

QUALIFICATION FILE – CONTACT DETAILS OF SUBMITTING BODY

Name and address of submitting body:

Construction Skill Development Council of India

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List of documents submitted in support of the Qualifications File

1. Career Map of Draughting Occupation - Annexure 1
2. QP CON/Q1301- Annexure 2

QUALIFICATION FILE SUMMARY

Qualification Title	Draughtsman - QP CON/Q1301		
Body/bodies which will assess candidates	<ul style="list-style-type: none"> • MCG • Star Projects 		
Body/bodies which will award the certificate for the qualification.	CSDCI		
Body which will accredit providers to offer the qualification.	CSDCI		
Occupation(s) to which the qualification gives access	Draughting		
Proposed level of the qualification in the NSQF.	4		
Anticipated volume of training/learning required to complete the qualification.	600 hrs		
Entry requirements / recommendations.	ITI/Diploma Civil		
Progression from the qualification.	Sr. Draughtsman		
Planned arrangements for RPL.	Work is under progress		
International Comparability	Comparable with UK Standard		
Formal structure of the qualification			
Title of unit or other component (include any identification code used)	Mandatory/ Optional	Estimated size (learning hours)	Level
CON/N1301: Carry out the initial setup and understand the requirement for preparation of drawings	Mandatory	100	4
CON/N1302: Prepare 2 dimensional civil drawings using computer aided design (CAD) system	Mandatory	400	4
CON/N8001 Work effectively in a team to deliver desired results at the workplace	Mandatory	50	4
CON/N9001: Work according to personal health, safety and environment protocol at construction site	Mandatory	50	4

Please attach any document giving further detail about the structure of the qualification – eg a Curriculum or Qualification Pack.

Give details of the document here:

1. QP CON/Q1301- Annexure 2

SECTION 1

ASSESSMENT

Name of assessment body:

If there will be more than one assessment body for this qualification, give details.

- MCG
- Star Projects

Will the assessment body be responsible for RPL assessment?

Give details of how RPL assessment for the qualification will be carried out and quality assured.

The RPL assessment will be carried out through screening, identifying the skills gaps, provide bridge training to cover the competency gap and then conduct final assessment of the candidates.

Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:

Assessment is done through third parties who are affiliated to CSDCI as Assessment Body. Assessors are trained & certified by CSDCI through Training of Trainers program. The assessment involves two processes. The first process is gathering the evidence of the competency of individuals. The second part of the assessment process is the judgement as to whether a person is competent or not. The assessment plan contains the following information:

- What will be assessed, i.e. the competency based on each NOS
- How assessment will occur i.e. methods of assessment
- When the assessment will occur
- Where the assessment will take place i.e. context of the assessment (workplace/simulation)
- The criteria for decision making i.e. those aspects that will guide judgements and
- Where appropriate, any supplementary criteria used to make a judgement on the level of performance.

The assessment is conducted through theory, viva voce and practical.

Please attach any documents giving further information about assessment and/or RPL.

Give details of the document(s) here:

Not Applicable

ASSESSMENT EVIDENCE

Complete the following grid for each grouping of NOS, assessment unit or other component as per the assessment criteria. Insert the required number of rows.

CRITERIA FOR ASSESSMENT OF TRAINEES

Draughtsman

CON/Q1301

Construction Skill Development Council Of India

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 centre 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.

		Marks Allocation			
Assessable Outcome	Assessment criteria	Total Marks	Out Of	Theory	Practical Skills
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 requirements to ensure that all details for preparation of		9	3.5	5.5

	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
	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
CON/N9001: Work according to personal health, safety and environment protocol at construction site	PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority	100	5	1	4
	PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities		5	1	4
	PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable		10	2	8
	PC4. participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site		5	1	4
	PC5. identify near miss , unsafe condition and unsafe act		5	1	4
	PC6. use appropriate Personal Protective Equipment (PPE) as per work <ul style="list-style-type: none"> • requirements including: • Head Protection (Helmets) • Ear protection • Fall Protection • Foot Protection • Face and Eye Protection, • Hand and Body Protection 		10	2	8

