

2021

# HJ Morris Residential Construction Safety



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## 1. Project Context

OSHA inspectors conduct safety checks as a home is being built. The contractor is fined a substantial amount of money if the inspector finds items that did not pass the industry safety standards. The contractor should train and/or retrain company employees in the essential construction safety skills and how to recognize and prevent construction hazards. In years past, HJ Morris Construction provided an in-person ILT annually. However, Covid eliminated the option of in-person training and provided a need for eLearning. This Residential Construction Safety eLearning is specific to HJ Morris Construction. The objective is to provide an eLearning course option to all sub-contractors to ensure injuries remain at zero and safety fines decrease by 80%.

## 2. Project Requirements

	Estimated Hours	Estimated Cost @\$60/hr
Front End Analysis	7.90	\$ 474
Instructional Design	11.06	\$ 664
Storyboarding	8.69	\$ 521
Graphic Production	8.69	\$ 521
Video Production	3.16	\$ 190
Audio Production	5.53	\$ 332
Authoring/Programming	13.43	\$ 806
QA Testing	4.74	\$ 284
Project Management	4.74	\$ 284
SME/Stakeholder Reviews	5.53	\$ 332
Pilot Test	3.16	\$ 190
Other	0.79	\$ 47
<b>Totals</b>	<b>77.42</b>	<b>\$4645.00</b>

### **3. Learning Requirements**

Information about the audience:

- Residential Construction Subcontractors
- 95% male between the ages of 25-45.
- Education level – Varies between real-world work experience thru a 4-year Undergraduate Degree.
- Learners will have access to the course via the internet on a PC, tablet, or phone.

### **4. Learning Objectives**

- Recognize the 9 major risks of construction hazards and how to avoid them
- Describe ways to protect themselves from hazards
- Learn how to select and use Personal Protective Equipment (PPE)
- Apply safety procedures when working in a construction environment
- Be familiar with OSHA safety standards

### **5. Instructional Strategy**

- This course will be 100% eLearning including a downloadable workbook. HJ Morris will be notified when the course is successfully completed with a 75% or better. The learner will be instructed to email the completed workbook to HJ Morris. Once the workbook has been received, the learner will be issued a Certificate of Completion by HJ Morris.
- Each module will include text, appropriate visuals, and videos for demonstration. The learner will have the option of reading the on-screen text or have the text read to them when clicking a speaker icon.

### **6. Assessment Strategy**

- Formative assessments are at the end of each module in the form of two scenario-based or interactive questions.
- A standardized multiple-choice summative assessment will be required upon course completion. The assessment will consist of 40 standard OSHA compliant multiple-choice questions. Each question will be worth 2.5 points. A passing score is 75% which allows the learner to answer 10 questions incorrectly. The learner will have one chance to re-take the 40-question assessment. If the learner is unsuccessful after the second assessment, then the course will reset forcing the learner to complete the 3-hour course a second time.

## 7. Development Tools

- Articulate Storyline is the primary authoring tool that provides interactive eLearning.
- Canva is a design tool that provides stock photos, graphics, and videos.
- Envato Elements is a design tool that provides graphic templates and music tracks.
- Microsoft Office is a software source used for documents and spreadsheets.

## 8. Course Branding



# **Residential Construction Safety Outline**

The seat time for this course is 3 hours. HJ Morris construction will receive the completed workbook and quiz results upon completion.

## **Introduction (5 min, 2 slides)**

This training will describe and demonstrate the common construction hazards in residential housing construction. Subcontractors will utilize the training information on the job site when they conduct their construction safety checklist.

## **Module 1: Personal protective equipment (15 min, 7 slides)**

What is personal protective equipment?

What personal protective equipment is essential to prevent injuries in construction safety?

- i. Hard Hats (Standard 1926.100)
- ii. Boots (Standard 1926.96)
- iii. Hearing Protection (Standard 1926.101)
- iv. Eye Protection (Standard 1926.102)
- v. Respiratory Protection (Standard 1926.103)

## **Module 2: FALL PROTECTION (20 min, 8 slides)**

What data does OSHA provide?

- i. Fall protection provided for heights 6 ft. or more.
- ii. Harness is worn correctly and attached to secure anchorage.
- iii. Install Slide Guards across the entire width and all sides.
- iv. Guardrails set up for openings >6' above lower level.
- v. Guardrails are constructed sturdily with 2 x 4s

## **Module 3: Ladders 1926.1053 (10 min, 2 Slides)**

- i. Correct size.
- ii. Fully opened and spreader bars locked.
- iii. Firm foundation.
- iv. Climbing procedures.
- v. Three-point contact rule.
- vi. Free from defects.
- vii. Top 2 steps.
- viii. Support when extended.

## **Module 4: SCAFFOLDS (10 min, 3 slides)**

- i. Fall protection used if over 10 feet tall.
- ii. Level, stable footing.
- iii. Appropriate width for the type of scaffold.

### **Module 5: MACHINE HAZARDS (10 min, 4 slides)**

- i. Use of power tools.
- ii. Workers have appropriate PPE and keep clothing away.
- iii. Nail guns training.
- iv. Tile and concrete cut with wet methods.

### **Module 6: HEAT STRESS (10 min, 2 slides)**

- i. Preventing recognizing heat-related illness.
- ii. Water and appropriate rest breaks.

### **Module 7: LEAD PAINT HAZARDS (10 min, 2 slides)**

- i. Handling lead dust.
- ii. Work area adequately contained.

### **Module 8: ELECTRICAL HAZARDS (10 min, 2 slides)**

- i. Electrical circuits or energized equipment.
- ii. Overhead and underground electrical power lines.
- iii. Equipment or materials more than 10 feet from any electrical power lines.

### **Module 9: EXCAVATIONS (10 min, 3 slides)**

- i. Conditions inspected every day.
- ii. Safe exits (ladders) for excavations more significant than 4 ft. deep.
- iii. Shoring, shielding, and inclination assessed for excavations greater than 5 ft. deep

### **Review (10 min, 4 slides)**

This training has described and demonstrated the common construction hazards in residential housing construction. Subcontractors will now utilize the training information on the job site when they conduct their construction safety checklist.

### **Final Assessment – 40 Questions (40 min)**

## PROJECT COMPLETION – SIGN OFF SHEET

**Project Name:** Residential Construction Safety

**Design Document Delivery Date:** May 1, 2021

**Client Name:** Hank Morris

**Approving Client Representative:** NA

### PROJECT DELIVERABLES

Deliverable Name	Expected Completion	Date Delivered	Approved by:
Course Outline	April 15, 2021	April 9, 2021	H. Morris
eLearning Course	June 11, 2021		
Workbook	June 18, 2021		
eLearning Course Revision	June 25, 2021		