



QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR CONSTRUCTION INDUSTRY

What are Occupational Standards(OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

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Introduction

Qualifications Pack – Draughtsman

SECTOR: CONSTRUCTION

SUB-SECTOR: Real Estate and Infrastructure Construction

OCCUPATION: DRAUGHTING

REFERENCE ID: CON/Q1301

ALIGNED TO: NCO-2004/3118.20

This job role prepares different types of engineering drawings from available design data within specified time frame using CAD.

Brief Job Description: This job role is responsible for preparation, correction and documentation of all types of drawings prepared for construction and erection works, showing all relevant plans, sections, elevations and details along with other requirements as applicable based on the type of drawing.

Personal Attributes: The individual should be physically fit and mentally alert and safety conscious. The person must be able to perform efficiently within a team, and work responsibly.

Job Details	Qualifications Pack Code	CON/Q1301		
	Job Role	Draughtsman		
	Credits (NSQF)	TBD	Version number	1.0
	Sector	Construction	Drafted on	07/08/2015
	Sub-sector	Real Estate and Infrastructure Construction	Last reviewed on	23/08/2015
	Occupation	Draughting	Next review date	23/08/2017
	NSQC Clearance on	NA		

Job Role	Draughtsman
Role Description	The job role is responsible for preparation, correction and documentation of all types of drawings prepared for construction and erection works, showing all relevant plans, sections, elevations and details along with other requirements as applicable based on the type of drawing.
NSQF level	4
Minimum Educational Qualifications	ITI/Diploma Civil
Maximum Educational Qualifications	N.A
Training (Suggested but not mandatory)	Recommended training period of 16-20 weeks as per QP of Draughtsman Recommended training in basic computer literacy and communication
Minimum Job Entry Age	18 years
Experience	Desirable: 1. Non trained worker : 12 years site experience in same occupation
Applicable National Occupational Standards (NOS)	Compulsory: <ol style="list-style-type: none"> CON/N1301: Carry out the initial setup and understand the requirement for preparation of drawings CON/N1302: Prepare 2 dimensional civil drawings using computer aided design (CAD) system CON/N8001: Work effectively in a team to deliver desired results at the workplace CON/N8002: Plan and organize work to meet expected outcomes Optional: N.A.
Performance Criteria	As described in the relevant OS units

Definitions	Keywords / Terms	Description
	Sector	Sector is conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
	Sub-Sector	Sub-Sector is derived from a further breakdown based on the characteristics and interests of its components
	Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry
	Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
	Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet the standard consistently. Occupational Standards are applicable both in the Indian contexts.
	Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
	Qualifications Pack (QP)	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualification Pack is assigned a unique qualification pack code
	Qualification Pack Code	Qualification Pack Code is a unique reference code that identifies a qualifications pack.
	National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context.
	Scope	Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.
	Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard
	Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
	Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills / Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.	
Acronyms	Keywords /Terms	Description
	CON	Construction
	NSQF	National Skill Qualifications Framework
	QP	Qualification Pack
	OS	Occupational Standards
	TBD	To Be Decided

CON/N1301
drawings

Carry out the initial setup and understand the requirement for preparation of

National Occupational Standard



Overview

This NOS covers the skills and knowledge required by a workman to be proficient in carrying out the initial setup and understand the requirement for preparation of drawings.

CON/N1301 Carry out the initial setup and understand the requirement for preparation of drawings

National Occupational Standard	Unit Code	CON/N1301
	Unit Title (Task)	Carry out the initial setup and understand the requirement for preparation of drawings
	Description	This unit describes the skills and knowledge required to carry out the initial setup and understand the requirement for preparation of drawings.
	Scope	The scope covers the following: <ul style="list-style-type: none"> Carry out the initial setup and understand the requirement for preparation of drawings
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Carry out the initial setup and understand the requirement for preparation of drawings	<p>To be competent, the user / individual on the job must be able to:</p> <p>PC1. ensure data and information received are sufficient for preparation of drawing</p> <p>PC2. read and interpret the drawing requirements such as rough sketches, specifications, drawing brief, RFD etc. provided by the designer or architect</p> <p>PC3. prepare rough sketches from the drawing requirements</p> <p>PC4. consult superiors or concerned authority in case of any confusion or ambiguity in the received drawing requirements or for clarification of any doubts</p> <p>PC5. interpret drawing requirement such as type of projections, types of views etc.</p> <p>PC6. estimate the time required to complete the drawing based upon the scope</p> <p>PC7. ensure that computer system is correctly operating</p> <p>PC8. check that all required peripheral devices are connected and correctly operating</p> <p>PC9. start up the software and adjust the page size, measurement unit, scale and plot area before starting the work</p> <p>PC10. set drawing parameters like, colour, layer, line type, line weight, text font etc.</p> <p>PC11. prepare title block for the drawing covering specification required by the client or mentioned in the IS code</p>
	Knowledge and Understanding (K)	
	A. Organizational Context (Knowledge of the company / organization and	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> KA1. standard practices for draughting works KA2. service request procedures for tools, materials and equipments KA3. statutory compliance requirements at the workplace

