



Chargehand - Piling

QP Code: CON/Q0707

Version: 2.0

NSQF Level: 4

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CON/Q0707: Chargehand - Piling

Brief Job Description

The job role is responsible for conducting pile boring operations for cast-in-situ bored piles, carrying out soil boring by operating winch machine, and carrying out arc welding in reinforcement steel cages for length extension at construction sites. The person maintains safe and quality work practices.

Personal Attributes

The chargehand-piling is expected to be physically fit to work across various locations with varied environmental conditions. The person should be organized, diligent, methodical, safety-conscious, and a prompt decision-maker. In addition to being a team player, the individual should have good communication skills.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [CON/N0721: Conduct preparatory works for conventional RCC pile boring operation](#)
2. [CON/N0722: Carry out pile boring using winch machine](#)
3. [CON/N0723: Carry out arc welding on the reinforcement steel bars for extension of pile cage](#)
4. [CON/N0724: Conduct pile boring and concreting activity](#)
5. [CON/N8001: Work effectively in a team to deliver desired results at the workplace](#)
6. [CON/N8002: Plan and organize work to meet expected outcomes](#)
7. [CON/N9001: Work according to personal health, safety and environment protocols at construction site](#)

Qualification Pack (QP) Parameters

Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Rigging
Country	India
NSQF Level	4



Qualification Pack



Credits	NA
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7215.9900
Minimum Educational Qualification & Experience	8th Class with 3 Years of experience as a NSQF level 4 certified Rigger Piling at construction site OR 8th Class with 9 Years of experience for a non-trained worker in Rigging occupation at construction site
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NIL
Minimum Job Entry Age	18 Years
Last Reviewed On	21/09/2021
Next Review Date	21/09/2025
NSQC Approval Date	
Version	2.0



CON/N0721: Conduct preparatory works for conventional RCC pile boring operation

Description

This unit describes the skills and knowledge required to conduct preparatory works for conventional RCC pile boring operation

Scope

The scope covers the following :

- Conduct erection and installation of piling tripod stand and related equipment
- Conduct the excavation of storage tanks/ pits and install pumps for use during piling operation

Elements and Performance Criteria

Conduct erection and installation of piling tripod stand and related equipment

To be competent, the user/individual on the job must be able to:

- PC1.** ensure proper working condition of rigging gears, tools, components and materials required to erect piling tripod
- PC2.** carryout shifting of rigging gears, components and ensure their proper stacking at specified locations
- PC3.** confirm centre point of boring location/ pile point by carrying out necessary measurements from reference points
- PC4.** conduct assembling and erection of piling tripods at the specified location and recheck the measurements to confirm its exact location
- PC5.** check rigging gears installed to the tripod for their adequate locking
- PC6.** shift and place winch to the specified location as per agreed work plan
- PC7.** conduct checks on wire rope attached to the winch and tripod for its safe working condition and lubrication
- PC8.** check locking of boring chisel to the pulling cable and repair if any deviation observed

Conduct the excavation of storage tanks/ pits and install pumps for use during piling operation

To be competent, the user/individual on the job must be able to:

- PC9.** confirm the layout of excavation for storage tank/pit as per agreed work plan
- PC10.** conduct excavation of tanks/ pits at specified locations as per agreed work plan or instructions
- PC11.** ensure excavated pit dimension and slope are as per work plan
- PC12.** ensure proper slope is provided in excavation
- PC13.** ensure desired functioning of pumps used for piling operation
- PC14.** conduct installation of pumps at specified locations as per instruction or agreed work plan
- PC15.** carry out laying and connection of hose and ensure its water tightness
- PC16.** confirm electrification of pumps from specified electrical outlets
- PC17.** carry out trial run of pumps and ensure uninterrupted discharge at specified location



- PC18.** ensure erection of barrication, ensure erection of barricades and safety signages surrounding the excavated pit

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard procedure for rigging works
- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials required for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** precautions and measures required in the lifting and movement of heavy components and materials
- KU5.** service request procedures for tools, materials and equipment as per organizational norms
- KU6.** statutory compliance requirements related to working at height
- KU7.** basic sketches / schematic working drawing relevant to rigging works
- KU8.** basic principles of measurement, geometry and arithmetic calculation
- KU9.** linear, areal and cubic measurements with conversion of units (length and weight)
- KU10.** units of measurement
- KU11.** sequence of tripod erection in piling operation
- KU12.** rigging gears to be used at piling work and their safe working loads
- KU13.** sequence and standard practice of storing of piling material components as per their functional use
- KU14.** reference points provided by surveyor and their implication in pile construction
- KU15.** method of erection of piling tripods using its different components
- KU16.** selection and use of rigging gears in piling tripods and their maintenance during and post completion of work
- KU17.** checks to be carried out at different rigging gears to ascertain their usability
- KU18.** brief about agreed work plan and logistic plan
- KU19.** standard procedure of excavation and checks to be carried out to ensure the acceptability of the same
- KU20.** capacity and types of pumps used for piling works
- KU21.** correct method of setting up pumps and its accessories as per work plan
- KU22.** basic pumps defects and their causes, checks and remedies
- KU23.** specification of pumps to be used for fluid discharge required for piling operation
- KU24.** electrical connection required for pumps and electrical safety norms to be followed during working with pumps
- KU25.** calculation related to arithmetic, geometry and their applications in work