<ul style="list-style-type: none"> Respiratory Protection (if required) 			
PC7. handle all required tools, tackles , materials & equipment safely	5	1	4
PC8. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines	5	1	4
PC9. install and apply properly all safety equipment as instructed	15	3	12
PC10.follow safety protocol and practices as laid down by site EHS department	15	3	12
PC11. collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes	10	2	8
PC12.apply ergonomic principles wherever required	10	2	8
	100	20	80

SECTION 2

EVIDENCE OF NEED

What evidence is there that the qualification is needed?

Please refer to the attached list of job roles and occupations identified in construction sector. These job roles have been derived through extensive industry interactions facilitated from 10 workshops and various site visits conducted and interaction with 500+ representatives from different construction sector organizations all over the country.

What is the estimated uptake of this qualification and what is the basis of this estimate?

As per survey the incremental Manpower Gap between 2008 and 2022 found out to be 459000 under Draughting Occupation

What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the NSQF?

QPs for Job Roles of various related SSC's were studied to ensure that there is no duplicity.

What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?

Standards department of CSDCI will do periodic review and monitor the industry feedbacks, Training Partners feedback on the qualification and will incorporate them appropriately at the designated revision time.

The revision of this qualification is scheduled after 2 years i.e. 23/08/2017

Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here:

1. List of job roles

SECTION 3

SUMMARY EVIDENCE OF LEVEL

Summary of Direct Evidence:

Justify the NSQF level allocated to the QP by building upon the five descriptors of NSQF. Explain the reasons for allocating the level to the QP.

Generic NOS is/are linked to the overall authority attached to the job role.

Draughtsman QP CON/Q1301

Process required	Professional Knowledge	Professional Skills	Core Skills	Responsibility	Level
<p>The job holder is expected to perform works in routine situation of clear choice such as to interpret correctly the drawing requirements, produce two dimensional drawings using drafting software, check and reconfirm that all required details are covered in the drawing etc. The work performed by them is predictable as they have access to all required details before commencing the drawing works.</p>	<p>Job holder is expected to have factual knowledge of procedure involved in preparation of different types of drawings. They are also expected to possess factual knowledge of the various terms, symbols, legends, key, functions of tools available in drafting software's etc. The job holder should also be aware of the safety rules and regulations to be observed and emergency procedures laid down at site</p>	<p>The Job holder at this level is expected to demonstrate routine and repetitive skills such as operation of software, accurate interpretation of technical requirement and reproducing the same in terms of drawings, rechecking and documentation of drawings etc. which are essential for preparing different types of civil, fabrication, erection drawings & maps etc.</p> <p>The job holder must also be able to analyse the drawings made by self to check if all the required details are appropriately covered in the drawings</p>	<p>The job holder is expected to have command in at least one language for reading and writing. The job holder must be able to read and interpret required technical details. They are also expected to listen and clearly interpret work instructions and other communications and pass on the same to co-workers.</p> <p>The job holder should be able to apply arithmetic principles for computing dimensions and other details required in drawings</p>	<p>The job holder is responsible for ensuring the completion of own work in expected time and with required quality. The job holder is responsible for conducting simple checks at their own level and communicates any discrepancies to their seniors. The job holder is also responsible for carrying out any reworks if required.</p>	4
Level 4	Level 4	Level 4	Level 4	Level 4	

OTHER EVIDENCE OF LEVEL [This need only be filled in where evidence other than primary outcomes was used to allocate a level] **(Optional)**

Summary of other evidence (if used): **Not applicable.**

SECTION 4

EVIDENCE OF RECOGNITION OR PROGRESSION

What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?

Please refer to attached career path as per annexure 1 which clearly define the clear career path.

