



# Model Curriculum

**QP Name: Mason Stone (Electives Dry Cladding/Wet Cladding)**

**QP Code: CON/Q0115**

**QP Version: 1.0**

**NSQF Level: 4**

**Model Curriculum Version: 1.0**

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# Training Parameters

<b>Sector</b>	Construction
<b>Sub-Sector</b>	Real Estate and Infrastructure Construction
<b>Occupation</b>	Masonry
<b>Country</b>	India
<b>NSQF Level</b>	4
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/7112.0100
<b>Minimum Educational Qualification and Experience</b>	5th Class with 2 Years of experience at construction site and certified as Brick Mason (NSQF Level-4) OR 5th Class with 8 Years of experience at construction site in masonry occupation for non-trained worker
<b>Pre-Requisite License or Training</b>	NIL
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	21/09/2021
<b>Next Review Date</b>	21/09/2025
<b>NSQC Approval Date</b>	
<b>QP Version</b>	Version number 1.0
<b>Model Curriculum Creation Date</b>	02/09/2021
<b>Model Curriculum Valid Up to Date</b>	21/09/2025
<b>Model Curriculum Version</b>	Version number 1.0
<b>Minimum Duration of the Course</b>	400 hrs.
<b>Maximum Duration of the Course</b>	616 hrs.



# 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.

- Apply grout and sealant to seal the void or gap between the tiles, stones, marble
- Demonstrate marking and cutting of natural stones to the desired shape and size as per the design pattern, using appropriate tools.
- Demonstrate effective communication with co-workers, superiors and sub-ordinates across different teams
- Provide support to co-workers, superiors and sub-ordinates within the team and across interfacing teams to ensure effective execution of assigned task.
- Demonstrate practices sensitive to disabilities (physical, mental, intellectual or sensory impairment), cultural diversity and gender neutrality.
- Demonstrate prioritizing of work activities to achieve the desired productivity.
- Demonstrate organizing of resources as per work plan prior to commencement of work.
- Identify various hazards at construction site.
- Use PPE's relevant to stone masonry task.
- Perform safe waste disposal at construction site.
- Demonstrate the activities to check the spread of infection as per medical/ organizational guidelines.
- Store the stones and prepare surface for cladding.
- Perform dry cladding works using natural stones as per requirements.
- Perform wet cladding works using natural stones.
- Carry out preparatory works for flooring with natural stones.
- Perform flooring works with natural stones.
- Perform mosaic flooring.
- Perform terrazzo flooring.

## 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
<i>Bridge Module</i>	<b>08:00</b>	<b>0</b>	--	--	<b>08:00</b>
<b>CON/N0116 Apply grouts and sealants for flooring and cladding works</b> NOS Version No. 2.0 NSQF Level 4	<b>16:00</b>	<b>48:00</b>	--	--	<b>64:00</b>
Perform grouting for flooring and cladding	16:00	48:00	--	--	64:00
<b>CON/N0155 Mark and cut natural stones as per design pattern</b> NOS Version No. 1.0 NSQF Level 4	<b>24:00</b>	<b>56:00</b>	--	--	<b>80:00</b>
Perform marking and cutting of natural stones	24:00	56:00	--	--	80:00
<b>CON/N8001 Work effectively in a team to deliver desired results at the workplace</b> NOS Version No.6.0 NSQF Level 4	<b>08:00</b>	<b>24:00</b>	--	--	<b>32:00</b>
Communicate effectively at workplace	08:00	24:00	--	--	32:00
<b>CON/N8002 Plan and organize work to meet expected outcomes</b> NOS Version No. 5.0 NSQF Level 4	<b>08:00</b>	<b>24:00</b>	--	--	<b>32:00</b>
Prioritise activities and organise resources	08:00	24:00	--	--	32:00
<b>CON/N9001 Work according to personal health, safety and environment protocol at construction site</b> NOS Version No.6.0 NSQF Level 4	<b>08:00</b>	<b>24:00</b>	--	--	<b>32:00</b>
Follow safety norms as defined by organization, adopt healthy and safe work practices	08:00	24:00	--	--	32:00
<b>Total Duration</b>	<b>72:00</b>	<b>176:00</b>	--		<b>248:00</b>

