

**SAFETY AND HEALTH INVESTMENT PROJECTS  
FINAL REPORT**

**Crane Controller Training and Signal Person Qualification  
2016XA00316  
June 30, 2016 – September 30, 2018**

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**Master Builders Association of King and Snohomish Counties  
9/30/2018**



Washington State Department of  
**Labor & Industries**  
*Division of Occupational Safety and Health*

# PART I

## *Narrative Report*

**Abstract:**

Present a short overview of the nature and scope of the project and major findings (less than half a page).

The Master Builders Association of King and Snohomish Counties, together with partner Jesse Michaletz of Buildsafe Solutions, intended to develop a Certified Mobile Crane Signal Person training course to address an urgent need in our area. The Seattle metropolitan region is experiencing an historic building boom and both the community and our membership have expressed the need for affordable safety training.

Our goal was to develop the training materials, evaluation tools, and simulation software, as well as to provide six two-day classes during the grant period and provide training to 72 small business, residential workers. In addition, we set out to create curriculum that would allow other trainers to use the course for their own training, in an effort to reach 150 total individuals.

We have been successful in providing all of the major deliverables, including the software, curriculum, and evaluation tools. However, over the course of the grant, we had 44 registrations and 26 attendees. Our pass rate for those who came to the class was high – 22 out of 26 attendees.

**Purpose of Project:**

Describe what the project was intended to accomplish.

Well-developed training to certify crane signalers were not yet available as a resource in the public domain. This forced small businesses – a large part of our membership – to seek third-party trainers. But there is an insufficient amount of third-party trainers offering certified signal person courses in the Pacific Northwest, and the expense of employees attending these courses is often unreasonable for small businesses.

Our goal was to address this lack of public resources by developing training materials, evaluation tools, and simulation software, as well as to provide six two-day classes to 72 small business, residential workers.

**Statement and Evidence of the Results:**

Provide a clear statement of the results of the project include major findings and outcomes and provide evidence of how well the results met or fulfilled the intended objectives of the project.

**Goal 1:**

To deliver a well-designed crane training course that can be used as a tool by small businesses from multiple industries.

*The course was designed with our training partner, contract software development, and subject matter expertise, and was successful in the classroom. We had attendance from both the residential housing sector, several trainers, and safety professionals, and our pass rate for those who came to the class was high – 22 out of 26 attendees. (Note that the attendees who didn't pass were those for whom English was a second language.)*

**Goal 2:**

To offer crane training resources that meet the intent of the training requirements per Washington State regulations.

*We developed classroom materials, instructor materials, assessment materials, and simulation software per the goal.*

**Goal 3:**

To impact a targeted industry of high-risk and small businesses with limited resources.

*Our reach on this project extended to 44 registrations and 26 attendees, among them trainers and many small businesspersons from among our membership. While we didn't meet our goal in terms of raw numbers, there are now 22 new qualified signal persons for mobile cranes working in our area thanks to this class, including trainers who are able to extend our reach. In addition, our course materials will be available through the state because of this grant, where they will continue to have an impact.*

**Goal 4:**

To provide knowledge to industry on a topic that has relatively new training requirements.

*Again, the software development, evaluation tools, and curriculum development were extremely successful, resulting in a pass rate of 85% for students attending the course.*

**Deliverables:**

16-hour crane controller and signal person qualification training material

*Delivered*

Qualified Signal Person evaluation tools

*Delivered*

Crane Simulation Software

*Delivered*

Six 2-day courses delivered to industry

*All scheduled, but only five were held. (One class was canceled due to no shows.)*

**Measures to Judge Success:**

If relevant, state what measures or procedures were taken to judge whether/ how well the objectives were met and whether the project or some other qualified outside specialist conducted an evaluation.

Most significantly, pass rate, but also quality of instruction per subject matter expert and student feedback.

**Relevant Processes and Lessons Learned:**

Specify all relevant processes, impact or other evaluation information which would be useful to others seeking to replicate, implement, or build on previous work

AND

Provide information on lessons learned through the implementation of your project. Include both positive and negative lessons. This may be helpful to other organizations interested in implementing a similar project.

The grant application process seems to have gone smoothly and and the partners with whom MBAKS contracted provided expert, timely curriculum development, professional feedback, and expert software development that resulted in a high pass rate and positive student feedback.

The budget process has required attention, though we are under budget overall. It would have been helpful to have a more itemized, detailed budget that directly corresponded to internal GL codes in place before work on the grant began, as well as a single, consistent process to tracking invoices and other expenditures over the entire period of the grant, regardless of who was administrator.

As our pass rate was high, and those that failed the exams spoken English as a second language, so we believe it would be helpful to develop written materials in both Spanish and Russian to use with this course.

The time the team spend on the curriculum paid off – the pass rate was 85%, we’re very proud of the course quality, and we’re excited that the materials will be available from the state to the public. However, we missed the mark in terms of the registrations and attendees in spite of consistently coming up with creative ways to reach our target audience online, in print, and through our connections in the industry. The consensus of the team is that the fact that the class was free to students worked against attendance and that a nominal fee may have ensured a higher attendance rate. In addition, it’s possible that the training itself – while vital for the industry – may not have been as much of an interest as expected to residential builders, especially busy single-family builders.