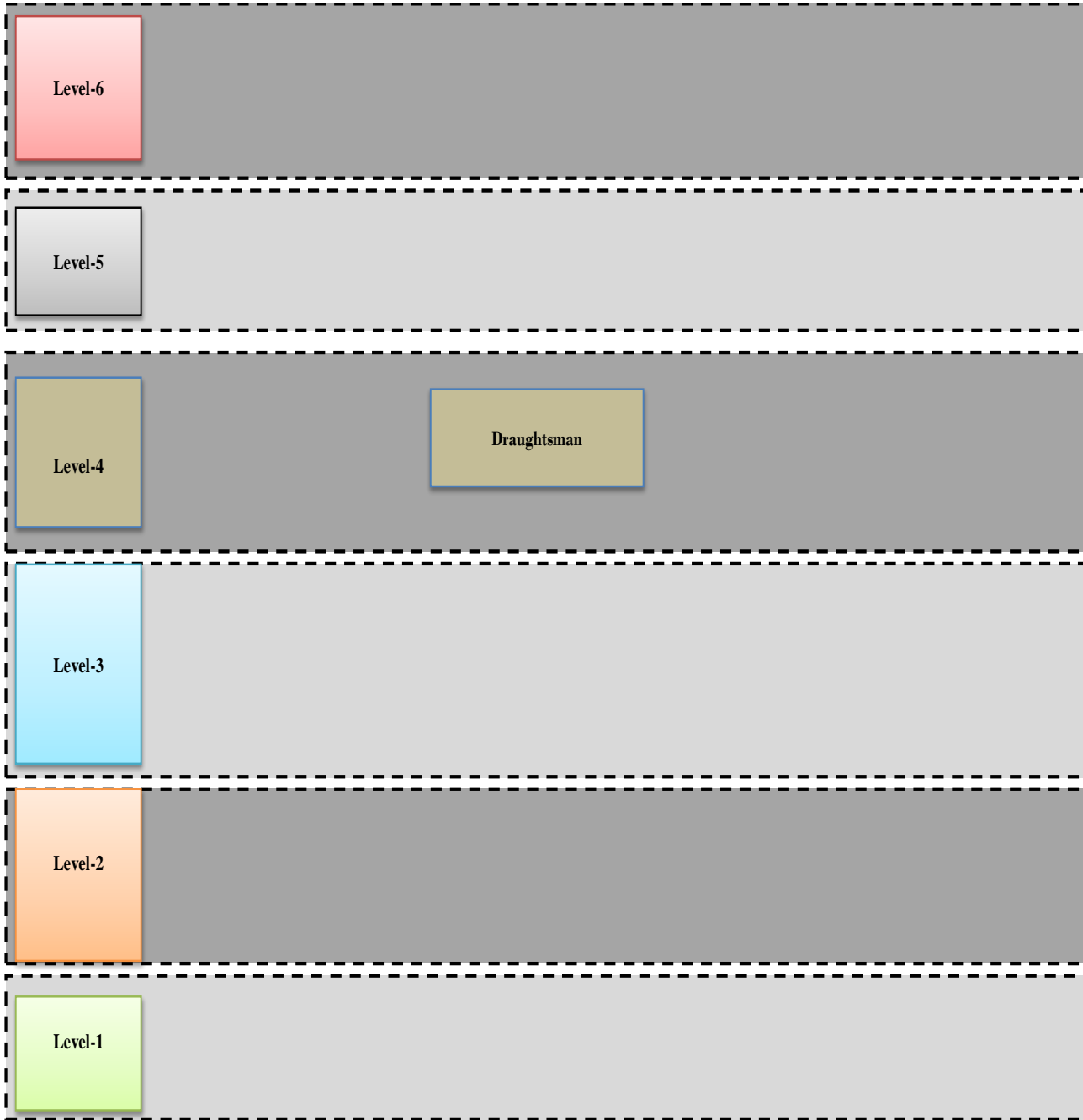
Please attach any documents giving further information about any of the topics above.

Give details of the document(s) here:

1. Annexure 1
 - Overall Career map
 - Career map of Draughting Occupation
2. QP CON/Q1301- Annexure 2

Annexure 1

Career Map



Annexure 2- QP CON/Q1301