

**COMPETENCY MODEL FOR  
CARPENTER  
CLASS CODE 3344**

The following competencies have been identified as those that best separate superior from satisfactory job performance in the class of **CARPENTER**. (Numbers refers to the order of competencies in the Competency Bank.)

1. Reading Comprehension
2. Mathematics
7. Self Management
8. Safety Focus
10. Physical Capability
20. Job Knowledge
24. Mechanical Aptitude
35. Teamwork
43. Follow Oral Directions

On the following pages are descriptions of each competency, including a definition, the level of the competency required for the class (*italicized*, **bolded**, and underlined), examples of behavioral indicators, and satisfactory and superior performance levels.

**1. READING COMPREHENSION** – Comprehends and correctly applies information presented in written form. Makes correct inferences; draws accurate conclusions.

Level of Competency Required by Job:

Level 1: Concrete, specific job-related information (work orders; instructions; material/equipment labels)

**Level 2: General information related to field of work and assignments; (articles in trade publications; technical/instructional manuals; memos; letters; e-mails; reports)**

Level 3: Abstract/complex information (highly technical articles/ reports in specialized area; legal or other regulatory material)

Examples of Behavioral Indicators:

- Follows written instructions correctly.
- Learns information presented in writing.
- Identifies relevant written information.
- Interprets written legal regulatory material accurately.

Performance Levels:

Satisfactory

Reads instructions correctly. Learns from manual and other printed material.

Superior

Learns from manual and may answer others' questions. Explains information presented in written form to others.

## **Reading Comprehension Areas**

1. Knowledge of how to properly read and interpret blueprints and sketches, including commonly used symbols such as symbols for door and window types, exterior walls, fire-alarm, and plumbing, sufficient to repair and build fixtures and structures.
2. Knowledge of how to comprehend and apply information presented in various written formats, including technical manuals, detailed work orders, and instructions sufficient to efficiently complete various carpenter related installation and repair assignments.

**2. MATHEMATICS** – Performs arithmetic or higher-level mathematical computations accurately.

Level of Competency Required by Job:

Level 1: Perform arithmetic computations (add, subtract, multiply, divide, ratios, percentages)

**Level 2: Use algebra (substitute numbers for letters in a formula), geometry (angles, distances, area), and/or descriptive statistics (mean/median/mode, standard deviation, range).**

Level 3: Apply and interpret calculus, inferential statistics (t-tests, correlations, ANOVA, multiple regression) or other very high level mathematics.

Examples of Behavioral Indicators:

- Quickly and accurately performs arithmetic computations.
- Appropriately selects and applies formulas for stated purpose.
- Correctly identifies an appropriate analysis for a specific purpose and selects the appropriate computer program for computation.
- Accurately interprets and presents results of mathematical/statistical computations..

Performance Levels:

Satisfactory

Knows mathematical requirements of the job and performs them correctly. Verifies work to ensure accuracy.

Superior

Identifies additional opportunities for the application of mathematics in work. Answers questions/trains others to assist them in their use of mathematics.

7. **SELF MANAGEMENT** – Organizes and plans for task accomplishment; manages time and works diligently to complete assigned work/fulfill responsibilities.

Level of Competency Required by Job:

Level 1: Order tasks for efficient performance; maintain awareness of time allotted and deadlines in order to ensure they are met.

**Level 2: Plan and perform work in a way that maximizes efficient performance; establish and adjust priorities to ensure timely completion of most critical assignments.**

Level 3: Allot time to responsibilities proportional to their prominence, priority, and impact.

Examples of Behavioral Indicators:

- Performs only work activities during work hours.
- Alters means of performing work when original approach proves to waste time.
- Keeps a “to do” list (with indication of priority and deadlines, if necessary).
- Requests assistance as necessary when it becomes clear that work will not be completed on time.
- Demonstrates a record of progress with respect to all assignments/responsibilities.
- Uses optimal means of communication for efficiency and effectiveness.

Performance Levels:

Satisfactory

Conducts self while at work in a manner that ensures work will be completed as scheduled, or provides explanation or secures assistance or adjustment of schedule if it will not be.

