

MASONRY 1, 2, 3, AND 4

MATERIALS AND EQUIPMENT LIST

Introduction to Masonry:

Overhead projector and screen
Transparencies
Whiteboard / chalkboard
Markers/chalk
Blank acetate sheets
Transparency pens
Pencils and scratch paper
Appropriate personal protective equipment:
Various types of eye and respiratory protection
Safety harness and hardware
ASTM standards on concrete block and masonry mortar
Various types of brick
Various types of concrete blocks
Various trowels
Mortar mix
Mortar mixing pan
Mortar hoe
Wheelbarrow
Standard bricks
Standard concrete blocks
Module Examinations
Performance Profile Sheets

Masonry Tools and Equipment:

Overhead projector and screen
Transparencies
Whiteboard / chalkboard
Markers/chalk
Blank acetate sheets
Transparency pens
Pencils and scratch paper
Appropriate personal protective equipment
Different types of masonry hand tools, including:
Trowels
Hammers
Jointers
Chisels
Levels
Brick spacing rules
Plumb bob
Different types of power tools, including:
Masonry saws
Masonry splitters
Grinders
Mortar mixer

Scaffolding
Module Examinations
Performance Profile Sheets

Measurements, Drawings, and Specifications:

Overhead projector and screen
Transparencies Whiteboard / chalkboard
Markers/chalk Blank acetate sheets
Transparency pens
Pencils and scratch paper
Appropriate personal protective equipment
Engineer's rule Brick
Course rule
Brick spacing rule Calculator
Drawing set / blueprints
Module Examinations
Performance Profile Sheets

Mortar:

Overhead projector and screen
Transparencies Whiteboard / chalkboard
Markers/chalk Blank acetate sheets
Transparency pens Pencils and scratch paper
Appropriate personal protective equipment
Mortar ingredients, including:
Sand
Water
Portland cement
Lime
Water
Materials to build a cubic foot box
Mixing tools
Cubic foot box Mechanical mortar mixer
Mortar pan
ASTM Standards for Mortar
Samples of hardened mortar
Module Examinations
Performance Profile Sheets

Masonry Units and Installation Techniques:

Overhead projector and screen
Transparencies Whiteboard / chalkboard
Markers/chalk Blank acetate sheets Transparency pens Pencils and scratch paper

Appropriate personal protective equipment
ASTM standards for CMUs
ASTM standards for concrete bricks
Bricks
Chalkline
Crayons or wax markers
Medicine dropper Spacing jigs
Concrete blocks Brick set chisels Block set chisels Hammers
Mason's hammers
Mason's lines Line blocks Line pins
Line trigs
Masonry saw Masonry power saw
Mashes
Mortar mix Mortar pans Trowels
Mason's levels Plumb bobs Rakers
Jointers
Sledrunners Splitters
Masonry brushes
Tuckpointers
MSDS for masonry cleaning solution
Module Examinations
Performance Profile Sheets

Residential Plans and Drawing Interpretation:

Overhead projector and screen
Whiteboard / chalkboard
Plan sets from Masonry Level 1, Mathematics, Drawings, and Specifications
Architect's scales Engineer's scales Mason's rules
4-function calculators (Optional)
Trainee Task Module
Transparencies Module Examinations
Performance Profile Sheets
Paper and pencils Markers/chalk

Residential Masonry:

Overhead projector and screen
Whiteboard / chalkboard
Appropriate Personal Protective Equipment
Framing square
Measuring tape
Modular rule
Brooms Jointers Level
Hand tamper
Rubber mallots

Mortar mixer
Shovels
Water hose/barrel(s) and buckets
Mortar pans and boards
Trowels Plumb bob
Striking tool
Trainee Task Module
Markers/chalk
Transparencies
Paper and pencils
Brick
Block
Firebrick Sand
Cement Brick pavers
Dimensional limber
Plywood sheets
Photographs of local brick steps and walks
String
Brochure from damper manufacturer
Module Examination
Performance Profile Sheets

Grout and Other Reinforcement:

Overhead projector and screen
Whiteboard / chalkboard
Two-speed grout (cement) mixer
Measure(s)
Bucket(s)
Mechanical vibrator(s)
Trowel Level
Appropriate Personal Protective Equipment
Trainee Task Module
Transparencies
Markers/chalk
Paper and pencils
Module Examinations
Performance Profile Sheets
Grout mix
Water
Blocks and low block wall (less than 5 feet)
Mortar Sand
Rod(s) Steel rebar
Rebar spacers and tie wire
Bond beam blocks
Dimensional lumber for wall foundations

Concrete masonry units

Metal Work in Masonry:

Overhead projector and screen
Whiteboard / chalkboard Mortar mixers and pans Bracing lumber or jigs
Appropriate Personal Protective Equipment
Trainee Task Module Transparencies
Markers/chalk
Brick
Block
Mortar or Kaolin mix Water
Materials (Continued) Steel reinforcement bar Bar spacers
Rigid continuous joint reinforcement
Adjustable continuous reinforcement
Rigid unit ties (hardware cloth)
Adjustable unit ties Rigid anchors and bolts Flexible anchors
Knockdown door frames Set-up door frames Wooden jamb blocks Lug or slip sills
Module Examination Performance Profile Sheets

Advanced Laying Techniques:

