

Competency Task List – Secondary Component
Building/Property Maintenance & Manager CIP 46.0401
High School Graduation Years 2023, 2024, 2025

100 Safety

- 101 Follow general shop safety procedures.
- 102 Wear personal protective equipment.
- RESERVED (103)
- 104 Identify the components of the Occupational Safety and Health Act (OSHA) and state its purposes.
- 104a Obtain CareerSafe 10 Hour General Industry OSHA Certification
- 105 Lift and carry objects using ergonomics.
- 106 Follow Safety Data Sheets (SDS).
- 107 Follow general ladder safety.
- 108 Identify scaffolding and other elevated work surfaces.
- 109 Identify classes of fires and types of fire extinguishers.
- 110 Follow fall protection safety procedures.
- 111 Identify the requirements of building permits.
- 112 Demonstrate knowledge of excavation safety procedures
- 113 Obtain general first aid knowledge
- 114 Demonstrate knowledge of confined space procedures
- 115 Maintain cleanliness and safety in work area
- 116 Demonstrate knowledge of hazardous materials in workplace (e.g. asbestos, lead, solvents, coatings and removal.)
- 117 Perform lock-out/tag-out and other electrical safety.
- 118 Perform classroom lockdown, severe weather and fire procedures.

200 Building and Property Maintenance

- 201 Follow building and property maintenance (BPM) lab rules and procedures.
- RESERVED (202)
- 203 Follow safety rules for tools, machines, and processes.
- RESERVED (204)
- 205 Identify lab tools and equipment.
- 206 Keep daily timecards and project logs.
- 207 Record daily units/hour records.
- RESERVED (208)

RESERVED (209)

210 Use safe methods of storing materials and supplies.

211 Use measuring devices.

212 Estimate quantities of materials.

RESERVED (213)

RESERVED (214)

300 Carpentry and Repairs

301 Identify common building materials.

302 Read and interpret building plans.

303 Prepare a bill of material.

304 Layout stock.

305 Layout angles.

306 Find the center line of stock.

307 Use a sliding T-bevel to transfer an angle.

308 Transfer a cut line using a marking gauge.

309 Test a level for accuracy in the vertical and horizontal positions.

309a Transfer a point using a plumb bob.

310 Check a horizontal surface using a level. **and using laser tools.**

311 Check a vertical surface using a level. **and using laser tools.**

312 Snap a chalk line.

RESERVED (313)

314 Bore holes with various drill bits.

RESERVED (315)

316 Select nails for a specific job.

317 Drive and remove nails using a claw hammer.

RESERVED (318)

319 Pull nails with a wrecking bar or other nail removal tools.

RESERVED (320)

321 Select and install screw-type fasteners.

322 Identify fasteners and anchors for various uses.

RESERVED (323-326)

327 Check for square.

400 Portable Power Tools

- 401 Follow safety rules and procedures for using portable power tools. , including pneumatic and other power-ops
- 402 Operate portable electric and battery-operated drills.
- 403 Operate a metal cutting (abrasive disc) chop saw.
- 404 Operate a portable jigsaw and reciprocating saw.
- 405 Operate a router.
- 406 Operate a disc grinder.
- 407 Operate an oscillating multi-tool.

500 Table Saws

- 501 Follow safety rules and procedures for using a table saw.
- 502 Rip stock on a table saw using a rip fence.
- 503 Crosscut stock on a table saw with a miter gauge.

600 Drill Presses

- 601 Follow safety rules and procedures for using a drill press.
- 602 Drill holes in metal using a drill press.
- 603 Drill holes in non-metallic materials using a drill press.
- 604 Designate safety zone identified with floor safety tape.

700 Compound Miter Saws

- 701 Follow safety rules and procedures for using a compound miter saw.
- 702 Cut stock to length on a miter saw.
- 703 Cut angles on a miter saw.
- 704 Cut compound angles on a miter saw.

800 Bench Grinders

- 801 Follow safety rules and procedures for using a bench grinder.

802 Sharpen cutting tools on a bench grinder.

803 De-burr stock on a bench grinder.

900 Tool and Machine Maintenance

901 Replace or repair broken tools. , and replace or repair all safety shield and guards.

902 Examine power tool and cords for damage and replace or repair.

903 Lubricate moving parts of power tools as recommended by the manufacturer.

904 Replace saw blades and other cutting tool accessories when dull.

905 Sharpen edge cutting tools.

906 Remove dust from power tool stators and rotors.

907 Remove paint, oils, water, and lubricants from tool handles and power tool housings and chassis.

908 Examine extension cords for damage and replace or repair male/female cord ends.

1000 Structural Floors

1001 Identify floor members.

1002 Install joist hangers.

1003 Install or replace bridging between joists.

1004 Repair (remove or replace) plywood sub-flooring on joists.

1005 Describe platform, balloon, and post and beam framing.

1006 Layout and install sill plates.

1007 Layout and install floor joists and openings.

1008 Layout and install subflooring.

1009 Repair or remove trip hazards, including blocks.

1100 Roofs

1101 Identify roof members.

1102 Identify roof types. (including metal roofing).

1102a Use fall restraint harnesses and explain standards for edge railing on commercial flat roofs.