**Product Dissemination:**

Outline of how the products of the project have been shared or made transferrable.

All of the materials – including curriculum, class materials, instructor materials, software, etc. - are available on a thumb drive that we are providing with this report.

**Feedback:**

Provide feedback from participants, trainees, individuals who have used your products/processes, as well as any reports from an independent evaluator on the project.

The student evaluations provided by our partner Buildsafe were consistently high (3 out of 3) . Our pass rate was 22 out of 26.

**Project's Promotion of Prevention:**

Explain how the results or outcomes of this project promote the prevention of workplace injuries, illnesses, and fatalities?

This project was germane to promoting industry safety, including workplace injuries and fatalities. The bulk of the product delivered under this grant was the training course, Crane Controller and Signal Person Qualification, and continues to be ideal for individuals who carry daily crane use responsibilities. The course provides a more holistic view than other signal person courses and includes topics such as crane management, high risks, crane foundations, load charts, range diagrams, crane dynamics, rigging oversight, and signal person requirements.

**Uses:**

How might the products of your project be used within the target industry at the end of your project?

Is there potential for the product of the project to be used in other industries or with different target audiences?

The materials could definitely continue to be used by the residential construction industry, but could be extended to commercial construction and any size business.

**Organization Profile:**

For awarded organizations, to include partners and collaborators, provide a brief description of each organization. Mission, vision, and purpose for each of the organizations who applied (this includes partners and collaborators) for the grant.

The Master Builders Association of King and Snohomish Counties (MBA) was founded in 1909 by a group of Seattle builders who saw a need to unite in order to address the many concerns and issues affecting the housing industry. Our members continue to take an active role in all facets of home construction in the Puget Sound region. Our members are the professional home builders, architects, remodelers, supplies, manufacturers, and sales and marketing professionals of King and Snohomish Counties.

Our partner organization, Buildsafe, focuses on improving work environments, enhancing team members' skills, developing company operations, and creating organizational culture.

**Additional Information**

<p><b>Project Type</b></p> <p><input type="checkbox"/> Best Practice</p> <p><input type="checkbox"/> Technical Innovation</p> <p><input checked="" type="checkbox"/> Training and Education Development</p> <p><input type="checkbox"/> Event</p> <p><input type="checkbox"/> Intervention</p> <p><input type="checkbox"/> Research</p> <p><input type="checkbox"/> Return to Work</p> <p><input type="checkbox"/> Other (Explain):</p>	<p><b>Industry Classification</b> (check industry(s) this project reached directly )</p> <p><input type="checkbox"/> 11 Agriculture, Forestry, Fishing and Hunting</p> <p><input type="checkbox"/> 21 Mining</p> <p><input type="checkbox"/> 22 Utilities</p> <p><input checked="" type="checkbox"/> 23 Construction</p> <p><input type="checkbox"/> 31-33 Manufacturing</p> <p><input type="checkbox"/> 42 Wholesale Trade</p> <p><input type="checkbox"/> 44-45 Retail Trade</p> <p><input type="checkbox"/> 48-49 Transportation and Warehousing</p> <p><input type="checkbox"/> 51 Information</p> <p><input type="checkbox"/> 52 Finance and Insurance</p> <p><input type="checkbox"/> 53 Real Estate and Rental and Leasing</p> <p><input type="checkbox"/> 54 Professional, Scientific, and Technical Services</p> <p><input type="checkbox"/> 55 Management of Companies and Enterprises</p> <p><input type="checkbox"/> 56 Administrative and Support and Waste Management and Remediation Services</p> <p><input type="checkbox"/> 61 Educational Services</p> <p><input type="checkbox"/> 62 Health Care and Social Assistance</p> <p><input type="checkbox"/> 71 Arts, Entertainment, and Recreation</p> <p><input type="checkbox"/> 72 Accommodation and Food Services</p> <p><input type="checkbox"/> 81 Other Services (except Public Administration)</p> <p><input type="checkbox"/> 92 Public Administration</p>
<p><b>Target Audience:</b></p>	<p><b>List, by number above, industries that project products could potentially be applied to.</b></p> <p>23</p>
<p><b>Languages:</b></p>	<p><b>Potential impact (in number of persons or companies) after life of project?</b></p>
<p><b>Please provide the following information - - (information may not apply to all projects)</b></p>	
<p># classes/events:</p>	<p>5</p>
<p># hours trained</p>	<p>16 each</p>
<p># students under 18</p>	<p>0</p>
<p># workers</p>	<p>44</p>
<p># companies represented</p>	<p>72</p>
<p># reached (if awareness activities)</p>	
<p><b>Total reached</b></p>	
<p><b>Have there been requests for project products from external sources?</b></p>	
<p><i>If Yes, please indicate sources of requests:</i></p>	