## Elective Modules

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

### Elective 1: Dry Cladding

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
<b>CON/N0149 Carry out dry cladding works with natural stones</b> NOS Version No.1.0 NSQF Level 4	<b>48:00</b>	<b>104:00</b>	--	--	<b>152:00</b>
Perform dry cladding work	48:00	104:00	--	--	152:00
<b>Total Duration</b>	<b>48:00</b>	<b>104:00</b>	--	--	<b>152:00</b>

### Elective 2: Wet Cladding

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
<b>CON/N0150 Carry out wet cladding works with natural stones</b> NOS Version No.1.0 NSQF Level 4	<b>16:00</b>	<b>48:00</b>	--	--	<b>64:00</b>
Perform wet cladding works	16:00	48:00	--	--	64:00
<b>CON/N0151 Carry out flooring works for natural stones</b> NOS Version No.1.0 NSQF Level 4	<b>24:00</b>	<b>64:00</b>	--	--	<b>88:00</b>
Perform flooring works with natural stones	24:00	64:00	--	--	88:00
<b>Total Duration</b>	<b>40:00</b>	<b>112:00</b>	--	--	<b>152:00</b>

## Optional Modules

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

### Option 1: Terrazzo and Mosaic flooring

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
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<b>CON/N0152 Carry out terrazzo and mosaic flooring works NOS Version No.1.0 NSQF Level 4</b>	<b>16:00</b>	<b>48:00</b>	--	--	<b>64:00</b>
Perform terrazzo and mosaic flooring	16:00	48:00	--	--	64:00
<b>Total Duration</b>	<b>16:00</b>	<b>48:00</b>	--	--	<b>64:00</b>



# Module Details

## Module 1: Introduction to the job role Mason Stone (Electives Dry Cladding/Wet Cladding)

### Bridge Module

#### Terminal Outcomes:

- Explain the role and responsibilities of Mason Stone.
- Discuss the career progression for the job role of Mason Stone.

<b>Duration:</b> 08:00	<b>Duration:</b> 00:00
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Describe the role and responsibilities of Mason Stone (Electives Dry Cladding/Wet Cladding).</li> <li>• Define the personal attributes required in masonry occupation.</li> <li>• Explain the future possible progression and career development options of a Mason Stone (Electives Dry Cladding/Wet Cladding).</li> </ul>	
<b>Classroom Aids:</b>	
Black/White board, Projector/LED Monitor, Computer system, Trade specific charts and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
N/A	





## Module 2: Apply grouts and sealant for tiles and stones

### Mapped to CON/N0116 v 2.0

#### Terminal Outcome:

- Carry out preparatory work for grouting of tile, stone, marble, and granite works.
- Apply grout and sealant to seal the void or gap between the tiles, stones, marble.

<b>Duration: 18:00</b>	<b>Duration: 76:00</b>
<p><b>Theory – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Interpret drawing for tiling and cladding works</li> <li>• Explain the use of different tools used for mixing and application of grouts.</li> <li>• Describe the use of different types of grouts and sealants used for filling voids in tiles, marble, granite and stones including cement based grout (Sanded / Non Sanded) and epoxy based grouts.</li> <li>• Explain the different process used to prepare the respective grouts for tiles and stones.</li> <li>• Describe the standard procedure applicable for the application of grouts on the vertical or the horizontal surface.</li> <li>• List the effects of different types of liquid polymeric additives (mostly blends of acrylics and latex) added to cementations grout.</li> <li>• Discuss the suitability of various grouts as per manufacturer’s specification, its stability, method of mixing and curing for optimum utilization.</li> <li>• Describe the process of matching grout with approved colour and shades as per design.</li> <li>• Explain the method of removing old grouting compounds.</li> <li>• Explain the method of maintaining various tools and equipment for application of grout.</li> </ul>	<p><b>Practical – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Prepare different types of grouts as per surface requirements and manufacturer’s specifications.</li> <li>• Use appropriate hand tools to fill grouts and ensure it is without spillage/haze on the surface.</li> <li>• Demonstrate curing of grout prior to application of sealant.</li> <li>• Demonstrate polishing of the surface after application of grout.</li> <li>• Demonstrate removal of old grouting compound using appropriate tools as per requirement</li> <li>• Perform checks for line’ level and alignment of tiled/stoned surface at regular intervals during grouting.</li> <li>• Demonstrate safe disposal of construction debris.</li> </ul>
<b>Classroom Aids:</b>	
Black/White board, Projector/LED Monitor, Computer system, Trade specific charts and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
Measuring tape/rule, Masons line, Plumb bob, Try Square, Mortar pan, Trowels, Straight edge (Aluminium), Wood/rubber mallet, Corner trowel, Pointer trowel, Line and pins, Spirit level, Water level, Square notch trowel, Hammers, mallets, wedges, power wet saws, tile scribes or hand held, tile cutters, rubber grout float, tile trims/tile strips, spacers, Mixing platform {3’x5’}	