CON/N1301 Carry out the initial setup and understand the requirement for preparation of drawings

its processes)	
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. how to operate a computer</p> <p>KB2. different types of plotters and printers and their operation</p> <p>KB3. different types of papers, their sizes, thickness and area of application</p> <p>KB4. various commands, functions and their shortcuts that are required for preparation of drawing</p> <p>KB5. correct procedure for consultation and information transfer</p> <p>KB6. complete knowledge of various Indian and international code of practice applicable to drawing</p> <p>KB7. different symbols and terms used in civil drawings, fabrication drawings, , landscaping and layout drawings</p> <p>KB8. arithmetic calculations</p> <p>KB9. how to interpret design parameters and other drawing requirements</p> <p>KB10. standard procedure for storing and maintaining documents</p> <p>KB11. how to access, recognize and use a wide range of standard components and symbol libraries from the cad equipment</p> <p>KB12. need for document control</p> <p>KB13. how to save and store drawings</p> <p>KB14. need to create backup copies, and to file them in a separate and safe location</p> <p>KB15. detailed drafting concepts</p> <p>KB16. how to accurately interpret and represent technical drawings and data</p> <p>KB17. methods and procedures used to minimize the chances of infecting a computer with a virus</p> <p>KB18. procedure to follow in case there are corruptions or virus attacks</p> <p>KB19. practices that make systems vulnerable to corruption and damage</p> <p>KB20. basic set-up and operation of the computer system, and the peripheral devices that are used</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. write in English, compose official mails and letters and prepare formats</p> <p>SA2. prepare status updates for the superiors in the prescribed format</p>
	Reading Skills

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drawings**

Carry out the initial setup and understand the requirement for preparation of

	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA3. read and understand English language, technical terms and common trade terminologies</p> <p>SA4. read drawing, specification and standards related to relevant work</p> <p>SA5. read key documents including quality standards, standards working methods & applicable tolerance limits</p>
	<p>Oral Communication (Listening and Speaking skills)</p>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA6. speak in English with proper articulation and have adequate vocabulary</p> <p>SA7. listen and follow instructions clearly given by the superior</p>
B. Professional Skills	<p>Decision Making</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. estimate the time requirement for completing the work</p> <p>SB2. decide alternate course of action in case of hindrance to work</p> <p>SB3. determine whether the system and peripheral devices are working correctly</p> <p>SB4. check for data sufficiency prior to drawing preparation</p>
	<p>Plan and Organise</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. plan work & organize required resource in coordination with team members and superior</p> <p>SB6. plan and prioritize the preparation of drawings as per requirement of site or client</p>
	<p>Customer centricity</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB7. ensure that the work executed is as per clients requirement and covers all the required details for proper execution of work</p> <p>SB8. ensure that the work is completed within estimated time frame and with required quality</p>
	<p>Problem solving</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB9. raise any doubts with superiors in order to seek clarity</p>
	<p>Analytical Thinking</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB10. optimize resources for draughting works</p> <p>SB11. analyze work requirements in order to prepare hand sketches</p>

CON/N1301 Carry out the initial setup and understand the requirement for preparation of drawings

	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB12. assess complexity of the tasks and provide guidance for carrying out corrective action as per requirement SB13. assess and evaluate the time required to complete the drawings



CON/N1301 Carry out the initial setup and understand the requirement for preparation of drawings

NOS Version Control

NOS Code	CON/N1301		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/08/2015
Industry Sub-sector	Real Estate and Infrastructure Construction	Last reviewed on	23/08/2015
Occupation	Draughting	Next review date	23/08/2017



CON/N1302 Prepare 2 dimensional civil drawings using computer aided design (CAD) system

National Occupational Standard



Overview

This NOS covers the skills and knowledge required by a workman to be proficient in preparing dimensional civil drawings using computer aided design (CAD) system.