Superior

Seeks efficiencies in doing work to maximize productivity. Plans work carefully and follows the plan or makes adjustments if it is disrupted. Maintains personal responsibility for all work accomplishment.

**8. SAFETY FOCUS** – Performs work in a way that minimizes risk of injury to self or others.

Level of Competency Required by Job:

Level 1: Maintain awareness of unsafe conditions and actions to avoid injury.

Level 2: Follow safety rules/procedures; avoid known hazards in the work environment.

**Level 3: Carefully follow safety rules and procedures and consistently use all necessary safety equipment.**

Examples of Behavioral Indicators:

- Wears seat belt.
- Ensures safe physical work environment by taking actions such as eliminating unstable stacks of materials, closing drawers so filing cabinets will not tip over, and keeping pathways clear of tripping hazards.
- Reviews safety procedures before beginning each job with known hazards.
- Follows safety procedures while performing work even when it takes more time.
- Uses safety equipment such as goggles, gloves, and earplugs as required or warranted.
- Frequently checks safety equipment for proper condition and operation.

Performance Levels:

Satisfactory

Maintains awareness of personal safety to avoid injury or property damage during all work activities.

Superior

“Safety first.” Places avoidance of injury or property damage above all other job requirements. Mentions the need to follow safe work practices to co-workers. Actively seeks ways to avoid injury.

## **Safety Focus Areas**

1. Knowledge of Cal/OSHA and general safety procedures and the safe operation of equipment used in Carpentry, such as the proper personal protective equipment (PPE) to use, the safe use of tools and equipment, ladder safety, appropriate lifting and carrying techniques, and confined space protocols, sufficient to ensure the safety of oneself and others and to ensure compliance with Departmental and State rules and regulations.
2. Knowledge of traffic control procedures and equipment, such as the use of flaggers, work zone layouts for temporary road, lane, or shoulder closures, and proper hand signal usage, sufficient to ensure the safety of oneself and others in work areas in and around traffic.
3. Knowledge of the Los Angeles Department of Building and Safety Codes, such as stairwell requirement codes, and Fire, Life, and Safety Codes, sufficient to ensure that structures are repaired and constructed in a manner consistent with applicable safety codes.
4. Knowledge of State and Federal accessibility regulations, including Americans with Disabilities Act (ADA) Title 24 codes, sufficient to ensure structures are built and repaired in compliance with the requirements of the Americans with Disabilities Act and State statutes.
5. Knowledge of the state safety requirements related to scaffolding, such as the use of safety equipment including, harnesses, lanyards, and life lines, proper placement and construction, and the use of a competent person, sufficient to prevent fall injuries while performing carpentry related work at elevated heights.
6. Knowledge of state safety requirements for trenching and shoring, such as ensuring proper depth and properly installing support beams, sufficient to prevent injury to oneself and others.

## 10. PHYSICAL CAPABILITY – Strength, endurance, flexibility, and/or coordination.

### Level of Competency Required by Job:

Level 1: Sitting and/or standing for extended periods of time.

**Level 2: Awkward body position and/or precise motions required; and/or repeated lifting, carrying, and/or manipulation of objects; and/or walking for extended periods of time.**

Level 3: Continuous or extreme exertion of physical effort.

### Examples of Behavioral Indicators:

- Sits and may occasionally stand or walk for entire workday (except breaks).
- Walks for the duration of the workday.
- Repetitive motion required to perform task.
- Repeatedly lifts and carries heavy objects.
- Exerts maximal effort for extended periods of time

### Performance Levels:

#### Satisfactory

Performs tasks requiring physical capability satisfactorily and without undue physical stress or harm.

#### Superior

Performs tasks requiring physical capability correctly with relative ease. May be asked to perform the most physically demanding tasks or be sought by co-workers for assistance.



**20. JOB KNOWLEDGE** – Knows information required to perform a specific job. Includes both widely available courses of study (for example, chemistry, human resources management, graphic arts) and City-specific information (parking regulation and ticketing practices; purchasing procedures; provisions of the City Charter).

Level of Competency Required by Job:

Level 1: Knowledge is concrete, factual, and/or procedural and may be defined by the organization. Situations in which it is applied are quite consistent.