## Module 3: Perform marking and cutting of natural stones as per design pattern

*Mapped to CON/N0155, v1.0*

### Terminal Outcomes:

- Demonstrate preparatory works for the laying of stones.
- Demonstrate marking and cutting of natural stones to the desired shape and size as per the design pattern, using appropriate tools.

<b>Duration: 24:00</b>	<b>Duration: 56:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Interpret drawing/ sketches for the stone laying work.</li> <li>• Explain the standard practices of marking and cutting of stones.</li> <li>• Discuss the basic techniques for surface preparation prior to laying of stones.</li> <li>• Describe the various types of natural stones such as granite, marble, limestone, soapstone, slate, onyx etc. and their properties.</li> <li>• Explain the use of various tools used for laying of stones.</li> <li>• Explain the various procedures for marking and cutting of stones to the desired shape and size as per the design pattern, using appropriate tools.</li> </ul>	<ul style="list-style-type: none"> <li>• Perform checks on stones to confirm its usability.</li> <li>• Demonstrate measuring and marking of the surface for laying of stones.</li> <li>• Demonstrate the procedure for marking and cutting of stones to the desired shape and size as per the design pattern, using appropriate tools.</li> </ul>
<b>Classroom Aids:</b>	
Black/White board, Projector/LED Monitor, Computer system, Trade specific charts and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
Measuring tape/rule, Masons line, Plumb bob, Try Square, Mortar pan, Trowels, Straight edge (Aluminium), Wood/rubber mallet, Line and pins, Spirit level, water level, Square notch trowel, Hammers, mallets, wedges, power wet saws, circular saw, specialty rail saw, tile scribes or hand held tile cutters, rubber grout float, , Mixing platform {3'x5'}	



## Module 4: Communicate effectively at workplace

Mapped to CON/N8001, v.6.0

### Terminal Outcomes:

- Demonstrate effective communication with co-workers, superiors and sub-ordinates across different teams
- Provide support to co-workers, superiors and sub-ordinates within the team and across interfacing teams to ensure effective execution of assigned task.
- Demonstrate practices sensitive to disabilities (physical, mental, intellectual or sensory impairment), cultural diversity and gender neutrality.

<b>Duration: 08:00</b>	<b>Duration: 24:00</b>
<p><b>Theory – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Explain the effects and benefits of timely actions relevant to the task at hand with examples.</li> <li>• Explain the importance of teamwork and its effects relevant to the task at hand with examples.</li> <li>• Explain the importance of proper and effective communication and its adverse effects in case of failure of proper communication.</li> <li>• Discuss about gender and its related concept: gender equality, gender equity (group work)</li> <li>• Discuss different types of disabilities (physical, mental, intellectual or sensory impairment).</li> <li>• Discuss the activities sensitive to the cultural diversity, disabilities and gender neutrality at the workplace.</li> <li>• Discuss the basic rules and regulations related to gender sensitivity, disabilities, and cultural diversity, with their impact on operations of a workplace.</li> <li>• Discuss how to take initiative in resolving issues among co-workers in a given situation.</li> <li>• Discuss reporting procedure followed at the workplace.</li> </ul>	<p><b>Practical – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Apply effective communication skills while interacting with co-workers, trade seniors and others during the assigned task.</li> <li>• Use appropriate writing skills and verbal communication reporting as per commonly applicable organisational norms.</li> <li>• Demonstrate teamwork skills during assigned task.</li> <li>• Demonstrate acceptable interpersonal transactions with individuals having disabilities (physical, mental, intellectual or sensory impairment) or cultural diversity.</li> <li>• Demonstrate the process modifications required to make the workplace free from gender biases.</li> </ul>
<b>Classroom Aids:</b>	
Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
N/A	



## Module 5: Prioritise activities and organise resources

*Mapped to CON/N8002, v.5.0*

### Terminal Outcomes:

- Demonstrate prioritizing of work activities to achieve the desired productivity.
- Demonstrate organizing of resources as per work plan prior to commencement of work.