CON/N1302 Prepare 2 dimensional civil drawings using computer aided design (CAD) system

National Occupational Standard

Unit Code	CON/N1302
Unit Title (Task)	Prepare dimensional civil drawings using computer aided design (CAD) system
Description	This unit describes the skills and knowledge required to prepare dimensional civil drawings using computer aided design (CAD) system.
Scope	The scope covers the creation and correction of 2 Dimensional Drawings that are used in all projects of construction across all sub sectors using CAD systems.
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Prepare 2D drawings including topographical maps, contours, civil and structural drawings, architectural drawings	<p>To be competent, the user / individual on the job must be able to:</p> <p>PC1. carry out necessary calculations to compute dimensions of various components/ parts of drawings</p> <p>PC2. convert the dimensions in required scale to input in system</p> <p>PC3. use drafting principles to produce cad drawings showing plans, sections, elevations, and different types of views</p> <p>PC4. use drafting principles to produce topographical maps, contours, civil and structural drawings, architectural drawings</p> <p>PC5. use appropriate commands in the software to draw the required drawings as per standard practices</p> <p>PC6. use keyboard commands and pull down menus available in common cad systems to prepare the drawings</p> <p>PC7. use codes and other references that follow the required conventions</p> <p>PC8. draw structures to highlight critical features in accordance with specification requirements</p> <p>PC9. draw civil assemblies to highlight critical features as per specification requirements</p> <p>PC10. create tables to denote the name, dimensions, perimeter and area of various parts or components as per client requirement</p> <p>PC11. add specifications as per the drawing requirements provided by the designer or architect</p> <p>PC12. use relevant and appropriate symbols as per drawing requirement to provide details in the drawings</p> <p>PC13. provide legend in the drawing sheet as per requirement</p> <p>PC14. provide sections and details as per requirement of client, designer or architect</p> <p>PC15. make appropriate denotations for continual and details on the drawing</p> <p>PC16. provide names to the drawings, sections and details as per code of practice or organizational norms</p> <p>PC17. recheck the drawings to confirm their compliance with the supplied design</p>

CON/N1302 Prepare 2 dimensional civil drawings using computer aided design (CAD) system

	<p>parameters</p> <p>PC18. correct or remake the drawings in case of any corrections observed by superiors</p> <p>PC19. coordinate with seniors for approval of drawing from design team and client as applicable</p> <p>PC20. communicate to concerned authorities for informing completion and approval of prepared drawings</p>
<p>Store and maintain produced drawings</p>	<p>PC21. draft mails and forward the prepared drawing to concerned authority for approval</p> <p>PC22. maintain documents for completion of work and approval of the same as per organizational norm</p> <p>PC23. store the drawings in appropriate partitions</p> <p>PC24. operate printers and plotters to obtain prints of the drawings</p> <p>PC25. produce hard copies of the drawings in required numbers</p>
<p>Knowledge and Understanding (K)</p>	
<p>A. Organizational Context (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. standard practices for draughting works</p> <p>KA2. service request procedures for tools, materials and equipments</p> <p>KA3. statutory compliance requirement related to the workplace</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. how to operate a computer</p> <p>KB2. various commands, functions and their shortcuts that are required for preparation of drawing</p> <p>KB3. correct procedure for consultation and information transfer</p> <p>KB4. complete knowledge of various Indian and International code of practice applicable to drawing</p> <p>KB5. different types of drawings, their requirements for execution and details they should cover</p> <p>KB6. different types of construction projects, their scope, types of drawings required in each</p> <p>KB7. different symbols and terms used in civil drawings, fabrication drawings, landscaping and layout drawings</p> <p>KB8. arithmetic calculations</p> <p>KB9. how to interpret design parameters and other drawing requirements</p> <p>KB10. how to access, recognize and use a wide range of standard components and symbol libraries from the cad equipment</p> <p>KB11. need for document control</p> <p>KB12. how to save and store drawings</p> <p>KB13. detailed drafting concepts</p>

CON/N1302 Prepare 2 dimensional civil drawings using computer aided design (CAD) system

	<p>KB14. how to accurately interpret and represent technical drawings and data</p> <p>KB15. basic understanding of concepts of civil engineering</p> <p>KB16. purpose of preparing drawings</p> <p>KB17. details to be covered as per Site requirements</p> <p>KB18. dimensions and positions, their representation, calculation</p> <p>KB19. checking the dimensions and accuracy of drawings</p> <p>KB20. different types of plotters and printers and their operation</p> <p>KB21. different types of papers, their sizes, thickness and area of application</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. write in English, compose official mails and letters and preparation formats</p> <p>SA2. prepare status updates for the superiors in the prescribed format</p>
	Reading Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA3. read and understand English language, technical terms and common trade terminologies</p> <p>SA4. read drawing, specification and standards related to relevant work</p> <p>SA5. read key documents including quality standards, standards working methods & applicable tolerance limits</p>
	Oral Communication (Listening and Speaking skills)
<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA6. speak in English with proper articulation and have adequate vocabulary</p> <p>SA7. listen and follow instructions clearly given by the superior</p>	
B. Professional Skills	Decision Making
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. decide alternate course of action in case of hindrance to work</p> <p>SB2. select appropriate commands in the software for completing the drawings as per the standards</p> <p>SB3. select appropriate symbols for meeting drawing requirements</p>
	Plan and Organise
<p>The user/individual on the job needs to know and understand how to:</p> <p>SB4. plan work & organize required resource in coordination with team members and superior</p> <p>SB5. plan and prioritize the preparation of drawings as per requirement of site or client</p>	

