Model Curriculum

QP Name: Project Soft-landing Executive

QP Code: CON/Q2106

Version: 1.0

NSQF Level: 4.5

Model Curriculum Version: 1.0

Construction Skill Development Council of India || Tower 4B, DLF Corporate Park, 201&, 202 4B, Mehrauli-Gurgaon Rd, DLF Phase 3, Gurugram, Haryana 122002

Table of Contents

Training Parameters

Sector	Construction
Sub-Sector	Real Estate and Infrastructure Construction
Occupation	Building Information Modeling (BIM)
Country	India
NSQF Level	4.5
Aligned to NCO/ISCO/ISIC Code	NCO-2015/2142.9900
Minimum Educational Qualification and Experience	Completed 1st year of UG OR Pursuing 1st year of UG and continuous education OR Pursuing 3rd year of 3-year diploma after 10th and continuous education OR Completed 3-year diploma after 10 OR Completed 2nd year of 2-year diploma after 12th OR Pursuing 2nd year of 2-year diploma after 12th and continuous education OR 10th grade pass plus 3 years of vocational education & Training OR Previous relevant Qualification of NSQF Level 3.5 and with minimum education as 8th Grade pass with 3-year Experience required OR Previous relevant Qualification of NSQF Level 4 and with minimum education as 8th Grade pass with 1.5-year Experience required
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years

Last Reviewed On	31/08/2023
Next Review Date	31/08/2026
NSQC Approval Date	31/08/2023
QP Version	1.0
Model Curriculum Creation Date	31/08/2023
Model Curriculum Valid Up to Date	31/08/2026
Model Curriculum Version	1.0
Minimum Duration of the Course	450 Hours
Maximum Duration of the Course	450 Hours

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills to:

- Elucidate ways to monitor and improve the building's performance.
- Explain the process of managing the building's handover to the client.
- Explain the importance of following health and safety practices at work.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
CON/N2118: Monitor and improve the building's performance **NOS Version- 1.0** **NSQF Level- 4.5**	**60:00**	**60:00**	**30:00**	**00:00**	**150:00**
Module 1: Introduction to the role of a Project Soft-Landing Executive	05:00	00:00	0:00	00:00	05:00
Module 2: Process of monitoring and improving the building's performance	55:00	60:00	30:00	00:00	145:00
CON/N2119: Manage the building's handover to the client **NOS Version- 1.0** **NSQF Level- 4.5**	**85:00**	**95:00**	**30:00**	**00:00**	**210:00**
Module 3: Process of managing the building's handover to the client	85:00	95:00	30:00	00:00	210:00
CON/N9004: Follow health and safety practices at work **NOS Version- 1.0** **NSQF Level- 4**	**05:00**	**25:00**	**0:00**	**00:00**	**30:00**
Module 4: Health and Safety at Work	05:00	25:00	0:00	00:00	30:00

DGT/VSQ/N0102: Employability Skills NOS Version- 1.0 NSQF Level- 4	**60:00**	**00:00s**	**0:00**	**00:00**	**60:00**
Module 5: Employability Skills	60:00	00:00	0:00	00:00	60:00
Total Duration	**210:00**	**180:00**	**60:00**	**00:00**	**450:00**

Module Details

Module 1: Introduction to the role of a Project Soft-Landing Executive
Mapped to CON/N2118, v1.0

Terminal Outcomes:

- Discuss the job role of a Project Soft-Landing Executive

Duration: 05:00	Duration: 0:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Describe the size and scope of the construction industry and its sub-sectors. - Discuss the role and responsibilities of a Project Soft-Landing Executive. - Identify various employment opportunities for a Project Soft-Landing Executive.	
Classroom Aids	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
NA	

Module 2: Process of Monitoring and Improving the Building's Performance
Mapped to CON/N2118, v1.0

Terminal Outcomes:

- Explain the process of preparing for the soft-landing project delivery.
- Elucidate ways to monitor the building's performance.
- Elucidate ways to improve the building's performance.