<b>Duration: 08:00</b>	<b>Duration: 24:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Explain methods to upkeep, store and stack tools, materials used for domain specific works.</li> <li>• Explain the process of planning of the given tasks and activities relevant to the trade/job role within defined scope and duration.</li> <li>• Explain the procedure adopted for prioritizing an activity and sequencing of activities.</li> <li>• Explain the work plan and flow of activities in sequence for the assigned work.</li> <li>• Explain basic concept of labour productivity and work productivity.</li> <li>• Explain requisition of resources, reporting for requirement of resources orally and in written to concerned authority.</li> <li>• Explain how to minimise wastage of resources.</li> <li>• Explain the plan for waste collection and disposal after task.</li> </ul>	<ul style="list-style-type: none"> <li>• Identify the work target and plan activities to achieve the desired productivity.</li> <li>• Demonstrate requisition of resource citing an example.</li> <li>• Demonstrate the planning for various activities relevant to task as per the scope and schedule.</li> <li>• Demonstrate how to organise the required tool, manpower and material resources for the assigned task.</li> <li>• Select required quantity of materials, tools or devices for defined work activities.</li> <li>• Demonstrate how to prioritize all works/ activities to maximise output.</li> <li>• Demonstrate optimum use of resources while performing domain specific work activities.</li> <li>• Demonstrate waste collection and disposal as per organisational norms.</li> <li>• Demonstrate completion of work within stipulated time and plan.</li> </ul>
<b>Classroom Aids:</b>	
Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
N/A	



## Module 6: Follow safety norms as defined by organization, adopt healthy and safe work practices

*Mapped to CON/N9001, v.6.0*

### Terminal Outcome:

- Identify various hazards at construction site.
- Use PPE's relevant to stone masonry task.
- Perform safe waste disposal at construction site.
- Demonstrate the activities to check the spread of infection as per medical/ organizational guidelines.

Duration: 08:00	Duration: 24:00
<p><b>Theory – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Explain the types of hazards at the construction sites and identify the hazards specific to the domain related works.</li> <li>• Recall the safety control measures and actions to be taken under emergency situation.</li> <li>• Explain the classes of fire and types of fire extinguishers.</li> <li>• Explain the importance of participation of workers in safety drills.</li> <li>• Explain the reporting procedure to the concerned authority in case of emergency situations.</li> <li>• Describe the standard procedure for handling, storing and stacking of material, tools, equipment and accessories.</li> <li>• Explain different types of waste at construction sites and their disposal method.</li> <li>• Explain the purpose and importance of vertigo test at construction site.</li> <li>• List out basic medical tests required for working at construction site.</li> <li>• Explain the types and benefits of basic ergonomic principles, which should be adopted while carrying out specific task at the construction sites.</li> <li>• Explain the importance of housekeeping works.</li> <li>• List different types of infectious disease that can spread/ originate at a construction site</li> <li>• Discuss the ways of transmission of the various infectious disease.</li> <li>• Explain the methods to check the spread of the infectious disease.</li> </ul>	<p><b>Practical – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Demonstrate the operating procedure of the fire extinguishers.</li> <li>• Demonstrate use of PPEs as per work requirements.</li> <li>• Demonstrate vertigo test.</li> <li>• Demonstrate safety techniques to be adopted in case of accidents.</li> <li>• Demonstrate safe waste disposal practices followed at construction site.</li> <li>• Demonstrate safe housekeeping practices.</li> <li>• Demonstrate the practices to maintain personal hygiene, workplace hygiene and site/ workplace sanitization.</li> <li>• Demonstrate the methods to clean and disinfect all materials, tools and supplies before and after use.</li> <li>• Demonstrate the procedure to report to the concerned authority regarding the outbreak/ hazard of any infectious disease/ pandemic.</li> </ul>



- Describe the symptoms and cure of the various infectious disease.

