

Concrete and Cement Masonry: Book Three

Student Workbook

Objective Sheet

Information Sheets

Assignment Sheets

Job Sheets

Developed by the
Curriculum and Instructional Materials Center
for the Trade and Industrial Education Division
Oklahoma Department of Career and Technology Education

Copyright 2009

Oklahoma Department of Career and Technology Education
Curriculum and Instructional Materials Center

All rights reserved.

Printed in the United States of America by the
Oklahoma Department of Career and Technology Education
Stillwater, Oklahoma 74074-4364

This publication, or parts thereof, may not be reproduced in any form by photographic, electrostatic, mechanical, or any other methods for any use including information storage and retrieval, without written permission from the publisher.

Web site addresses were accurate and all content on referenced web sites was appropriate during development and production of this product. However, web sites sometimes change; the CIMC takes no responsibility for a site's content. The inclusion of a web site does not constitute an endorsement of that site's other pages, products, or owners. You are encouraged to verify all web sites prior to use.

The Oklahoma Department of Career and Technology Education does not discriminate on the basis of race, creed, color, national origin, sex, age, veteran status, or qualified handicap.

TABLE OF CONTENTS

Student Workbook

One set per unit of the following components:

- Objective Sheet
- Information Sheet
- Assignment Sheets (as appropriate)
- Job Sheets (as appropriate)

UNIT 1	
SMALL ENGINE OPERATION AND MAINTENANCE	1-1
UNIT 2	
STRUCTURAL REPAIR.	2-1
UNIT 3	
STRUCTURAL GROUT	3-1
UNIT 4	
SEALANTS.	4-1
UNIT 5	
SHOTCRETE	5-1
UNIT 6	
POWER SCREEDS.	6-1
UNIT 7	
TROWEL MACHINES	7-1
UNIT 8	
SUPERFLAT FLOORS	8-1
UNIT 9	
TILT-UP PANELS, PRECAST AND POST-TENSIONED CONCRETE.	9-1
UNIT 10	
EPOXY FLOORS AND SPECIAL COATINGS	10-1
UNIT 11	
EXPOSED AGGREGATE FINISHES	11-1
UNIT 12	
UNDERLAYMENT/OVERLAYMENT	12-1
UNIT 13	
DECORATIVE SAWCUTTING	13-1
UNIT 14	
STENCILING AND IMPRINTING	14-1
UNIT 15	
CHEMICAL STAINING	15-1
UNIT 16	
ABRASIVE BLASTING	16-1
UNIT 17	
PERVIOUS CONCRETE	17-1

ACKNOWLEDGMENTS

Project Manager: Randy Kirk

Advisory Committee

Patrick D. Finley
General President, OPCMIA

Edison Keomaka, Director of Training
Local 630, Honolulu, Hawaii

Earl F. Hurd
Secretary-Treasurer, OPCMIA

Mark Maher, Training Director
Western Washington Cement Masons
Apprenticeship
Local 528

Daniel E. Stepano
Executive Vice President, OPCMIA

Gerald J. Ryan
International Representative
Director of Training, Health and Safety,
OPCMIA

William Wynn, Retired Apprenticeship
Coordinator
Oregon & Southwest Washington
Cement Masons Local 555

Mark Gonzalez, Director of Training
Northern California Cement Masons
J.A.T.C.

Alise Martiny, President
Local 518 Kansas City, Missouri

Electronic

Document Specialist: Patty Burrell
Melinda Hawk

Art Department: Kim Hale
Art Department staff

Writers: Robert Hilley
David Wright
Dr. Lana Faulks
Cheryl Elias

SPECIAL THANKS

Many thanks go to the professionals at the Oklahoma Department of Career and Technology Education whose hard work and support made this publication possible, especially Larry Bullock in the Trade and Industrial Education Division. At the Curriculum and Instructional Materials Center, we are grateful for the support of Kimberly Sadler and Craig Maile. Also at CIMC, thanks to Ranae Abraham and Amy Haney for handling the contracts, correspondence, and committee meetings related to this publication.

Special thanks to:

- Edward Sauter, Tilt-Up Concrete Association
- R.M. Simonelli, Flooring Consultant, Simonelli Concrete Consulting, Inc.
- L. M. Scofield Company, Douglasville, Georgia
 - ❑ James K. Crawford, General Manager, Operations
 - ❑ Scott Thome, Director of Product Services
 - ❑ Victor Davis, Supervisor of Product Training
- John Trout and Bob Trout, Lily Corporation, for technical advice and photos
- Multi-State Curriculum Consortium for small engine material
- Mauricio Robles, OPCMIA for Spanish translation of PowerPoints
- Jon Martin, Education Director, Western Washington Cement Masons

This publication could not have been printed without the expertise and commitment of the Printing Plant staff under the supervision of Danny Darrow. Delivery of the final product was accomplished through the excellence of the Curriculum Customer Service staff under the direction of Lana Austin, and the CIMC Warehouse staff, under the direction of Darrell Stiles.

Randy Kirk
Project Manager

I would like to thank the OPCMIA committee and all of the people who helped publish this curriculum. It once again shows that with hard work, commitment and dedication our cement masons can be — and are — the best skilled craftspeople in the business today while ensuring the future of our trade through the solid and comprehensive training this manual offers.

Patrick D. Finley
General President, OPCMIA