

**COMPETENCY MODEL FOR**  
**STRUCTURAL ENGINEER**  
**CLASS CODE 7956**

The following competencies have been identified as those that best separate superior from satisfactory job performance in the class of **STRUCTURAL ENGINEER**.

- 3. Judgment and Decision Making
- 4. Analytical Ability
- 7. Self Management
- 20. Job Knowledge
- 28. Supervision
- 35. Teamwork
- 49. Project Management
- 53. Leadership

**3. JUDGMENT AND DECISION MAKING** – Accurately assesses situations, seeks new information if necessary, and applies all available information to reach sound conclusions/formulate effective response.

Level of Competency Required by Job:

Level 1: Training and guidelines needed to respond to immediate situations within very specific function are provided (or supervisor available to assist).

Level 2: General information and guidance to assist in responding to a variety of situations across a range of circumstances are provided.

Level 3: *Little guidance available for responding to a wide range of complex situations with far-reaching and/or enduring consequences.*

Examples of Behavioral Indicators:

- Effectively responds to atypical situations.
- Asks questions or otherwise obtains additional relevant information to make a decision.
- Formulates a decision and necessary actions based on available facts.
- Correctly infers appropriate response based on information provided and existing policies, personal experience, and/or consultation with others.
- Discusses conclusions/possible responses with others before taking action as necessary.
- Considers impact of decisions on all affected parties.

Performance Levels:

Satisfactory

Correctly assesses routine and unusual situations and reaches appropriate conclusions for actions needed. Obtains additional information and/or consults with others as necessary.

Superior

Evaluates new situations accurately to establish an appropriate response or plan of action. Recognizes the impact on all affected parties, as well as the possible ramifications and/or repercussions of setting a precedent.

**4. ANALYTICAL ABILITY** – Identifies, obtains, and evaluates relevant information to establish relationships or patterns, cite causes, and reach logical conclusions.

Level of Competency Required by Job:

Level 1: Recognize similarities/differences in current situation to those previously encountered and is guided accordingly. Apply existing policies correctly. Ask pertinent questions or otherwise seek additional information to formulate appropriate response.

Level 2: Consider multiple, varied factors when evaluating a situation or issue. Seek additional information to provide further insight. Reach conclusions that logically follow from the information obtained.

Level 3: Consider a multitude of diverse factors, their interrelationships, the perspectives of others, alternative courses of action and their likely ramifications when evaluating information to reach a conclusion.

Examples of Behavioral Indicators:

- Obtains the necessary amount of relevant information.
- Recognizes the impact of each type of information on conclusions.
- Evaluates the quality/source of information when considering it.
- States the shortcomings of the information and, therefore, the analysis.

Performance Levels:

Satisfactory

Recognizes available relevant information, seeks additional information to consider, and reaches a conclusion. Provides sound, convincing justification for conclusions, citing relevant data and facts.

Superior

Uses a great deal of existing and obtained information and data to develop and evaluate alternatives and arrive at a final conclusion. Provides compelling arguments in support of conclusions.

**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.

**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 acquired after hire in a brief orientation, short training program, or through on-the-job training.

Level 2: Knowledge acquired through an apprenticeship or extensive training program, or long duration of job performance.

Level 3: Knowledge acquired through a prolonged external course of study and/or extensive training and experience within the City.

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.

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.

## STRUCTURAL ENGINEER JOB KNOWLEDGE AREAS

1. Knowledge of structural engineering methods and practices including recognized standards, as applied to structural designs for materials, such as steel, concrete, masonry and timber; preparation or checking of designs, plans, and specifications, and estimates for structures, such as buildings, bridges, marine structures, steam and hydroelectric generating plants, reservoirs and dams, and other structures.
2. Knowledge of structural, dynamic and static analysis, including lateral force resisting systems.
3. Knowledge of the applicable federal, State, and local codes and regulations relating to structural engineering, such as International Building Code (IBC), California Building Codes, American Association of Highway and Transportation Officials (AASHTO), City building codes and other applicable codes.
4. Knowledge of other engineering disciplines such as geology, seismology, and hydrology, as applied to structural engineering.
5. Knowledge of construction materials and practices in compliance with applicable federal, State, and local codes and regulations.