**Classroom Aids:**

Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids

**Tools, Equipment and Other Requirements**

Leather Hand Gloves, Jump suit, Wire brush, Hand and Leg guard leather, Safety goggles, Nose mask, Ear protection, Fire extinguishers, Sand buckets Flashback arrestors, Welding helmet, Welding glass, Fire Extinguisher, Fire prevention kit, First Aid box, Safety tags, Safety Notice board



## Elective 1: Dry Cladding

### Module 7: Perform dry cladding works with natural stones.

#### Mapped to CON/N0149, V1.0

#### Terminal Outcome:

- Store the stones and prepare surface for cladding.
- Perform dry cladding works using natural stones as per requirements.

<b>Duration: 48:00</b>	<b>Duration: 104:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Interpret sketches/drawing for the dry cladding work.</li> <li>• Described the standard procedure for dry cladding works.</li> <li>• Describe the various checks performed on wall surface including visual checks, measurement checks, and checks for embedded provisions.</li> <li>• Explain the procedure for surface preparation in cladding works.</li> <li>• Describe different types of stones used in cladding works.</li> <li>• Explain the procedure for handling, shifting and placing of natural stones.</li> <li>• Describe different types of stones used in cladding works including their basic properties and application.</li> <li>• Explain the use of tools required in dry cladding works.</li> <li>• Explain the procedure for the fixing of anchors/fasteners and other accessories for dry cladding work.</li> <li>• Explain the procedure for the fixing of natural stones for dry cladding using suitable anchoring tools, as per standard procedure.</li> <li>• Explain the need for maintaining gap between wall and stone lining for proper drainage.</li> <li>• Explain the use of anchoring tools for dry cladding.</li> <li>• Explain the use of mechanical ties and anchor clips for dry cladding.</li> <li>• Differentiate between dry and wet cladding.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate storage of natural stones as per set standards.</li> <li>• Demonstrate the checks carried out on the wall surface to conform its suitability for work.</li> <li>• Demonstrate the installation of button mark/level pads.</li> <li>• Demonstrate the fixing of anchors/fasteners and other accessories for dry cladding work.</li> <li>• Demonstrate the fixing of natural stones for dry cladding using suitable anchoring tools, as per standard procedures.</li> <li>• Demonstrate the provision for adequate drainage in dry cladding works.</li> <li>• Demonstrate the checks for line, level and alignment.</li> </ul>
<b>Classroom Aids:</b>	
Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
Measuring tape/rule, Masons line, Plumb bob, Try Square, Mortar pan, Trowels, Straight edge (Aluminium), Wood/rubber mallet, Line and pins, Spirit level, water level, Square notch trowel, Hammers, mallets, wedges, power wet saws, circular saw, specialty rail saw, tile scribes or hand held tile cutters, rubber grout float, anchoring tools , Mixing platform {3'x5'}	



## Elective 2: Wet Cladding

### Module 8: Perform wet cladding works with natural stones

#### Mapped to CON/N0150, V1.0

#### Terminal Outcome:

- Carry out preparatory works for wet cladding.
- Perform wet cladding works using natural stones.

<b>Duration: 16:00</b>	<b>Duration: 48:00</b>
<b>Theory – Key Learning Outcomes</b>	<b>Practical – Key Learning Outcomes</b>
<ul style="list-style-type: none"> <li>• Interpret sketches/drawing for the wet cladding work.</li> <li>• Described the standard procedure for wet cladding works.</li> <li>• Describe the various checks performed on wall surface including visual checks, measurement checks, and checks for embedded provisions.</li> <li>• Explain the procedure for handling, shifting and placing of natural stones.</li> <li>• Describe different types of stones used in cladding works including their basic properties and application.</li> <li>• Explain the use of tools required in wet cladding works.</li> <li>• Explain the procedure for surface preparation in cladding works.</li> <li>• Explain the procedure for the fixing of anchors/fasteners and other accessories for wet cladding work.</li> <li>• Explain the procedure for the fixing of natural stones for wet cladding using suitable mortar and tools, as per standard procedure.</li> <li>• Explain the use of mechanical ties and anchor clips for wet cladding.</li> <li>• Differentiate between dry and wet cladding.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrate storage of natural stones as per set standards.</li> <li>• Demonstrate the checks carried out on the wall surface to conform its suitability for wet cladding work.</li> <li>• Demonstrate the installation of button mark/level pads.</li> <li>• Demonstrate the fixing of anchors/fasteners and other accessories for wet cladding work.</li> <li>• Demonstrate the fixing of natural stones for wet cladding works using suitable mortar and tools, as per standard procedures.</li> <li>• Demonstrate grouting and pointing in stones.</li> <li>• Demonstrate the checks for line, level and alignment.</li> </ul>
<b>Classroom Aids:</b>	
Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids	
<b>Tools, Equipment and Other Requirements</b>	
Measuring tape/rule, Masons line, Plumb bob, Try Square, Mortar pan, Trowels, Straight edge (Aluminium), Wood/rubber mallet, Line and pins, Spirit level, water level, Square notch trowel, Hammers, mallets, wedges, power wet saws, circular saw, specialty rail saw, tile scribes or hand held tile cutters, rubber grout float, anchoring tools , Mixing platform {3'x5'}	