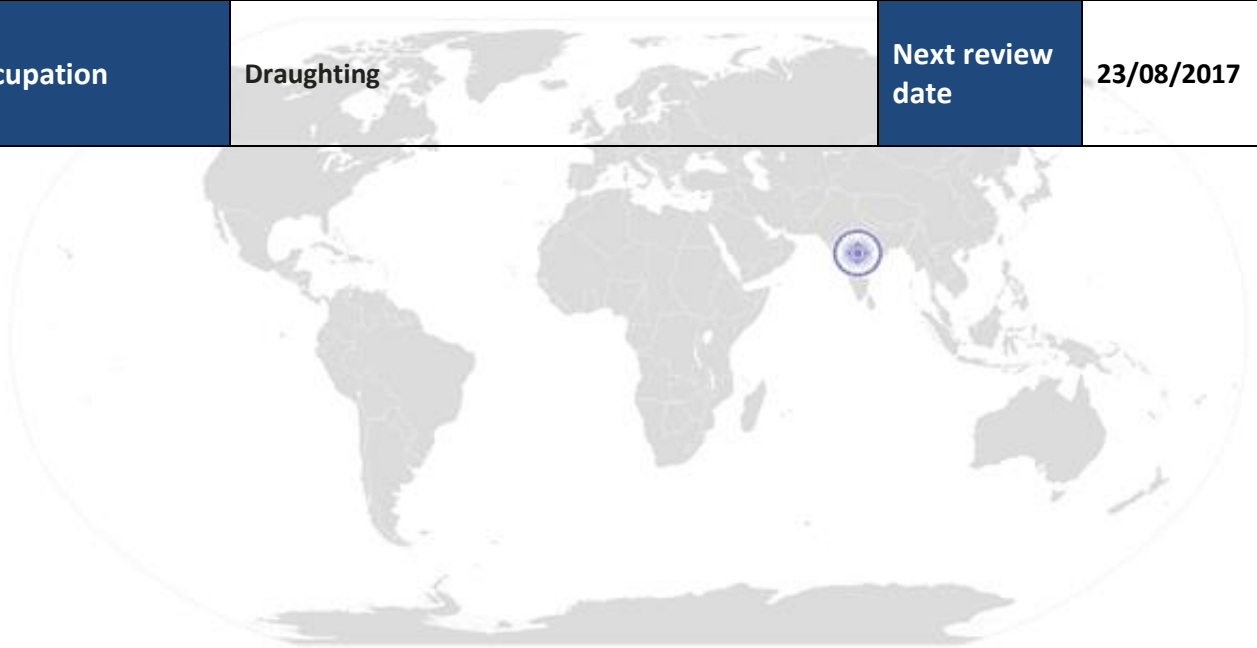
CON/N1302 Prepare 2 dimensional civil drawings using computer aided design (CAD) system

	Customer centricity
	The user/individual on the job needs to know and understand how to: SB6. ensure that the work executed is as per clients requirement and covers all the required details for proper execution of work SB7. ensure that the work is completed within estimated time frame and with required quality
	Problem solving
	The user/individual on the job needs to know and understand how to: SB8. resolve and solve any conflict within the team SB9. incorporate necessary corrections to the drawings, as applicable
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB10. compute dimensions for the drawing by carrying out necessary calculations SB11. assess and analyze critical features within the drawings
Critical Thinking	
The user/individual on the job needs to know and understand how to: SB12. assess complexity of the tasks and provide guidance for carrying out corrective action as per requirement SB13. evaluate whether the drawing is compliant with the supplied parameters	

CON/N1302 Prepare 2 dimensional civil drawings using computer aided design (CAD) system

NOS Version Control

NOS Code	CON/N1302		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/08/2015
Industry Sub-sector	Real Estate and Infrastructure Construction	Last reviewed on	23/08/2015
Occupation	Draughting	Next review date	23/08/2017



CON/N8001 Work effectively in a team to deliver desired results at the workplace.

National Occupational Standard



Overview

This NOS covers the skill and knowledge required to work effectively within a team to achieve the desired results.

CON/N8001 Work effectively in a team to deliver desired results at the workplace.

