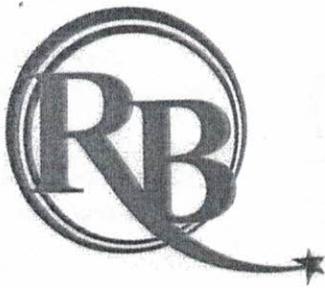
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- Minimum class number: 6
- Maximum class number: 10
- Brochure with Vermont Adult Career & Technical Education Association logo advertised throughout the state
- Combination of two modules for every student enrolled: sending technical center receives \$500.00 for administrative overhead
- Combination of three modules or more for every student enrolled: sending technical center receives \$750.00 for administrative overhead
- Establish program at River Bend and then expand to Middlebury at the Hannaford Career Center (western corridor of state) in year two
- Expand to North Country Career Center in year three
- Expand to southern technical centers in subsequent years
- Design Advanced Certificate (possibly with Vermont State Colleges)
- Courses could be rotated at different technical centers around Vermont

Possible Courses Part of Advanced Certificate:

Preventative Maintenance: This course presents the development and administration of preventive maintenance programs. Topics include PM schedules; types of services; record-keeping; out-of-service vehicles; winterizing; coolants and additives; oil and lubricants; analysis and additives; contamination control; and track maintenance.

Hydraulics and Drainage: This course introduces the fundamental concepts of fluids and the applications of flow mechanics in civil and environmental engineering projects. Topics include open channel flow, precipitation, storm water run-off, infiltration, groundwater, watershed drainage systems, measuring devices, buoyancy, and steady flow. Calculations and lab work involve the use of



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precipitation data; culvert and storm water system design; flume and hydraulic bench experiments; and the use of current industry standard computer programs.

Mechanics of Soil: This course covers the basic principles and applications of soil mechanics used in design and construction and introduces soil and its formation, actions, and uses. Included are studies of index properties; soil classification; exploration and sampling; compaction; soil strength; erosion control; foundations; and retaining walls. Problems relating to these items are presented and solved. Lab testing is done in conjunction with lecture to give a more complete understanding of the material. Each student is required to prepare an individual technical report of each test performed.

Engineering Materials: In this course, the student examines the materials used in the design and construction of civil engineering projects including soil, aggregates, cements, concrete, timber, asphalt, steel, masonry, and special topics (glass or geotextiles). Sources, manufacture, transport, standard tests, best use, and environmental considerations are covered. Lab work involves testing of materials and technical reporting.

Introduction to Grant Writing: This introductory workshop is geared toward the novice who has limited or no exposure to the world of grant writing. The basics of the grant writing process are covered while allowing for questions, answers and examples.

State & Municipal Procedures and Laws Pertaining to Roads: (to be developed)

State and Municipal Highway Budgeting: (to be developed)

Current Heavy Equipment Advisory Committee



Dennis Ford (N.H. D.O.T.)	Enfield N.H. 03748
Cary Wetherbee (Retired N.H. D.O.T.)	Rumney N.H.
Stuart Close (Private Construction Blaktop)	West Lebanon N.H.
Greg Smith (Vt. D.O.T.)	Thetford Vt.
Brian Piper (Private Construction Contractor)	Fairlee Vt.
Dustin Huntington (Former Student Truck Driver)	Newbury Vt.
Mike Champion (Private Equipment Sales and Service Nor-Trax)	Bradford Vt./Springfield Vt.
Ben Toomy (Former Student Grader Operator N.H. D.O.T)	Haverhill N.H.
Philip Page (Bradford Highway Forman)	Bradford Vt.
Bob Beaulieu (Newbury Highway Forman)	Newbury Vt.

Note: For the Adult Education portion members will be added from around the state. We recommend 2-3 Adult Education Coordinators from around the State as well as private construction, municipal and state highway members from other parts of the state.

A handwritten signature is located in the bottom right area of the page. The signature is written in dark ink and appears to be a stylized name, possibly "D. Ford".



Town of Lyndon

P.O. Box 167
Lyndonville, VT 05851
(802) 626-5834 Office • (802) 626-1265 Fax

Justin M. Smith
Municipal Administrator
justin@lyndonvt.org

November 13, 2018

Dear Vermont Adult Career and Technical Education Association:

I write in support of the River Bend Career and Technical Center's Heavy Equipment Operation program application for the Department of Labor's Equipment Grant.

As I write this letter our Town is currently seeking to fill a Highway Crew Position here in Lyndon, VT at the worst possible time to be short on quality help. Our town has seen a decline in the number of qualified applicants for our town crew and public works positions, we are lucky if we receive 3-4 applications when we are trying to hire for our town highway crew. An affordable, local program that provides quality training on equipment such as graders, excavators, loaders, and dozers would create the kind of applicants we would consider for employment.

Please join me in giving your support to this important program.

Sincerely,

Justin M. Smith
Municipal Administrator
Town of Lyndon

November 9, 2018

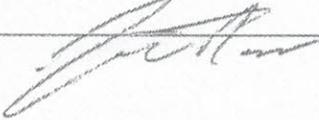
Dear Vermont Adult Career and Technical Education Association,

I am writing to support the River Bend Career and Technical Center's Heavy Equipment Operation program application for the Vermont Department of Labor Equipment Grant.

There is a significant lack in the number of qualified applicants for heavy equipment operator positions. The existing operators at Pike Industries ask for qualified applicants to work with. The need for heavy equipment operators is seen by management.