## Module 9: Perform flooring works with natural stones

### Mapped to CON/ N0151, V1.0

#### Terminal Outcome:

- Carry out preparatory works for flooring with natural stones.
- Perform flooring works with natural stones.

<b>Duration: 24:00</b>	<b>Duration: 64:00</b>
<p><b>Theory – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Interpret sketches/drawing for the stone laying work.</li> <li>• Describe different types of stones used in floor laying works including their basic properties and application.</li> <li>• Describe the various checks performed on wall surface including visual checks, measurement checks, and checks for embedded provisions.</li> <li>• Explain the procedure for handling, shifting and placing of natural stones.</li> <li>• Explain the use of tools required in stone floor laying works including their standard specifications.</li> <li>• Explain the procedure for preparation of bed mortar, cement slurry and cement paste for floor laying work.</li> <li>• Explain the procedure for the fixing of natural stones for flooring works using suitable mortar and tools, as per standard procedure.</li> <li>• Describe the method and technique for finishing and polishing of stones.</li> </ul>	<p><b>Practical – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Demonstrate storage of natural stones as per set standards.</li> <li>• Demonstrate the visual checks, measurement checks, and checks for embedded provisions, carried out on the wall surface to conform its suitability for work.</li> <li>• Demonstrate the installation of button mark/level pads for floor laying.</li> <li>• Demonstrate the laying and fixing of natural stones for flooring using suitable mortar and tools, as per design patters and standard procedures.</li> <li>• Demonstrate grouting and finishing works in stones using appropriate tools.</li> <li>• Demonstrate polishing of stones using appropriate tools.</li> <li>• Demonstrate the checks for line, level and alignment.</li> </ul>
<p><b>Classroom Aids:</b></p> <p>Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids</p>	
<p><b>Tools, Equipment and Other Requirements</b></p> <p>Measuring tape/rule, Masons line, Plumb bob, Try Square, Mortar pan, Trowels, Straight edge (Aluminium), Wood/rubber mallet, Line and pins, Spirit level, water level, Square notch trowel, Hammers, mallets, wedges, power wet saws, circular saw, specialty rail saw, tile scribes or hand held tile cutters, rubber grout float, , Mixing platform {3'x5'}, pumice stone, polishing machine</p>	



**Option 1: Terrazzo and Mosaic flooring**  
**Module 10: Perform terrazzo and mosaic flooring works**  
*Mapped to CON/N0152, V1.0*

**Terminal Outcome:**

- Perform mosaic flooring.
- Perform terrazzo flooring.