1103 Install and repair roof sheathing.

1104 Install roofing materials on shingled roofs.

1105 Remove and replace damaged shingle(s).

- 1106 Apply sealing compounds and caulking.
- 1107 Install common rafters.
- 1108 Install and repair roof flashings.

1200 Stairs and Staircases

1200a Review all ADA rules and regulations for stairs and staircases.

- 1201 Repair stair stringers.
- 1202 Repair stair risers and treads.
- 1203 Install and repair a stair railing.
- 1204 Layout and install a stair stringer.
- RESERVED (1205)
- 1206 Repair a balustrade.

1300 Doors and Windows

- 1301 Install a lock set. exterior/interior
- 1302 Hang an interior door. /exterior
- 1303 Cut and install molding.
- 1304 Trim a door jamb.
- 1305 Trim a window, stool, apron, casing, and extension jambs.
- 1306 Cut a gain for butt hinges and install butt hinges.
- 1307 Cut a miter using a miter saw.
- 1308 Set finish nails with a nail set.
- 1309 Assemble miter joints by nailing.
- 1310 Install a deadbolt and door handles.
- 1311 Discuss electronic door access/swipe cards and push buttons.
- 1312 Discuss egress code.

1400 Interior Walls /Ceilings

- 1401 Cut drywall with a utility knife.
- 1401a Repair existing drywall.
- 1402 Install drywall board.

- 1403 Install metal corners prior to finishing drywall.
- 1404 Tape and smooth drywall.
- 1405 Cope an inside corner.
- 1406 Miter an outside corner.
- 1407 Install rubber cove base.
- 1408 Repair suspended ceiling grids and tiles.
- 1409 Describe installation of metal studs.

1500 Exterior Walls

- 1501 Install and repair siding components.
- 1502 Install, repair, and clean gutter and spouting components.
- 1503 Identify wall frame members.
- 1504 Layout, cut, and install wall frame members and wall openings.
- 1505 Install siding underlayments, housewraps, and flashings.

1600 Masonry Skills

- 1601 Perform masonry work.
- 1602 Identify and use masonry tools.
 - RESERVED (1603)
- 1604 Identify safety hazards for masonry workers.
 - RESERVED (1605)
 - RESERVED (1606)
- 1607 Cut block and brick with a masonry hammer and brick set. and saw.

1607a Lay masonry units (brick or block).

RESERVED (1608-1610)

- 1611 Strike off a block (masonry) wall.
- 1612 Clean mortar from block and brick work.
- 1613 Tar and parge a wall.
- 1617 Identify anchors for masonry repair jobs.
- 1618 Re-point brick or block walls.
- 1619 Replace masonry unit in existing masonry wall.

1700 Concrete

- 1701 Build forms for a concrete slab. including reinforcement and rebar.
- 1702 Mix concr and use additives.
- 1703 Place a concrete slab place and screed concrete.
- 1704 Float concrete.
- 1705 Finish concrete.
- 1706 Patch steps and walkways.
- 1707 Re-set masonry anchors.
- 1708 Discuss joints.

1800 Floor and Wall Tile

- 1801 Estimate the quantity of tile ne (Covered in task #212)
- 1802 Use tile terminology and determine applications.
- 1803 Use adhesives and mortars.
- 1804 Use tile tools and equipment.
- 1805 Install various types of tile (floor/wall).

1900 Residential Electrical Circuits

- 1901 Apply the National Electric Code (NEC) to common installations.
- 1902 Practice electrical safety, including lock-out-tag-out.
- 1903 Use electrical tools.
- 1904 Interpret electrical drawings.
- 1905 Identify common electrical symbols.
- 1906 Use a multimeter to identify alternating current and direct current.
- 1907 Identify wire sizes and ampacities.
- 1908 Identify wire types.
- 1909 Use connectors/wire nuts to connect or splice wire.
- 1910 Dispose of fluorescent bulbs.
- 1911 Change fluorescent bulbs /LED bulbs.
- RESERVED (1912)

- 1913 Reset an electric circuit breaker.
- 1914 Install a ground fault circuit interrupting outlet.
 - RESERVED (1915)
 - RESERVED (1916)
- 1917 Install an adjustable bar hanger.
- 1918 Install a light fixture.
- 1919 Install a duplex receptacle.
- 1920 Install a single pole switch circuit.
- 1921 Install a split wire duplex receptacle.
 - RESERVED (1922)
- 1923 Install a recessed light.
- 1924 Install outlet boxes.
 - RESERVED (1925)
- 1926 Install Romex to boxes.
 - RESERVED (1927)
- 1928 Install a three-way switch circuit.
- 1929 Install a four-way switch circuit.
 - RESERVED (1930-1932)
- 1933 Install old work boxes.
- 1934 Check and replace a 24-volt transformer.
- 1935 Install (GFCI and AFCI) circuit breakers.
 - RESERVED (1936)
- 1937 Perform proper grounding techniques.
 - RESERVED (1938)
- 1939 Install low-voltage w , controls and devices.
- 1940 Install coaxial cable for television reception.
- 1941 Install cabling for computer workstations.
- 1942 Replace or install a ceiling fan.
- 1943 Bend conduit (box off-set and 90 degree).
- 1944 Demonstrate knowledge of motion sensory/energy control management.