Duration: 55:00	Duration: 60:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Elucidate the meaning and process of BIM project soft-landing. - Explain the importance and benefits of BIM project soft-landing. - Explain the utilization of BIM soft-landing methodology to improve the performance of current and future assets. - Elucidate the interlink between BIM and soft-landing. - Explain the objectives of BIM project soft-landing, e.g. to maximize value and minimize waste in Architecture, Engineering, and Construction (AEC). - Explain the impact of soft-landing on the whole design, procurement, construction and commissioning process. - Explain the importance of focusing on operational performance outcomes in a BIM soft-landing project. - State different stages in BIM soft-landing projects. - Explain the importance of value engineering during the construction phase of a building.	- Demonstrate how to monitor the building's performance using the BIM software. - Show how to review the project, functional design brief and project specifications to assess performance and identify any ongoing design risks. - Demonstrate how to conduct post-occupancy evaluation of the building, monitoring the project outcomes. - Show how to monitor the building's energy consumption for various purposes, e.g. cooling and heating. - Demonstrate how to conduct reviews at appropriate intervals to ensure progress in the soft-landing project as planned and intended performance of the building.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	
Tools, Equipment and Other Requirements	
Revit, AutoCAD, Navisworks, Desktop/Laptop	

Module 3: Process of Managing the Building's Handover to the Client

Mapped to CON/N2119, v1.0

Terminal Outcomes:

- Explain the process of preparing for the building's handover.
- Elucidate ways to handover the building to the client.

Duration: 85:00	Duration: 95:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Explain the digital representation of physical and functional characteristics of a building using BIM. - Describe the applicable information management process and strategy that covers the whole lifecycle of a building. - Explain space and asset management using BIM. - Explain the implementation of disaster planning and response strategy using BIM. - Describe the process of planning a building's handover to the client. - List the applicable commissioning and testing requirements. - Explain the importance of applicable defects liability period and defect reporting procedure. - List the approvals/licenses waivers, consents and other documents to be submitted to the client during the handover. - Explain the use of BIM software for storing and sharing the relevant information. - Describe the process of a building's handover to the client. - Explain the importance of timely handover of building to the client.	- Demonstrate how to check and ensure testing and commissioning of the relevant building assets as per the approved procedures. - Show how to prepare the relevant documents in the required format, e.g. construction certificates for handover to the client/ asset owner. - Show how to check and obtain the necessary approvals for the as-built documentation, operations and maintenance manuals and required inspections. - Demonstrate how to use the appropriate BIM software for storing the relevant information in the building's digital model and sharing with the client. - Demonstrate the process of carrying out the building's handover after the final inspection. - Demonstrate how to maintain the appropriate documentation concerning the handover.
Classroom Aids	
Training Kit (Trainer Guide, Presentations). Whiteboard, Marker, Projector, Laptop	

Tools, Equipment and Other Requirements

Revit, AutoCAD, Navisworks, Desktop/Laptop

Module 4: Health and Safety at Work

Mapped to CON/N9004, v1.0

Terminal Outcomes:

- Explain the applicable practices to maintain health and safety at work.
- Discuss workplace emergency procedures.

Duration: 05:00	Duration: 25:00
Theory – Key Learning Outcomes	**Practical – Key Learning Outcomes**
- Discuss the regulations concerning workplace health and safety. - List the appropriate Personal Protective Equipment (PPE) to be used for workplace health and safety. - Discuss the appropriate practices to maintain hygiene at work. - Explain how to identify and mitigate potential hazards at work. - Discuss the importance of participating in safety drills at work. - Elaborate on the appropriate practices to be followed during workplace emergencies. - Explain the documentation requirements concerning workplace emergencies.	- Demonstrate the use of relevant PPE. - Show how to lift heavy items safely to prevent any injuries. - Demonstrate the use of appropriate emergency equipment, e.g. use of fire extinguishers for different types of fire. - Show how to administer first aid to injured or unwell personnel. - Demonstrate the relevant practices for effective waste management.
Classroom Aids:	
Training Kit - Trainer Guide, Presentations, Whiteboard, Marker, Projector, Laptop, Video Films	
Tools, Equipment and Other Requirements	
Safety Gloves, Face Mask, Soap/ Hand Sanitizer, Safety goggles, Fire extinguishers, Sand buckets, Fire prevention kit, First Aid box, Safety Tags, Safety Notice Board	

Module 5: Employability Skills

Mapped to DGT/VSQ/N0102, v1.0

Duration: 60:00
Key Learning Outcomes

Introduction to Employability Skills Duration: 1.5 Hours

After completing this programme, participants will be able to:

1. Discuss the Employability Skills required for jobs in various industries
2. List different learning and employability related GOI and private portals and their usage

Constitutional values - Citizenship Duration: 1.5 Hours

3. Explain the constitutional values, including civic rights and duties, citizenship, responsibility towards society and personal values and ethics such as honesty, integrity, caring and respecting others that are required to become a responsible citizen
4. Show how to practice different environmentally sustainable practices.