<b>Duration: 16:00</b>	<b>Duration: 48:00</b>
<p><b>Theory – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Interpret sketches/drawing for the terrazzo and mosaic flooring.</li> <li>• Explain the procedure for surface preparation in terrazzo and mosaic flooring.</li> <li>• Describe the process followed for estimation of materials for terrazzo and mosaic flooring.</li> <li>• Describe the standard specification of all tools and materials used terrazzo and mosaic flooring, along with their usage.</li> <li>• Explain the process of preparation of panels using baton strips.</li> <li>• Described the standard procedure for terrazzo and mosaic flooring.</li> </ul>	<p><b>Practical – Key Learning Outcomes</b></p> <ul style="list-style-type: none"> <li>• Apply basic geometry for terrazzo and mosaic flooring as per design /patterns.</li> <li>• Demonstrate the surface preparation for terrazzo and mosaic flooring.</li> <li>• Demonstrate the preparation of concrete course and base course for mosaic flooring.</li> <li>• Demonstrate the cutting and fixing of baton strips for panels.</li> <li>• Demonstrate the procedure for the terrazzo and mosaic flooring work using suitable mortar and tools, as per standard procedure, ensuring proper curing.</li> <li>• Demonstrate polishing and smoothing of the mosaic /terrazzo design surface.</li> <li>• Demonstrate the checks for line, level and alignment.</li> </ul>
<p><b>Classroom Aids:</b></p> <p>Black/White board, marker, Projector/LED Monitor, Computer, Trade specific charts, Safety tags, Safety Notice board, registers and other teaching aids</p>	
<p><b>Tools, Equipment and Other Requirements</b></p> <p>Measuring tape/rule, Masons line, Plumb bob, Try Square, Mortar pan, Trowels, Straight edge (Aluminium), Wood/rubber mallet, Line and pins, Spirit level, water level, Square notch trowel, Hammers, mallets, wedges, power wet saws, circular saw, specialty rail saw, tile scribes or hand held tile cutters, rubber grout float, anchoring tools , Mixing platform {3’x5’}</p>	



# Annexure

## Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
Post-Graduation/ Graduation in Engineering	M. Tech/B. Tech	Two	Civil Engineering	0	Civil Engineering	As a pre-requisite for new entrant, no prior experience in training /assessment is mandatory. However, if someone with prior experience in requisite domain joins, experience will be measured in terms of relevant industry experience.
Diploma	Civil	Three	Civil Engineering	0	Civil Engineering	
Graduation/ Ex. Army /ITI /12 <sup>th</sup> pass	Any graduation/ certificate from Army/ITI certificate in relevant trade/12 <sup>th</sup> pass	Six	Working experience as mason stone/ supervisory work experience in masonry work	0	Working experience as mason stone/ supervisory work experience in masonry work	

Trainer Certification	
Domain Certification	Platform Certification
Trainer- 80 % in each NOS of Qualification Pack "Mason Stone CON/Q0115, v1.0" and 80% overall	Trainers - 80% in each NOS of Qualification Pack "Trainer MEP/Q2601, v1.0" and 80% overall.



## Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Post-Graduation/ Graduation in Engineering	M. Tech/B. Tech	Two	Civil Engineering	0	Civil Engineering	As a pre-requisite for new entrant, no prior experience in training /assessment is mandatory. However, if someone with prior experience in requisite domain joins, experience will be measured in terms of relevant industry experience.
Diploma	Civil	Five	Civil Engineering	0	Civil Engineering	
Graduation/ Ex. Army /ITI /12 <sup>th</sup> pass	Any graduation/ certificate from Army/ITI certificate in relevant trade/12 <sup>th</sup> pass	Seven	Working experience as mason stone/ supervisory work experience in masonry work	0	Working experience as mason stone/ supervisory work experience in masonry work	

Assessor Certification	
Domain Certification	Platform Certification
Assessor- 80% in each NOS of Qualification Pack “Mason Stone CON/Q0115, v1.0” and 80% overall	Assessors- 80% in each NOS of Qualification Pack “Assessor MEP/Q2701, v1.0” and overall 80%.



## Assessment strategy

### Assessment system Overview

Assessment is done through CSDCI affiliated Assessment Body. Assessors are trained and certified by CSDCI after training of assessor's program. Assessments is conducted to gauge and assess the trainee's skill and knowledge competency in the specified areas. The assessment will have both theory and practical components in 30:70 ratios for Mason Stone (Electives Dry Cladding/Wet Cladding) job role.

During the practical task, trainees are assessed on their workmanship, quality of finished product and time management. They will be graded for all their assessments based on the approved assessment strategy which is signed off by CSDCI. The Assessor submits an assessment plan to CSDCI prior to assessments.

The assessment plan contains the following information:

- What will be assessed, i.e. the competency based on each NOS based on theory and practical questions
- How assessment will occur i.e. methods of assessment
- When the assessment will occur
- Duration of assessment
- 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 judgments and
- Where appropriate, any supplementary criteria used to make a judgment on the level of performance.

### Testing Environment

Training partner shares the batch start date and end date, number of trainees and the job role. Assessment will be fixed for a day after the end date of training. It could be next day or later. Assessment will be conducted at the training venue/test center.

The knowledge/theory assessments are conducted with proper seating arrangements with enough space between the candidates to prevent copying.