National Occupational Standard

Unit Code	CON/N8001
Unit Title (Task)	Work effectively in a team to deliver desired results at the workplace
Description	This unit describes the skills and knowledge required to work effectively within a team to achieve the desired results.
Scope	<p>The scope covers the following:</p> <ul style="list-style-type: none"> Interact and communicate effectively with co-workers, superiors and subordinates across different teams Support co-workers, superiors and subordinates within the team and across interfacing teams to ensure effective execution of assigned task
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Interact and communicate in effective and conclusive manner	<p>To be competent, the user / individual on the job must be able to:</p> <p>PC1. pass on work related information/ requirement clearly to the team members</p> <p>PC2. inform co-workers and superiors about any kind of deviations from work</p> <p>PC3. address the problems effectively and report if required to immediate supervisor appropriately</p> <p>PC4. receive instructions clearly from superiors and respond effectively on the same</p> <p>PC5. communicate to team members/subordinates for appropriate work technique and method</p> <p>PC6. seek clarification and advice as per the requirement and applicability</p>
Support co-workers to execute project requirements	<p>PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams</p> <p>PC8. work together with co-workers in a synchronized manner</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. own roles and responsibilities</p> <p>KA2. importance of effective communication and establishing strong working relationships with co-workers</p> <p>KA3. risks of a failure in teamwork in terms of effects on project outcomes, timelines, safety at the construction site, etc.</p> <p>KA4. different modes of communication, and its appropriate usage</p> <p>KA5. importance of creating healthy and cooperative work environment among the gangs of workers</p>

CON/N8001 Work effectively in a team to deliver desired results at the workplace.

<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. different activities within his work area where an interaction with other workers is required</p> <p>KB2. applicable techniques of work, properties of materials used, tools and tackles used, safety standards that co-workers might need as per the requirement</p> <p>KB3. importance of proper and effective communication and the expected adverse effects in case of failure relating to quality, timelines, safety, risks at the construction project site</p> <p>KB4. importance and need of supporting co-workers facing problems for smooth functioning of work</p>
<p>Skills (S)</p>	
<p>A. Core Skills/ Generic Skills</p>	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. write in one or more languages, preferably in the local language of the site</p> <p>Reading Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA2. read in one or more languages, preferably in the local language of the site</p> <p>SA3. read communication from team members regarding work completed, materials used, tools and tackles used, support required</p> <p>Oral Communication (Listening and Speaking skills)</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA4. speak in one or more languages, preferably in one of the local languages of the site</p> <p>SA5. listen and follow instructions / communication shared by superiors/ co-workers regarding team requirements or interfaces during work processes</p> <p>SA6. orally communicate with co-workers regarding support required to complete the respective work</p>
<p>B. Professional Skills</p>	<p>Decision Making</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. decide on what information is to be shared with co-workers within the team or from interfacing gang of workers</p> <p>Plan and Organise</p> <p>The user/individual on the job needs to know and understand how to:</p> <p>SB2. plan work and organize required resources in coordination with team members</p>

CON/N8001 Work effectively in a team to deliver desired results at the workplace.

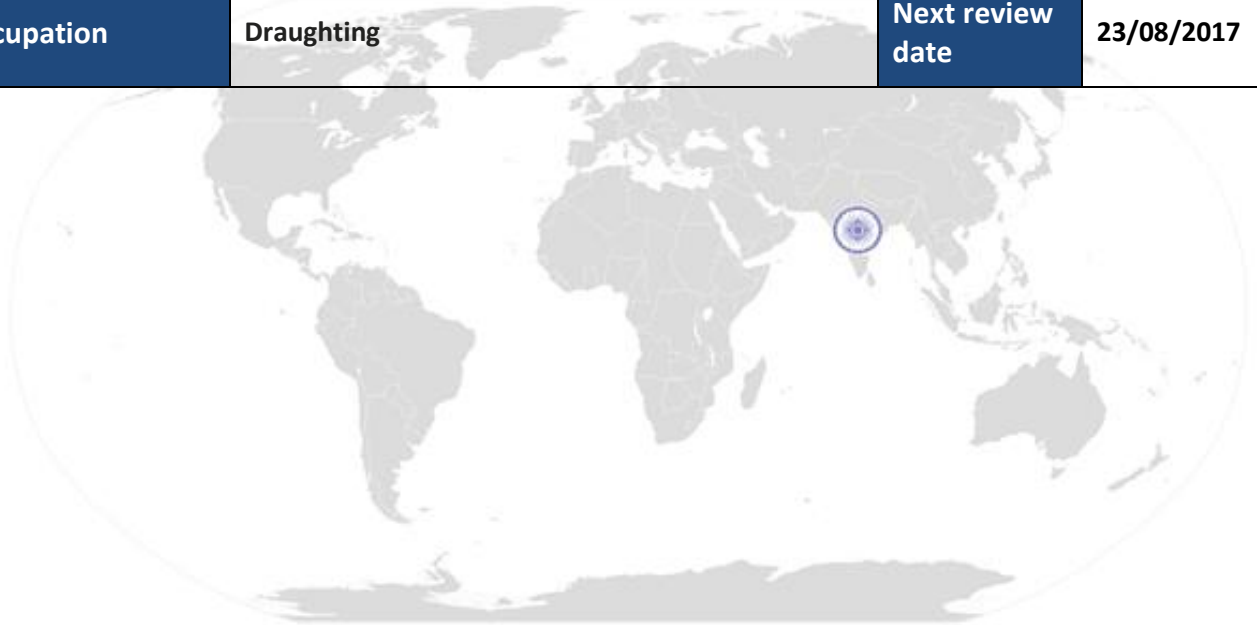
	Customer centricity
	The user/individual on the job needs to know and understand how to: SB3. complete all assigned task in coordination with team members
	Problem solving
	The user/individual on the job needs to know and understand how to: SB4. take initiative in resolving issues among co-workers or report the same to superiors
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB5. ensure best ways of coordination among team members SB6. communicate with co-workers considering their educational/social background
	Critical Thinking
The user/individual on the job needs to know and understand how to: SB7. evaluate the complexity of task and determine if any guidance is required from superiors	