Becoming a Professional in the 21st Century Duration: 2.5 Hours

5. Discuss the importance of relevant 21st-century skills.
6. Exhibit 21st-century skills like Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn etc. in personal or professional life.
7. Describe the benefits of continuous learning.

Basic English Skills Duration: 10 Hours

8. Show how to use basic English sentences for everyday conversation in different contexts, in person and over the telephone
9. Read and interpret text written in basic English
10. Write a short note/paragraph / letter/e -mail using basic English

Career Development & Goal Setting Duration: 2 Hours

11. Create a career development plan with well-defined short- and long-term goals

Communication Skills Duration: 5 Hours

12. Demonstrate how to communicate effectively using verbal and nonverbal communication etiquette.
13. Explain the importance of active listening for effective communication
14. Discuss the significance of working collaboratively with others in a team

Diversity & Inclusion Duration: 2.5 Hours

15. Demonstrate how to behave, communicate, and conduct oneself appropriately with all genders and PwD
16. Discuss the significance of escalating sexual harassment issues as per POSH act.

Financial and Legal Literacy Duration:5 Hours

17. Outline the importance of selecting the right financial institution, product, and service
18. Demonstrate how to carry out offline and online financial transactions, safely and securely
19. List the common components of salary and compute income, expenditure, taxes,

investments etc.
20. Discuss the legal rights, laws, and aids

Essential Digital Skills Duration: 10 Hours
21. Describe the role of digital technology in today's life
22. Demonstrate how to operate digital devices and use the associated applications and features, safely and securely
23. Discuss the significance of displaying responsible online behavior while browsing, using various social media platforms, e-mails, etc., safely and securely
24. Create sample word documents, excel sheets and presentations using basic features
25. utilize virtual collaboration tools to work effectively

Entrepreneurship Duration: 7 Hours
26. Explain the types of entrepreneurship and enterprises
27. Discuss how to identify opportunities for potential business, sources of funding and associated financial and legal risks with its mitigation plan
28. Describe the 4Ps of Marketing-Product, Price, Place and Promotion and apply them as per requirement
29. Create a sample business plan, for the selected business opportunity

Customer Service Duration: 5 Hours
30. Describe the significance of analyzing different types and needs of customers
31. Explain the significance of identifying customer needs and responding to them in a professional manner.
32. Discuss the significance of maintaining hygiene and dressing appropriately

Getting Ready for apprenticeship & Jobs Duration: 8 Hours
33. Create a professional Curriculum Vitae (CV)
34. Use various offline and online job search sources such as employment exchanges, recruitment agencies, and job portals respectively
35. Discuss the significance of maintaining hygiene and confidence during an interview
36. Perform a mock interview
37. List the steps for searching and registering for apprenticeship opportunities

On-the-Job Training

Mapped to Project Soft-Landing Executive

Mandatory Duration: 60:00	Recommended Duration: 00:00
Location: On-Site	

Terminal Outcomes

- Elucidate the meaning and process of BIM project soft-landing.
- Explain the importance and benefits of BIM project soft-landing.
- Monitor the building's performance using the BIM software.
- Conduct post-occupancy evaluation of the building, monitoring the project outcomes.
- Monitor the building's energy consumption for various purposes, e.g. cooling and heating.
- Prepare the relevant documents in the required format, e.g. construction certificates for handover to the client/ asset owner.
- Check and install all safety equipment as per standard guidelines.

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	**Specialization**	**Relevant Industry Experience**		**Training Experience**		**Remarks**
		Years	*Specialization*	*Years*	*Specialization*	
ITI/12th	Any domain	7	Building information modelling (BIM)	0	-	
Diploma in Engineering	Civil Engineering/ Mechanical Engineering/ Manufacturing/ Mathematics/ Physics degree	5	Building information modelling (BIM)	0	-	
Graduate	Civil Engineering/ Mechanical Engineering	3	Building information modelling (BIM)	0	-	