**Level 2: Knowledge is substantive and may be defined by an external trade, field, or profession. Situations in which it is applied vary and, as such, require breadth and depth of understanding.**

Level 3: Knowledge is abstract, conceptual, and/or complex and may be supported by a well-defined academic discipline or authoritative sources (e.g., laws, ordinances, government guidelines/regulations/codes). Situations in which it is applied may vary greatly or be novel.

Examples of Behavioral Indicators:

- Performs work correctly/avoids technical (job content related) errors.
- Answers technical questions about work accurately.
- Asks few technical questions about the performance of routine work activities.
- Offers advice (“coaching”) to new employees regarding their work.
- Develops training programs for other employees.
- Sought out as a source of information by others.

Performance Levels:

Satisfactory

Sufficient job knowledge to perform work correctly independently. Answers technical questions about work correctly.

Superior

Expertise in technical job information sufficient to serve as a resource to others. May develop training manuals/programs and/or give internal and/or external presentations related to work.

## **Job Knowledge Areas**

1. Knowledge of portable hand tools and stationary power tools used in the field of carpentry, such as framing squares, hand planes, chisels, hand saws, hammers, cod nippers, hand lines, levels, scribes, straight edges, dividers, routers, butt hinge templates, lock jigs, shapers, grinders, power saws, screw guns, drill motors, nail guns, and sanders, sufficient to safely and effectively repair and build fixtures and structures.
2. Knowledge of the proper care and maintenance of saws and other woodworking tools, such as replacing and adjusting blades, sufficient to ensure that tools are maintained in proper working order.
3. Knowledge of the methods and equipment used to repair and build chain link fences, such as fence stretchers and hand levels, sufficient to repair and construct chain link fences.
4. Knowledge of the component parts of wood and chain link fences and gates, such as posts, rails, hinges, and braces sufficient to construct and maintain fences.
5. Knowledge of various wood types used in carpentry, such as maple, oak, birch, mahogany, treated and synthetic lumber, and hard and soft wood, sufficient to identify and use the proper type of wood for carpentry projects and work.
6. Knowledge of terminology commonly used in carpentry, such as aprons, curb ramp, king studs, mudsill, dovetail joint, joinery, and birds mouth.
7. Knowledge of how to draw rough sketches sufficient to illustrate materials, fixtures and structures that need to be repaired or built.
8. Knowledge of joints, hardware, and parts used in the installation of doors, windows, sashes, cabinets and frames, such as rabbet, dovetail, lap, and butt joints, hinges, locks, window sills, headers, door knobs, closers, weather stripping, pulls, and glides, sufficient to install and maintain facility structures and fixtures in working order.
9. Knowledge of glues and plastic laminates used in building and repairing cabinets, such as wood glues, resin glue, exterior glue, and contact cement, sufficient to build and repair cabinets.
10. Knowledge of the proper procedures for assembling scaffolds, such as placing it in the correct location, determining the appropriate size and height, and proper ladder placement and decking, sufficient to safely assemble the structure for use for work at elevated heights.
11. Knowledge of shoring methods and procedures, such as framing members and identifying the proper depth, sufficient to safely support trenches.

12. Knowledge of how to use builder's and laser levels sufficient to layout proper elevations for foundations and curb and gutter installations.
13. Knowledge of adhesives used for various types of floors and ceilings, such as polymer and elastic glue, and tile mastic, sufficient to install and repair floors and ceilings.
14. Knowledge of the various types of suspended ceiling components, such as main-runners, intermediate tracks, cross tees, earthquake ties, and compression posts, sufficient to repair and install ceilings.
15. Knowledge of the proper methods to layout tile floors and ceilings, such as finding the center of the room, measuring to determine the cut pieces, and marking the center and working outward, sufficient to ensure that the floors and ceilings are properly repaired or installed.
16. Knowledge of the use of heavy timber construction in carpentry, such as timber used in shoring, decking, and structural beams, sufficient to support the weight of the structure.
17. Knowledge of connectors and fasteners used for heavy construction, such as beam hangers, joist hangers, and post anchors, sufficient to construct a wall or building.
18. Knowledge of the methods and techniques used to pitch roofs, such as correctly calculating the slope, selecting the appropriate roofing framing materials, and properly building and placing rafters and trusses, sufficient to properly construct roofs for various weather elements.
19. Knowledge of how to construct footings, such as determining the proper depth and width, interpreting survey markings and offsets, and determining the elevation and form, sufficient to perform curb and gutter work for streets and to construct buildings.
20. Knowledge of how to install steel stud framing for walls, sufficient to frame or repair walls in commercial buildings.
21. Knowledge of the Los Angeles Department of Building and Safety Codes, L.A. City Standard Plans, Greenbook Specifications, Type V Sheets, and ADA Title 24 codes as each applies to carpentry during construction and maintenance of buildings sufficient to ensure compliance with applicable codes.