CON/N8001 Work effectively in a team to deliver desired results at the workplace.

NOS Version Control

NOS Code	CON/N8001		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/08/2015
Industry Sub-sector	Real Estate and Infrastructure Construction	Last reviewed on	23/08/2015
Occupation	Draughting	Next review date	23/08/2017



National Occupational Standard



Overview

This NOS covers the skills and knowledge required to plan and organize work in order to meet expected quality in established time frame.

CON/N8002

Plan and organize work to meet expected outcomes

National Occupational Standard

Unit Code	CON/N8002
Unit Title (Task)	Plan and organize work to meet expected outcomes
Description	This unit describes the knowledge and the skills required for an individual to plan and organize own work in order to meet expected outcome.
Scope	This scope covers the following: <ul style="list-style-type: none"> • Prioritize work activities to achieve desired results • Organize desired resources prior to commencement of work
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Prioritize work activities to achieve desired results	To be competent, the user / individual on the job must be able to: PC1. understand clearly the targets and timelines set by superiors PC2. plan activities as per schedule and sequence PC3. provide guidance to the subordinates to obtain desired outcome PC4. plan housekeeping activities prior to and post completion of work
Organize desired resources prior to commencement of work	PC5. list and arrange required resources prior to commencement of work PC6. select and employ correct tools, tackles and equipment for completion of desired work PC7. complete the work with allocated resources PC8. engage allocated manpower in an appropriate manner PC9. use resources in an optimum manner to avoid any unnecessary wastage PC10. employ tools, tackles and equipment with care to avoid damage to the same PC11. organize work output, materials used, tools and tackles deployed, PC12. processes adopted to be in line with the specified standards and instructions
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. importance of proper housekeeping KA2. policies, procedures and work targets set by superiors KA3. roles and responsibilities in executing the work for subordinates and self
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. standard practices of work to be adopted for assigned task KB2. how to use available resources in a judicious and appropriate manner to minimize wastages or damage

CON/N8002

Plan and organize work to meet expected outcomes

Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. write in one or more language, preferably in the local language of the site SA1. list out the assigned works and targets
	Reading Skills
	The user/ individual on the job needs to know and understand how to: SA2. read in one or more language, preferably in the local language of the site SA3. read communication from co-workers, superiors and notices from other departments as per requirement of the level
	Oral Communication (Listening and Speaking skills)
	The user/ individual on the job needs to know and understand how to: SA4. speak in one or more language, preferably in one of the local language of the site SA5. listen and follow communication shared by co-workers regarding standard work processes, resources available, timelines, etc. SA6. communicate effectively with co-workers and subordinates
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to: SB1. decide on what sequence is to be adopted for execution of work
	Plan and Organise
	The user/individual on the job needs to know and understand how to: SB2. plan and organize the materials, tools, tackles and equipment required to execute the work
	Customer centricity
	The user/individual on the job needs to know and understand how to: SB3. complete all assigned task with proper planning and organizing
	Problem solving
	The user/individual on the job needs to know and understand how to: SB4. arrange or seek help to arrange for material, tools and tackles in case of shortfall
Analytical Thinking	

CON/N8002

Plan and organize work to meet expected outcomes

	The user/individual on the job needs to know and understand how to: SB5. analyze areas of work which could result in a delay of work, wastage of material or damage to tools and tackles
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB6. evaluate potential solutions to minimize avoidable delays and wastages at the construction site