**28. SUPERVISION** – Ability to assume direct responsibility for all aspects of the performance of a work group, which requires knowledge and/or ability in the areas of:

- Planning and goal setting
- Creating a safe and positive work environment
- Establishing standards and training employees
- Motivating employees and teambuilding
- Performance Management (assigning, monitoring, facilitating, reviewing and evaluating work, and providing feedback)
- Supporting and developing employees through delegation and participation
- Taking disciplinary action including progressive discipline
- Provisions of employees' MOU's and handling grievances
- Legal requirements including EEO, ADA, FLSA, FMLA, and Workers' Compensation provisions
- Civil Service Commission Rules and Policies related to the management of employees
- Administrative Code provisions related to the management of employees
- Budget processes sufficient to request and justify expenditures in a correct and timely manner

Level of Competency Required by Job:

Level 1: Supervises small workgroup of employees performing the same or highly related work.

Level 2: Supervises a larger workgroup of employees performing various types of work.

Level 3: Supervises employees including provision of coaching and advice to subordinate supervisors.

Examples of Behavioral Indicators:

- Plans, assigns, and monitors work progress.
- Trains employees to do work.
- Evaluates work and gives positive and negative feedback.
- Displays knowledge of legal requirements including applicable Federal and State laws, Administrative Code provisions, Civil Service Commission Rules and Policies, and MOU provisions.

Performance Levels:

Satisfactory

Proficiency in supervision sufficient to supervise a workgroup in terms of task orientation, interpersonal concerns, and personnel administration.

Superior

Proficiency in supervision sufficient to serve as a resource to others and/or represent department position in a public forum.

**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.



**49. PROJECT MANAGEMENT** – Anticipates and plans for all aspects of a multi-faceted, discrete endeavor to ensure resources are available and actions are taken at proper times for successful completion.

Level of Competency Required by Job:

Level 1: Plan, coordinate, and oversee accomplishment of multi-step projects involving other employees.

Level 2: Design, plan, coordinate, and manage large, multi-faceted projects involving employees from various segments of the organization representing different perspectives.

Level 3: Design, plan, secure approval and resources, and manages large-scale, complex projects involving many employees representing a large number of diverse segments of the organization and perspectives, which may at times be in conflict.

Examples of Behavioral Indicators:

- Establishes project plans that gain management acceptance.
- Establishes realistic timeline and estimates of resources needed.
- Assembles appropriate team with complementary skills to efficiently execute all portions of a project.
- Secures necessary resources for successful project completion.
- Clearly designates roles/responsibilities/accountability.
- Addresses failure to perform or other problems in a timely and effective manner to minimize negative impact.

Performance Levels:

Satisfactory

Establishes acceptable project plan; assembles team with required skills; establishes personal responsibility/accountability. Ensures the necessary time and resources are available.

Superior

Designs efficient project plan to maximize benefits and minimize use of resources. Designates precise mix of people to best accomplish the project. Completes on time, with resources allocated.

### 53. LEADERSHIP – Influences others toward goal accomplishment.

#### Level of Competency Required by Job:

Level 1: Assume responsibility for operations or a situation when necessary. Direct the actions of others or otherwise ensure required actions are taken. Remain responsible until relieved or situation is resolved.

Level 2: Motivate others to continual activity focused on goal accomplishment. Provide clear objectives and articulate individual activities necessary to achieve them; ensure resources necessary to do so are available. Monitor work progress and provide feedback; assess results.

Level 3: Articulate a vision, convey it to others, and assign responsibilities (or assure they are assigned) for achieving it. Monitor progress, make adjustments as necessary, and evaluate results.

#### Examples of Behavioral Indicators:

- Evaluates circumstances, determining what needs to be done, and ensuring individual responsibility for performing specific actions is assigned.
- Follows-up to ensure that specific actions have been taken and overall objective has been accomplished.
- Clearly communicates objectives and responsibility/individual actions necessary to achieve them.
- Monitors work in progress, provides feedback to those involved, and makes adjustments to work plans/processes to ensure goal attainment.
- Evaluates completed work for quality, thoroughness, and effectiveness to determine whether re-work or additional work is required to meet intended objectives and to provide learning for future assignments

#### Performance Levels:

##### Satisfactory

Assumes responsibility for work of others when required or necessary. Ensures actions taken to achieve objectives, and evaluates results to determine any follow-up needed.

##### Superior

Articulates vision/states clear objectives and assigns responsibility/motivates others toward achievement. Monitors progress; gives feedback; evaluates results; ensures follow-up.