An affordable, local program that provides quality training on equipment such as graders, excavators, loaders, and dozers would create the kind of applicants we would consider for employment. Our industry is dependent on heavy equipment, but even more dependent on the equipment operator. Operators with quality training will have a competitive edge when being considered for employment.

Sincerely,



John T. Naessens

Quarry Supervisor

Pike Industries Lebanon Crushed Stone

Blaktop, Inc.

We Pave the Way

P.O. Box 5243 • West Lebanon, NH • Phone: (603) 298-8885 • Fax: (603) 298-6120

November 16, 2018

Dear Vermont Adult Career and Technical Education Association:

I write in support of the River Bend Career and Technical Center's Heavy Equipment Operation program application for the Vermont Department of Labor Equipment Grant.

Blaktop, Inc. and our sister company, Twin State Sand & Gravel Co. combined own approximately thirty pieces of heavy equipment. We are located in West Lebanon, NH and Hartland, VT. In recent years we have seen a decline in the number of qualified applicants for our heavy equipment operator positions. We believe there is a great need for an affordable, local program that provides quality training on equipment such as graders, excavators, loaders, and dozers. Such a program would create the kind of applicants we desperately need and would consider for employment.

Please join me in giving your support to this important program.

Sincerely,

Stuart T. Close, President
Blaktop, Inc.

Town of Brattleboro
DEPARTMENT OF PUBLIC WORKS

211 Fairground Road, Brattleboro, Vermont 05301
Tel: 802-254-4255 • Fax: 802-257-2316 • E-mail: brattdpw@sover.net

November 29, 2018

Drew McDowell
Assistant Director
Adult Education Director
Windham Regional Career Center
80 Atwood Street
Brattleboro, Vermont 05301

Re: Letter of support for Heavy Equipment Operation Program

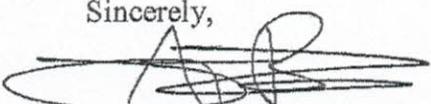
The Brattleboro Department of Public Works Department supports the development of the Adult Education - Heavy Equipment Operation Training program offered and supported by River Bend Career & Technical Center and Windham Regional Career Center.

Many of the employees of the Brattleboro Public Works work force will be retiring in the next few years and there will be a large demand for new skilled workers to operate our fleet of heavy equipment. We employ over 30 employees within the Highway & Utilities Division who would all benefit from an equipment training program. Employers throughout Windham County will be seeking qualified skilled employees to operate Graders, Excavators, Loaders, Backhoes, Dump Trucks, Rollers and other specialized equipment used in the municipal & private sector.

The Brattleboro Public Works Department will utilize the training program and collaborate and work in consultation with you agency's to identify site locations for training in southern Vermont.

We support the future expansion of your programs to include municipalities & business in Windham County and throughout the state.

Sincerely,



Stephen Barrett, Director
Department of Public Works
211 Fairground Road
Brattleboro, Vermont 05301
Sbarrett@brattleboro.org



Drew McDowell
Adult Education Coordinator
Windham Regional Career Center
80 Atwood St.
Brattleboro, VT 05301

The Brattleboro Development Credit Corporation (BDCC) is in full support of the development of a Heavy Equipment Operation Training program to be offered at the Windham Regional Career Center and River Bend Career & Technical Center.

Access to a qualified workforce continues to be one of the greatest limiting factors to economic growth in the Windham Region, and as such is a priority of the BDCC. Centralized and publicly-accessible trainings, including the Heavy Equipment Operation Training Program proposed by the Windham Regional Career Center, provides invaluable workforce education opportunities for both high-school and adult students to enter high-wage, high-need careers.

The Brattleboro Development Credit Corporation commits to supporting the program by driving awareness of its offerings to the job-seeking public, as well as to employers looking to develop impactful workforce and education pipelines that meet their hiring needs.

Sincerely,

Alex Beck

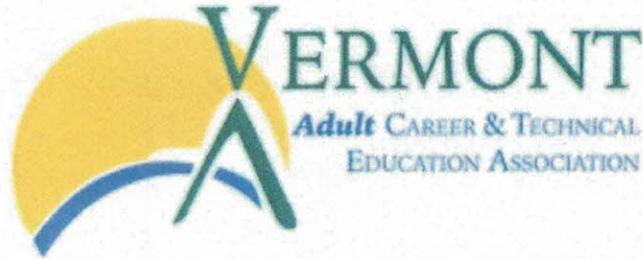
A handwritten signature in black ink, appearing to read "Alex Beck", is written over the printed name.

Workforce & Education Program Manager

Brattleboro Development Credit Corporation

76 Cotton Mill Hill

Brattleboro, VT 05301



Vermont Department of Labor

5 Green Mountain Drive

Montpelier, VT 05601

December 10, 2018

To Whom it May Concern,

This letter is on behalf of the Vermont Adult Career and Technical Education Association to express our support for the Heavy Equipment Operations proposal submitted by River Bend Career and Technical Center. Using an objective score sheet aligned with criteria developed by VACTEA and legislation establishing the Adult Career and Technical Education Equipment Grant Program, the membership present at the December 7, 2018 meeting scored this proposal higher than the 80% threshold established by the Executive Committee for the approval of equipment proposals.

We would like to thank the Vermont Department of Labor in advance for their support of this project and believe that it will further the VACTEA vision to become the preferred training provider of quality programs that meet Vermont's workforce needs.

Sincerely,

A handwritten signature in blue ink that reads 'Len Schmidt'.

Len Schmidt

2017-19 President

Vermont Adult Career and Technical Education Association

Learn. Enrich. Advance.