Question set for theory and practical will be distributed to each candidate by the Assessor. Theory testing will include multiple choice questions, pictorial question, etc. which will test the trainee on his theoretical knowledge of the subject. The skill /practical assessments will be conducted in the approved test centers. The Assessment agency/ Assessor will ensure adequate tools and materials are available to conduct the practical test.

The theory and practical assessments will be carried out on same day. If number of candidates are more than 20, more assessors will be organized on same day to complete the assessment.

The assessment has to comprise of two components, namely:

1. Knowledge assessment (theory/viva assessment)
2. Skill assessment (practical/hands-on skill assessment)

#### **Mode of assessment**

1. Demonstration/Practical for Performance /Skill Assessment
1. Synoptic multiple-choice question test }  
2. Viva } for Knowledge Assessment

**Performance/skill assessment:** The performance/skill assessment will be conducted through demonstration/practical.



For the practical test trainees are assessed through a given task, which they have to complete correctly for them to be marked as passed.

The assessment is conducted in a simulated working environment. Due to this fact, the assessors must note that the naturally occurring evidence of competence is unavailable or infrequent. Simulation must be undertaken in a Realistic Working Environment which provides an environment that replicates the key characteristics of the workplace in which the skill to be assessed is normally employed.

**Knowledge Assessment:** The knowledge assessments are conducted through written test/ viva.

Synoptic test is used for this. It is an MCQ (Multiple Choice Question) test which are prepared externally and externally marked, meaning by agency having no link with training partners. The test may be conducted by the assessor in the oral mode, if required, considering the lack of reading and comprehending acumen (skills) of trainees. In such cases, the assessor will mention it on top of the MCQ submitted to CSDCI.

The assessment strategy, weightage and duration of assessment for Mason Stone (Electives Dry Cladding/Wet Cladding) is summarized below:

Assessment				
Assessment Type	Formative or Summative	Strategies	Weightage	Duration (hours)
Knowledge	Summative	MCQ/ Viva	30	1.5
Skill	Summative	Structured practical tasks	70	5.5

### Assessment Quality Assurance framework

CSDCI has developed assessment criteria framework for each Qualification pack as per National Occupational Standards (NOS). The criteria framework includes weightages/marks for each criterion under knowledge and skill. The criteria ensure quality assurance as it ensures valid, consistent and fair assessments at all locations. Issued to the affiliated Assessment body. The Assessment body develop questions based on CSDCI issued assessment criteria.

Evidences in the form of answer sheets in case of knowledge assessments are collected. For skill assessments videos and photographs are prepared as evidence. These are submitted by the assessor to the assessment agency. CSDCI does random checks of the same with the participant/ trainee's ID and ascertains authenticity and validity of assessments.

The training partner will intimate the time of arrival of the assessor and time of leaving the venue. Random spot checks/audit is conducted by CSDCI to monitor assessment.



## Methods of Validation

Unless the trainee is registered, the person cannot undergo assessment. To further ensure that the person registered is the person appearing for assessment, ID verification is carried out. Aadhar card number is part of registering the candidate for training. This forms the basis of further verification during the assessment.

Assessor conducts the assessment through theory and practical questions developed in accordance with the assessment criteria and guidelines issued by CSDCI. This too is verified by random audits carried out by CSDCI.

Video of the practical session is prepared and submitted to CSDCI for verification as per demand.

Assessment agency is responsible to put details in SIP. CSDCI will also validate the data and result received from the assessment agency.

## Method of assessment documentation and access

The assessment agency will upload the result of assessment in the portal. The data will not be accessible for change by the assessment agency after the upload. The assessment data will be validated by CSDCI assessment team. After upload, only CSDCI can access this data.

CSDCI approves the results within a week and uploads it on SIP.



## References

## Glossary

Term	Description
<b>Declarative Knowledge</b>	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
<b>Key Learning Outcome</b>	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
<b>OJT (M)</b>	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
<b>OJT (R)</b>	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
<b>Procedural Knowledge</b>	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.
<b>Training Outcome</b>	Training outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of the training</b> .
<b>Terminal Outcome</b>	Terminal outcome is a statement of what a learner will know, understand and be able to do <b>upon the completion of a module</b> . A set of terminal outcomes help to achieve the training outcome.





## 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