# Construction Trades, Other CIP 46.9999 Competency Task List – Secondary Component High School Graduation Years 2023, 2024, 2025

### **100 Construction Trades Safety**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
101	Follow Occupational Safety and Health Administration (OSHA) standards.		
102	Evaluate Safety Data Sheets (SDS).		
103	Work with hazardous materials.		
104	Use personal protective equipment (PPE).		
105	Follow rules and regulations for fire protection.		
106	Handle and store construction materials.		
	RESERVED (107)		
	RESERVED (108)		
109	Follow electrical safety procedures.		
110	Differentiate between stuck-by and caught-in-between hazards.		
111	Follow working from heights safety procedures.		
112	Follow excavation site safety procedures.		
	RESERVED (113)		
114	Follow concrete and masonry safety procedures.		
115	Use ladders and scaffolding.		
116	Follow safety procedures working in confined spaces.		
	RESERVED (117)		

#### **200 Hand Tools**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
201	Use and maintain hand tools.		

202	Use and maintain layout and measuring tools.
203	Use and maintain cutting tools.
	RESERVED (204)
205	Use and maintain fastening tools.
206	Use and maintain dismantling tools.

## **300 Power Tools and Equipment**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
301	Operate a circular saw.		
302	Operate battery and electric drills and drivers.		
303	Operate belt and hand sanders.		
304	Operate reciprocating and oscillating saws.		
305	Operate routers.		
306	Operate a pneumatic and battery-operated nailer.		
307	Operate a miter saw.		
308	Operate a table saw.		
309	Operate an electric planer.		
310	Operate a grinder.		
	RESERVED (311)		

# **400 Plans and Blueprints**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
401	Interpret building codes, zoning regulations, and permits.		
	RESERVED (402)		
403	Interpret plans, sketches, and blueprints.		
404	Interpret standard abbreviations and symbols.		
405	Estimate material from a print.		
406	Use an architect scale.		

407	Identify structural components.	
408	Interpret Americans with Disabilities Act (ADA) regulations.	
409	Identify mechanical fasteners, hangers and devices.	

## **500 Site and Building Layout**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
501	Use a builder's level, transit, and/or laser level to determine site layout and building elevations.		
502	Square a structure using the Pythagorean Theorem and diagonals.		

#### **600 Concrete**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
601	Use modern concrete materials.		
602	Determine appropriate concrete finishing processes and equipment.		
603	Estimate the amount of concrete needed for footers and slabs.		
604	Lay out and build concrete forms.		
605	Use equipment and tools for concrete.		
606	Prep and place concrete.		
607	Perform basic concrete finishing processes.		
608	Use tools to edge, groove, and cut concrete.		
609	Identify the uses of admixtures and sealers.		

## 700 Block and Brick Masonry

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
701	Identify common types of masonry units.		
702	Identify concrete block by size and type.		

703	Estimate masonry units needed for block construction.
704	Use masonry cutting techniques.
705	Lay out and construct a block laying project.
706	Perform masonry positions and bonds.
707	Lay block to a line.
708	Install masonry fasteners.
709	RESERVED
710	Mix mortar to proper proportions and consistency.
711	Compare mortar types and applications.
712	Perform proper brick and block laying techniques.
713	Install block or brick walls.

# **800 Floor Framing**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
801	Identify framing materials and systems.		
802	Install girders and sills.		
803	Perform layout of floor joists and openings.		
804	Install floor joists and band joists.		
805	Install bridging.		
806	Install columns and supports.		
807	Install subfloor materials.		
808	Estimate framing material and systems.		

# 900 Wall Framing

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
901	Install components of interior and exterior walls.		
902	Install ceiling systems.		
903	Install steel framing components.		

904	Identify framing materials and systems.	
905	Estimate framing material and systems.	

## **1000 Roof Framing**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
1001	Identify framing materials and systems.		
1002	Install roof components for gable roofs.		
1003	Install roof trusses.		
1004	Install roof sheathing materials.		
	RESERVED (1005)		
1006	Calculate, layout, and cut roof rafters.		
1007	Estimate framing material and systems.		

## 1100 Roof Coverings

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
1101	Install asphalt shingles.		
1102	Install underlayment materials.		
1103	Install flashing.		
1104	Identify roof covering materials and systems.		
1105	Estimate roof covering materials and systems.		

#### **1200 Insulation Materials**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
1201	Install insulation and ventilation.		
1202	Identify insulation and ventilation materials.		
1203	Estimate insulation and ventilation materials.		

### **1300 Exterior Finishes**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
1301	Install horizontal sidings.		
1302	Install vertical sidings.		
	RESERVED (1303)		
1304	Identify exterior finish materials.		
1305	Install windows.		
1306	Install exterior doors.		
1307	Install soffit and fascia.		
1308	Install house wrap.		
1309	Estimate exterior finish materials.		

# 1400 Basic Plumbing

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
1401	Use and maintain basic plumbing tools.		
	RESERVED (1402)		
1403	Identify pipes and fittings.		
	RESERVED (1404)		
1405	Install pipes, fittings, valves, and devices.		
1406	Install faucets and drain assemblies.		
	RESERVED (1407)		
	RESERVED (1408)		
1409	Install water supply systems.		
1410	Install drain, waste, and vent systems.		
1411	Install fixtures and equipment.		
1412	Troubleshoot and repair common plumbing problems.		
1413	Estimate pipes and fittings.		

# **1500 Residential Electric Circuits and Components**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
1501	Practice electrical safety.		
1502	Apply the National Electric Code (NEC) to common residential installations.		
1503	Interpret electrical drawings.		
1504	Apply electrical theory.		
1505	Construct electrical circuits.		
1506	Install residential wire.		
1507	Use electrical tools.		
1508	Install ground fault circuit interrupters.		
1509	Install arc fault circuit interrupters.		
1510	Install over current protection devices.		
1511	Install electrical boxes.		
	RESERVED (1512)		
1513	Install light fixtures.		
1514	Install receptacle circuits.		
1515	Install switch circuits.		
1516	Install a 220-volt circuit.		
	RESERVED (1517)		
1518	Trim out and finish electrical circuits.		
1519	Install service entrance.		
	RESERVED (1520)		
	RESERVED (1521)		

# **1600 Wall Components**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
1601 Install drywall.			

1602	Install interior moldings.
1603	Identify drywall materials.
1604	Identify interior moldings.
1605	Estimate drywall materials.
1606	Estimate interior moldings.

#### **1700 Interior Finishes**

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
1701	Identify paints, stains, and their uses.		
1702	Apply paints and stains.		
1703	Clean painting tools.		
1705	Apply caulking.		
1706	Install ceramic tile.		
1707	Estimate paints and stains.		

#### 1800 Stairways

Item	Task	(X) Indicates Proficiency <sup>1</sup>	Secondary Course Crosswalk
1801	Identify stairways and components.		
1802	Calculate, lay out, and cut stair stringers.		
1803	Install stairways and components.		
<sup>1</sup> Stude	nt Demonstrated Entry-Level Industry Proficiency as Indicated by (X)		
Second	ary CTE Instructor Signature		Date
Studen	t Signature		Date

PA In-Demand Occupations List (PA IDOL)
Industry-Recognized Credential Resource Guide