**24. MECHANICAL APTITUDE** – Accurately predicts the impact of forces on objects and assesses the behavior of other physical phenomena (e.g., volume, weight, velocity). Readily learns work involving the application of mechanical principles.

Level of Competency Required by Job:

Level 1: Maintain a safe work environment by ensuring objects in it are stable, tools and equipment are properly used.

**Level 2: Know the physical properties of objects in the work environment and correctly anticipate the action of forces upon them; performs work accordingly (correctly and safely).**

Level 3: In-depth understanding of mechanical and physical phenomena sufficient to design and/or oversee the construction of systems.

Examples of Behavioral Indicators:

- Recognizes the impact of an earthquake on objects in the work environment and re-arranges them as possible to avoid possible damage or destruction and potential to cause injury.
- Uses tools properly to accomplish work correctly and safely.
- Recognizes the effects of various actions on objects and performs only those actions that will accomplish intended result and will not cause property damage or injury.
- Systems designed and/or for which construction is overseen operate as intended upon completion.

Performance Levels:

Satisfactory

Recognizes the operation of mechanical/physical phenomena sufficient to readily learn and perform work of a mechanical nature.

Superior

Displays exceptional insight into the operation of mechanical phenomena, and makes correct inferences regarding it. Promptly and accurately troubleshoots problems.

**35. TEAMWORK** – Interacts effectively with others to achieve mutual objectives; readily offers assistance to others to facilitate their goal accomplishment.

Level of Competency Required by Job:

Level 1: Work effectively as a member of a work unit or project team. Readily offer assistance to others when they have too much work or have too little.

**Level 2: Work effectively as a team member in which different people have different roles/responsibilities and perspectives. Identify points for collaboration with co-workers; readily offer and request assistance.**

Level 3: Work effectively as a part of an interdependent team (your work gets done only if the work of the whole team is done; evaluation of team performance is more relevant than individual performance).

Examples of Behavioral Indicators:

- Discusses work-related matters with co-workers.
- Offers and requests assistance readily.
- Offers and is receptive to suggestions.
- Identifies problems with workflow that will prevent team from accomplishing its goals.  
Provides constructive criticism and feedback to team members to improve overall functioning of team.  
Assigns credit to team for accomplishments.

Performance Levels:

Satisfactory

Cooperates with co-workers and fulfills responsibilities as a member of a project team. Maintains a focus on common objectives and offers and requests assistance readily.

Superior

Sees the team as a whole; acknowledges that performance of the team is what in reality is evaluated by others. If anyone fails, everyone on the team fails.

**43. FOLLOW ORAL DIRECTIONS** – Performs work accurately as directed orally.

Level of Competency Required by Job:

Level 1: Receive specific, complete oral directions daily or by individual task assignment throughout the day.

**Level 2: Receive general instructions orally that span across days or for entire assignments.**

Level 3: Receive general instructions/assignments orally regarding longterm objectives/responsibilities.

Examples of Behavioral Indicators:

- Does work assigned orally properly and on time.
- Asks pertinent questions for clarification of assignments.
- Performs work correctly when instructions were given orally.
- Explains assignments to others who received the same instructions.
- Performs work in accordance with general outline provided orally.
- Correctly infers details of assignments given only in general terms.

Performance Levels:

Satisfactory

Properly performs work when concrete, specific instructions are given orally. Asks pertinent questions when parts of the instructions are unclear or omitted.

Superior

Properly performs work assigned orally. Answers questions or explains work to others. Correctly infers details or portions of instructions that were omitted.