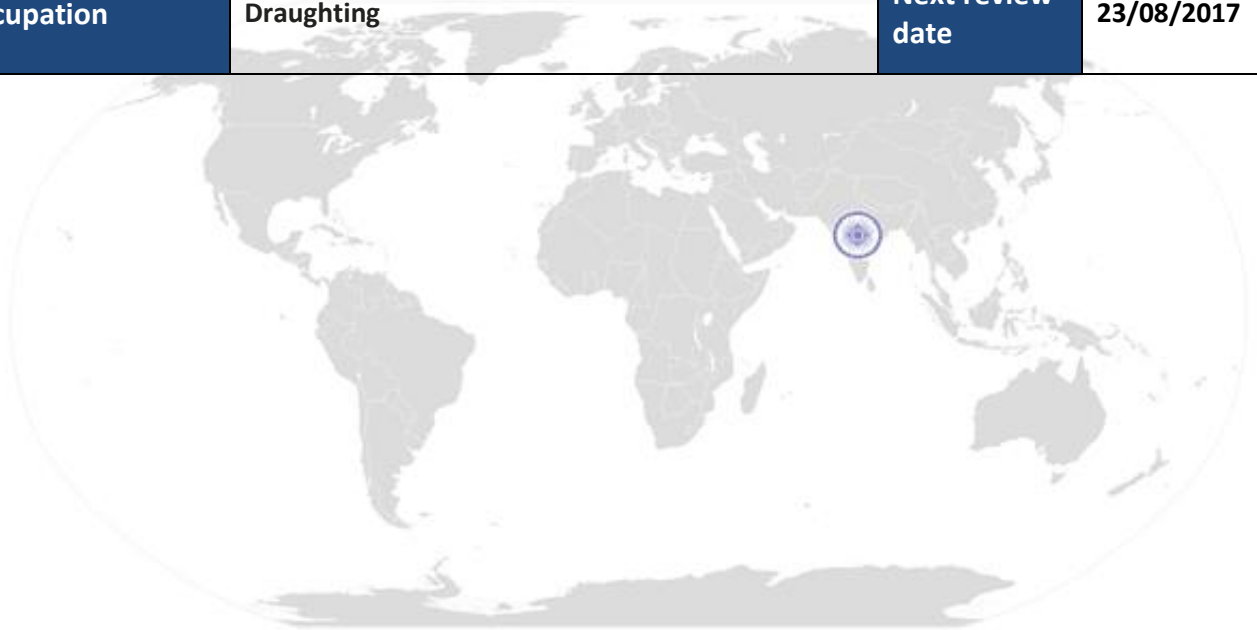


CON/N8002

Plan and organize work to meet expected outcomes

NOS Version Control

NOS Code	CON/N8002		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/08/2015
Industry Sub-sector	Real Estate and Infrastructure Construction	Last reviewed on	23/08/2015
Occupation	Draughting	Next review date	23/08/2017



Assessment Criteria for Draughtsman

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Draughtsman

Qualification Pack CON/Q1301

Sector Skill Council Construction

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the knowledge part will be based on knowledge bank of questions created by Assessment Bodies subject to approval by SSC
3. Individual assessment agencies will create unique question papers for knowledge/theory part for assessment of candidates as per assessment criteria given below
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on assessment criteria.
5. The passing percentage for each QP will be 70%. To pass the Qualification Pack, every trainee should score a minimum of 70% individually in each NOS.
6. The Assessor shall check the final outcome of the practices while evaluating the steps performed to achieve the final outcome.
7. The trainee shall be provided with a chance to repeat the test to correct his procedures in case of improper performance, with a deduction of marks for each iteration.
8. After the certain number of iteration as decided by SSC the trainee is marked as fail, scoring zero marks for the procedure for the practical activity .
9. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack within the specified timeframe set by SSC.
10. Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

Assessment outcomes	Assessment Criteria for outcomes	Marks Allocation			
		Total Mark	Out Of	Theory	Skills Practical
CON/1301: Carry out the initial setup and understand the requirement for preparation of drawings	PC1. ensure that the system is correctly operating	100	9	3.5	5.5
	PC2. check that all peripheral devices are connected and correctly operating		9	3.5	5.5
	PC3. start up the software and adjust the page size, measurement unit, scale and plot area before starting the work		9	3.5	5.5
	PC4. ensure data and information received are sufficient for preparation of drawing		9	3.5	5.5
	PC5. read and interpret the drawing requirements such as rough sketches, specifications, drawing brief, RFD etc. provided by the designer or architect		10	3	7
	PC6. prepare rough sketches from the drawing		9	3.5	5.5