Overhead projector and screen
Whiteboard / chalkboard
Appropriate Personal Protective Equipment Water hose/barrel(s) and buckets
Mortar mixer
Mortar boards and pans
Mixing shovels
Course or modular spacing rule
Framing square
4-foot mason's level
Chalk line
Mason's line and trigs
Corner blocks or stretchers
Trowels
Mason's hammer
Brick set
Block set
Concave jointer
Dusting brush Five-gallon pail Hammer
Steel tape
Trainee Task Module
Transparencies Markers/chalk Paper and pencils
ASTM C139
OSHA Regulations on confined spaces
Marking crayons

Local building code reference
Manufacturer's literature on prefabricated panels and interlocking block
Interlocking block
Building paper
Copper strips
Neoprene strips
Cement
Lime or kaolin
Sand Water
Batter block
Metal ties
Wooden stakes
Z-ties Brick Block
Dimensional lumber (2 × 4)
Plywood sheets
Nails
Module Examination
Performance Profile Sheets

Construction Techniques and Moisture Control:

Overhead projector and screen
Whiteboard / chalkboard Trowel
Level
Parging Trowel
Mixing container(s) and tool(s)
Appropriate Personal Protective Equipment
Trainee Task Module Transparencies
Markers / chalk
Pencils and paper Module Examination Performance Profile Sheets
Brick / Block
Mortar
Flashing materials Loose fill insulation Blanket or batt insulation Anchors
Portland cement
Sand
Water
Wicking materials
Wire mesh or metal lath Dimensional lumber

Elevated Work Equipment:

Overhead projector and screen
Whiteboard / chalkboard Safety harness(es)
Tubular steel scaffolding components
Appropriate Personal Protective Equipment
Hand tools

Trainee Task Module Transparencies

Markers/chalk

Paper and pencils Brick

Planks

Dimensional lumber Module Examination Performance Profile Sheets

Construction Inspection and Quality Control:

Overhead projector and screen

Whiteboard / chalkboard

Measures

Mixing containers Rods

Jars or beakers Slump test kits Eyedroppers

Appropriate Personal Protective Equipment

Mason's tools Trainee Task Module

Transparencies Markers/chalk Paper and pencils Module Examination

Block

Brick

Mortar or Kaolin mix

Sand

Water

Paper towels Masking tape

Scrap lumber for bases

Sodium hydroxide solution

Copies of ASTM Standards Book

Masonry In High-Rise Construction:

Overhead projector and screen Whiteboard / chalkboard

Appropriate Personal Protective Equipment

Mortar mixer

Basic masonry tools

Mortar container(s)

Safety harnesses

Lanyards and associated hardware

Lifelines and associated hardware

Trainee Task Module Transparencies

Markers/chalk

Paper/pencils

Module Examination Performance Profile Sheets Bricks

Blocks

Mortar or Kaolin mix Flashing materials

Flexible sealant material Sand

Water

Mortar nets

Metal coping

Reglets
Dimensional lumber (2 × 2 and 2 × 4)
OSHA Materials Handling Guidelines

Specialized Materials and Techniques:

Overhead projector and screen
Whiteboard / chalkboard
Appropriate Personal Protective Equipment
Cutting benches with sand tray tops or sandbags
Basic masonry tools Containers
Mortar mixer
Story poles
Hammers
Saws
Screwdrivers
Brushes
Half barrels or other curved containers
Stone cutting chisels Spirit levels
Carpenter's squares Trainee Task Module Transparencies
Markers/chalk
Paper/pencils
Module Examination Performance Profile Sheets
Rubble stone
Cultured stone
Ashlar
Glass block
Refractory brick
Acid brick
Concrete block
Glazed masonry tile, including cove and bullnose units
Mortar or kaolin mix Marking crayons
Water
Ties
Anchors
Concrete
Dimensional lumber Plywood
Nails/screws
Form oil or form release agent
String line
Wax
Rags
Oakum
Copies of Local Building Codes
Manufacturer's brochures on surface coatings, glass block, and refractory brick
Different types of stone

Repair and Restoration:

Overhead projector and screen
Whiteboard / chalkboard
Appropriate Personal Protective Equipment
Basic masonry tools Mortar containers Tuckpointing trowels Tuckpointing grinders
Buckets
Brushes, soft and hard Plugging chisel
Electric drill
Masonry drill bits Grout bags
Trainee Task Module Transparencies
Markers/chalk
Paper/pencils
Module Examination Performance Profile Sheets
Mortar mix
Sand
Water
Rags
Inspection checklists Brick
Wall(s) with damaged joints
Wall(s) with stains (applied by Instructor)
Detergents and soap Muriatic acid

Commercial Drawings:

Overhead projector and screen
Whiteboard / chalkboard Architect's scales
Appropriate Personal Protective Equipment
Trainee Task Module Transparencies
Markers/chalk
Paper/pencils
Module Examination Performance Profile Sheets
Commercial drawings

Estimating:

Overhead projector and screen
Whiteboard / chalkboard Four-function calculators Architect's scales
Trainee Task Module Transparencies
Markers/chalk
Module Examination Performance Profile Sheets
Paper/pencils
Commercial drawings Residential drawings Estimating worksheets

Project Planning and Supervision:

Overhead projector and screen
Whiteboard / chalkboard
Optical levels Laser level
Leveling rods Rotating laser level
Appropriate Personal Protective Equipment
Straightedges Materials
Trainee Task Module
Transparencies Markers/chalk Paper/pencils Module Examination
Performance Profile Sheets
Examples of CPM diagrams
Construction stakes
Purchase orders Local building codes
Sample contract documents
Example bar chart schedule
Straightedges