## PART II

### *Financial Information Budget Summary*

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**Project Title:** Crane Controller Training and Signal Person Qualification

**Project #:** 2016XA00316

**Report Date:** May 1, 2018

**Contact Person:** Aaron Adelstein

**Contact #:** 425-460-8230

**Start Date:** June 6, 2016

**Completion Date:** May 1, 2018

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<b>1.</b>	<b>Total original budget for the project</b>	\$ 172,161.52
<b>2.</b>	<b>Total original SHIP Grant Award</b>	\$ 127,688.15
<b>3.</b>	<b>Total of SHIP Funds Used</b>	\$ 127,688.15
<b>4.</b>	<b>Budget Modifications (= or - if applicable)</b>	\$ <u>0.00</u>
<b>5.</b>	<b>Total In-kind contributions</b>	\$ 44473.37
<b>6.</b>	<b>Total Expenditures (lines 3+4+5)</b>	\$ <u>172,161.52</u>

#### Instructions:

- Complete the Supplemental Schedule (Budget) form first (on the next page).
- The final report must include all expenditures from date of completion of interim report through termination date of grant.
- Indicate period covered by report by specifying the inclusive dates.
- Report and itemize all expenditures during specified reporting period per the attached supplemental schedule.
- Forms must be signed by authorized person (see last page).
- Forward one copy of the report to **Caprice Catalano, SHIP Grant Manager at PO Box 44612, Olympia, WA 98504-4612**



PART II (Continued)  
 Financial Information  
 Supplemental Schedules (Budget)

<b>Project Title:</b>	Crane Controller Training and Signal Person Qualification		
<b>Project #:</b>	2016XA00316	<b>Report Date:</b>	May 1, 2018
<b>Contact Person:</b>	Aaron Adelstein	<b>Contact #:</b>	425-460-8230
<b>Total Awarded:</b>	127,688.15		

**ITEMIZED BUDGET:** How were SHIP award funds used to achieve the purpose of your project?

	Budgeted for Project	Amount Paid Out	Difference
<b>A. PERSONNEL</b>	56531.68	59448.85	-2917.17
Explanation for Difference and other relevant information: Paid to Jesse Michaeletz (Buildsafe) and internal personnel Skylar O'Harlow and Eileen Calabro. Difference is a result of inaccurate estimates of how many internal hours would be spent administering the grant.			

	Budgeted for Project	Amount Paid Out	Difference
<b>B. SUBCONTRACTOR</b>	51200.00	51200.00	0
Explanation for Difference and other relevant information: Paid to Wayne Gotts (Subject Matter Expert) and Vista Software.			

	Budgeted for Project	Amount Paid Out	Difference
<b>C. TRAVEL</b>	0	0	0
Explanation for Difference and other relevant information: n/a			

	Budgeted for Project	Amount Paid Out	Difference
<b>D. SUPPLIES</b>	1756.47	1756.47	0
Explanation for Difference and other relevant information: Paid for classroom projector and class supplies.			

	Budgeted for Project	Amount Paid Out	Difference
<b>E. PUBLICATIONS</b>	0	0	0
Explanation for Difference and other relevant information: n/a			

	Budgeted for Project	Amount Paid Out	Difference
<b>F. OTHER</b>	16700.00	16700.00	0
Explanation for Difference and other relevant information: MBAKS didn't charge internally for on-site room rental and we came in underbudget with printing, marketing, and other expenses.			

	Budgeted for Project	Amount Paid Out	Difference
<b>TOTAL DIRECT COSTS</b>	127,688.15	127,688.15	0
	Budgeted for Project	Amount Paid Out	Difference

<b>TOTAL INDIRECT COSTS</b>			
	Budgeted for Project	Amount Paid Out	Difference
<b>TOTAL SHIP BUDGET</b>			

	Budgeted for Project	Amount Paid Out	Difference
<b>G. IN-KIND</b>	44473.37	44473.37	0
Explanation for Difference and other relevant information: These expenses were calculated at the beginning of the project to include coffee and filtered water for instructor and students at each class session, travel expenses for the instructor, office expenses, information technology (software licenses), the partner (Buildsafe) rate discount of 53.6%, and rigging hardware for props.			

I hereby certify that the expenditures listed on this report were made with my approval:

9/30/2018  
Date

Aaron Adelstein  
Signature of Project Manager

PART III  
***Attachments:***

Provide resources such as written material, training packages, or video/ audio tapes, curriculum information, etc. produced under the grant.

Also include copies of publications, news releases, curriculum, posters, brochures, etc.

**The above information should also be provided on a CD or DVD for inclusion in the file.**

- DVD: must be in an MP4 format  
Other video files must be provided in uncompressed source files.
- Publications:  
PDF of publication should be provided. SHIP also needs the original publishing documents (design documents), .eps, and .psd (if any illustrations/graphics are used)

**REMINDER!!:** All products produced, whether by the grantee or a subcontractor to the grantee, as a result of a SHIP grant are in the public domain and can not be copyrighted, patented, claimed as trade secrets, or otherwise restricted in any way.