Trainer Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "Project Soft-Landing Executive", mapped to QP: "CON/Q2106, v1.0", Minimum accepted score is 80%	Recommended that the Trainer is certified for the Job Role: "Trainer (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2601, v2.0". The minimum accepted score as per MEPSC guidelines is 80%.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
ITI/12th	Any domain	8	Building information modelling (BIM)	0	-	
Diploma in Engineering	Civil Engineering/ Mechanical Engineering/ Manufacturing/ Mathematics/ Physics degree	6	Building information modelling (BIM)	0	-	
Graduate	Civil Engineering/ Mechanical Engineering	3	Building information modelling (BIM)	0	-	

Assessor Certification	
Domain Certification	**Platform Certification**
Certified for Job Role "Project Soft-Landing Executive", mapped to QP: "CON/Q2106, v1.0", Minimum accepted score is 80%	Certified for the Job Role: "Assessor (Vet and Skills)", mapped to the Qualification Pack: "MEP/Q2701, v2.0", with a minimum score of 80%.

Assessment Strategy

This section includes the processes involved in identifying, gathering, and interpreting information to evaluate the Candidate on the required competencies of the program.

1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SIP
- The batch allocation Matrix prepared for each month based on previous months' performance of AAs, which determines the quantum of Assessment which can be allocated to each AA for a month
- Post allocation of assessment, Assessment agencies send the assessment confirmation to SSC
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- SSC monitors the assessment process.

2. Testing Environment:

- A combination of Theory and practical/demonstration test is deployed to assess knowledge and Skill respectively of Learners.
- Assessment is conducted at Training center in in-person/offline mode
- For Skill assessment, environment is simulated to create a realistic Working Environment that should replicate the key features of the workplace. In job roles, where it is difficult to replicate the same, the OJT assessment is implemented.
- During the practical task, trainees are assessed on their workmanship, quality of finished product, time management, etc., based on the performance criteria (PC), knowledge and understanding and their professional and soft skills as specified in the qualification pack.
- Knowledge assessment is done through closed ended questions up to level 4 and from level 5 onwards, it is mixture of open ended and closed ended questions

3. Assessment Quality Assurance levels/Framework

- Assessment criteria is developed for each QP which acts as a guide for developing question set /banks
- Sample questions aligned with Assessment criteria for each QP are developed by SSC and validated by industry
- Taking reference of Assessment criteria and Sample Questions, AAs create the question bank which is further validated by SSC
- Questions are mapped to the specified assessment criteria
- It is mandatory that Assessor and Trainer must be ToA certified & ToT Certified respectively
- Continuous Monitoring through virtual and In-person mode are conducted to ensure the assessment is conducted as per stipulated process
- Process and Technical audit of assessment batches by quality team are conducted to avoid the errors in assessment process

- A well -defined comprehensive framework of NON-COMPLIANCE MATRIX is defined and implemented to identify the non-compliance made by assessor and AA and punitive actions are taken correspondingly.
- The capacity building sessions are conducted regularly for assessors and assessment agencies to update them about best practices in assessment

4. Types of evidence or evidence-gathering protocol:

- Post Assessment, the evidences are uploaded by Assessor to assessment agency and further assessment agency to SSC as per stipulated TAT
- Evidences are broadly the photographic and video graphic in nature
- Assessment agencies upload the evidence on SIP and detailed evidence on SSC digital platform (ZoHO)
- Evidences are; NOS wise-Geotagged photographs and videos of Theory Test &Practical Tasks, Attendance sheet, result summary sheet, group photographs.

5. Method of verification or validation:

- The process and technical audit of assessment batches are done by SSC
- Attendance of each candidate is verified and it is ensured that only those candidates are assessed by assessors who are meeting the stipulated minimum percentage of attendance
- The result of each candidate is verified, it is verified that that result on SIP are matching with respect to summary sheet submitted by AAs
- Under detailed technical audit for sample of batches, the knowledge and skill assessment results for each candidate is checked in technical aspect.
- All the evidences of batches are preserved on server of SSC digital platform

On the Job:

- On job training (OJT), candidates undergo training and leaning at actual workplace for a fixed period of time and a certain weightage of assessment is allocated out of total skill weightage of Qualification Pack for undergoing OJT as stipulated by CSDCI. This OJT score and assessors' end point score are combined to arrive at final Marking/grading of trainees' skill test. The OJT score is determined by Supervisor of company under which candidates undergo on job training.

Acronyms and Abbreviations

Term	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards
CSDCI	Construction Skill development Council of India
MCQ	Multiple Choice Question
EHS	Environment Health and Safety