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	requirements to ensure that all details for preparation of drawings are available and in order				
	PC7. consult superiors or concerned authority in case of any confusion or ambiguity in the received drawing requirements or for clarification of any related doubts		9	3.5	5.5
	PC8. interpret drawing requirement such as type of projections, types of views etc		9	3.5	5.5
	PC9. estimate the time required to complete the drawing based upon the scope of work		9	3.5	5.5
	PC10. set drawing parameters like, color, layer, line type, line weight, text font etc		9	3.5	5.5
	PC11. prepare title block for the drawing covering specification required by the client or mentioned in the IS code		9	3.5	5.5
		Total	100	40	60
CON/1302: Prepare 2 dimensional civil drawings using computer aided design (CAD) system	PC1. carry out necessary calculations to compute dimensions of various components/ parts of drawings	100	4	2	2
	PC2. convert the dimensions in required scale to input in system		4	1.5	2.5
	PC3. use drafting principles to produce cad drawings showing plans, sections, elevations, and different types of views		4	2	2
	PC4. use drafting principles to produce topographical maps, contours, civil and structural drawings, architectural drawings		4	2	2
	PC5. use appropriate commands in the software to draw the required drawings as per standard practices		4	1.5	2.5
	PC6. use keyboard commands and pull down menus available in common cad systems to prepare the drawings		4	1.5	2.5
	PC7. use codes and other references that follow the required conventions		4	1.5	2.5
	PC8. draw structures to highlight critical features in accordance with specification requirements		4	1.5	2.5
	PC9. draw civil assemblies to highlight critical features as per specification requirements		4	1.5	2.5
	PC10. create tables to denote the name, dimensions, perimeter and area of various parts or components as per client requirement		4	1.5	2.5
	PC11. add specifications as per the drawing requirements provided by the designer or architect		4	1.5	2.5
	PC12. use relevant and appropriate symbols as per drawing requirement to provide details in the drawings		4	1.5	2.5
	PC13. provide legend in the drawing sheet as per requirement		4	1.5	2.5
	PC14. provide sections and details as per requirement of client, designer or architect		4	1.5	2.5

Assessment Criteria for Draughtsman

	PC15. make appropriate denotations for continual and details on the drawing		4	1.5	2.5
	PC16. provide names to the drawings, sections and details as per code of practice or organisational norms		4	1.5	2.5
	PC17. recheck the drawings to confirm their compliance with the supplied design parameters		4	1.5	2.5
	PC18. correct or remake the drawings in case of any corrections observed by superiors		4	1.5	2.5
	PC19. coordinate with seniors for approval of drawing from design team and client as applicable		4	2	2
	PC20. communicate to concerned authorities for informing completion and approval of prepared drawings		4	2	2
	PC21. draft mails and forward the prepared drawing to concerned authority for approval		4	1.5	2.5
	PC22. maintain documents for completion of work and approval of the same as per organisational norm		4	1.5	2.5
	PC23. store the drawings in appropriate partitions		4	1.5	2.5
	PC24. operate printers and plotters to obtain prints of the drawings		4	1.5	2.5
	PC25. produce hard copies of the drawings in required numbers		4	1.5	2.5
		Total	100	40	60
CON/N8001: Work effectively in a team to deliver desired results at the workplace	PC1. pass on work related information/ requirement clearly to the team members	100	10	4	6
	PC2. inform co-workers and superiors about any kind of deviations from work		10	4	6
	PC3. address the problems effectively and report if required to immediate supervisor appropriately		20	8	12
	PC4. receive instructions clearly from superiors and respond effectively on same		10	4	6
	PC5. communicate to team members/subordinates for appropriate work technique and method		10	4	6
	PC6. seek clarification and advice as per requirement and applicability		10	4	6
	PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams		15	6	9
	PC8. work together with co-workers in a synchronized manner		15	6	9
		Total	100	40	60
CON/N8002: Plan and organize work to meet expected outcomes	PC1. understand clearly the targets and timelines set by superiors	100	13	5	8
	PC2. plan activities as per schedule and sequence		10	4	6
	PC3. provide guidance to the subordinates to obtain desired outcome		13	5	8
	PC4. plan housekeeping activities prior to and post		8	3	5

Assessment Criteria for Draughtsman

	completion of work				
	PC5. list and arrange required resources prior to commencement of work		10	4	6
	PC6. select and employ correct tools, tackles and equipment for completion of desired work		8	3	5
	PC7. complete the work with allocated resources		8	3	5
	PC8. engage allocated manpower in an appropriate manner		5	2	3
	PC9. use resources in an optimum manner to avoid any unnecessary wastage		5	2	3
	PC10. employ tools, tackles and equipment with care to avoid damage to the same		5	2	3
	PC11. organize work output, materials used, tools and tackles deployed,		10	4	6
	PC12. processes adopted to be in line with the specified standards and instructions		8	3	5
		Total	100	40	60