2000 Residential Plumbing Systems

RESERVED (2001)

RESERVED (2002)

2003 Interpret plumbing symbols.

2004 Interpret plumbing drawings.

2005 Identify types of pipes.

2006 Identify plumbing pipe fittings.

RESERVED (2007-2009)

2010 Sweat solder copper pipe and fittings using propane, MAPP, or Prestolite gas.

2011 Install and replace copper pipe and fittings.

2012 Solvent weld polyvinyl chloride (PVC) plastic pipe.

2013 Install and repair PVC plastic pipe and fittings.

2014 Repair wastewater drains.

2015 Install, replace, and repair commodes.

2016 Install lavatories and sinks.

2017 Hook up water supply lines and wastewater lines.

2018 Install or replace a garbage disposal unit.

2019 Clean and/or replace wastewater traps and pipes.

2020 Replace and repair a faucet set.

2021 Identify, install, and/or replace valves.

2022 Use compression tools for copper pipe.

2023 Install and replace Cross-linked Polyethylene (PEX) pipe and fittings.

2100 Finishing Materials

2101 Protect furniture, materials, and surrounding surfaces from overspray and paint spatter.

2102 Tape door and window trim to protect from finishing materials.

2103 Prepare a surface prior to applying a finish.

2104 Stain wood surfaces with wiping oil stains.

2105 Apply a finish material with a brush and a roller.

RESERVED (2106)

2107 Apply oil base paints.

- 2108 Apply acrylic based paints.
RESERVED (2109)
- 2110 Clean paint brushes and rollers.
- 2111 Investigate the use of high velocity low pressure (HVLP) spray painters.
- 2112 Utilize PPE for painting applications (e.g., ventilator mask, gloves)
- 2113 Maintain proper ventilation for painting applications.

2200 Reserved

2300 Portable Circular Saws

- 2301 Use a portable circular saw.
- 2302 Rip stock with a portable circular saw.
- 2303 Cross cut wood using a portable circular saw.
- 2304 Cut miters with a portable circular saw.
- 2305 Plunge cut with a portable circular saw.

2400 Environmental Control Systems

- 2401 Identify the scales on a thermometer.
RESERVED (2402)
- 2403 Define British Thermal Unit (BTU).
- 2404 Describe types of heat transfer. , (utilize trainer to check air flow, check heat transfer through convection and conduction)
- 2405 Identify the components of a gas fuel heating system.
- 2406 Identify the components of an oil fuel heating system.
- 2407 Describe filter replacement requirements for forced air systems
- 2408 Replace a thermostat.

2500 Shielded metal arc welding

- 2501 State and follow all safety rules and precautions for using an arc welder
- 2502 Strike an arc using the scratching and tapping method 6010,6011,7014,7018 electrodes
- 2503 Deposit short and continuous beads in the flat (1F), horizontal (2F), and vertical (3F) positions
- 2504 Restarting the arc in 1F, 2F, and 3F positions

2505 Weld single and multiple pass butt joints in the 1F, 2F, and 3F positions

2506 Weld single and multiple pass lap joints in the 1F, 2F, and 3F positions

2507 Weld single and multiple pass T- joints in the 1F, 2F, and 3F positions

2508 Tool and electrode identification

2508 welder set up

2509 basic weld symbol identification

2600 Mig (Metal Inert Gas) welding

2601 State and follow all safety rules and precautions for using a Mig welder

2602 Tool and electrode identification

2603 Set up a Mig welder

2604 basic weld symbol identification

2605 Deposit short and continuous beads in the flat (1F), horizontal (2F), and vertical (3F) positions

2606 Weld single and multiple pass butt joints in the 1F, 2F, and 3F positions

2607 Weld single and multiple pass lap joints in the 1F, 2F, and 3F positions

2608 Weld single and multiple pass T- joints in the 1F, 2F, and 3F positions

2700 Oxyacetylene Welding (OAW)

2701 State and follow all safety rules and precautions for using a Oxyacetylene torch

2702 Set up and identification of OAW equipment

2703 Demonstrate correct procedures for lighting a OAW torch

2704 Deposit beads with filler material

2705 Weld a butt joint in the flat position

2800 **Oxyfuel Cutting**

2801 State and follow all safety rules and precautions for using a Oxyacetylene torch

2802 Set up and identification of Oxyfuel cutting equipment

2803 Demonstrate correct procedures for lighting a OAW torch

2804 Make straight cuts using a OAW torch

2805 Make circular cuts using a OAW torch

2806 Make beveled cuts using a OAW torch