Generic Skills (GS)

User/individual on the job needs to know how to:



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- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local languages at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Conduct erection and installation of piling tripod stand and related equipment</i>	15	35	-	-
PC1. ensure proper working condition of rigging gears, tools, components and materials required to erect piling tripod	-	-	-	-
PC2. carryout shifting of rigging gears, components and ensure their proper stacking at specified locations	-	-	-	-
PC3. confirm centre point of boring location/ pile point by carrying out necessary measurements from reference points	-	-	-	-
PC4. conduct assembling and erection of piling tripods at the specified location and recheck the measurements to confirm its exact location	-	-	-	-
PC5. check rigging gears installed to the tripod for their adequate locking	-	-	-	-
PC6. shift and place winch to the specified location as per agreed work plan	-	-	-	-
PC7. conduct checks on wire rope attached to the winch and tripod for its safe working condition and lubrication	-	-	-	-
PC8. check locking of boring chisel to the pulling cable and repair if any deviation observed	-	-	-	-
<i>Conduct the excavation of storage tanks/ pits and install pumps for use during piling operation</i>	15	35	-	-
PC9. confirm the layout of excavation for storage tank/pit as per agreed work plan	-	-	-	-
PC10. conduct excavation of tanks/ pits at specified locations as per agreed work plan or instructions	-	-	-	-
PC11. ensure excavated pit dimension and slope are as per work plan	-	-	-	-
PC12. ensure proper slope is provided in excavation	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC13. ensure desired functioning of pumps used for piling operation	-	-	-	-
PC14. conduct installation of pumps at specified locations as per instruction or agreed work plan	-	-	-	-
PC15. carry out laying and connection of hose and ensure its water tightness	-	-	-	-
PC16. confirm electrification of pumps from specified electrical outlets	-	-	-	-
PC17. carry out trial run of pumps and ensure uninterrupted discharge at specified location	-	-	-	-
PC18. ensure erection of barrication, ensure erection of barricades and safety signages surrounding the excavated pit	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0721
NOS Name	Conduct preparatory works for conventional RCC pile boring operation
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Rigging
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	21/09/2021
Next Review Date	21/09/2025



CON/N0722: Carry out pile boring using winch machine

Description

This unit describes the skills and knowledge required to carry out pile boring using winch machine

Scope

The scope covers the following :

- Operate winch machine and carry out boring by chisel

Elements and Performance Criteria

Operate winch machine and carry out boring by chisel

To be competent, the user/individual on the job must be able to:

- PC1.** ensure that the electrical connections provided are proper and safe as per requirement
- PC2.** check drum, rope, limit switch and locking of winch with its base prior to start lifting
- PC3.** Provide proper counter weights to the winch machine and ensure its stability
- PC4.** lift the load using winch and release the same as per the signal provided from the concerned personnel
- PC5.** control speed of lifting and lowering load while operating winch safely as per standard practice
- PC6.** carry out initial boring up to specified depth
- PC7.** ensure appropriate placing and orientation of temporary guide casing in the pile borehole
- PC8.** carry out boring to desired depth as per superior's instruction
- PC9.** carry out lubrication and basic maintenance of the winch machine and other equipment at regular interval
- PC10.** ensure proper illumination during operation of winch at night
- PC11.** report timely to concerned authority for required support in case of any adverse situation during operation
- PC12.** ensure proper barricade is provided surrounding the winch, pulling cable and boring location

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard procedure for rigging works
- KU2.** safety rules and regulations for handling and storing relevant tools and equipment and materials for rigging works
- KU3.** personal protection including the use of the related safety gears and equipment
- KU4.** precautions and measures required in the lifting and movement of heavy components and materials
- KU5.** service request procedures for tools, materials and equipments



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- KU6.** statutory compliance requirements related to working at height
- KU7.** basic sketches / schematic working drawing relevant to rigging works
- KU8.** basic principles of measurement, geometry and arithmetic calculation
- KU9.** linear, areal and cubic measurements with conversion of units (length and weight)
- KU10.** units of measurement
- KU11.** mechanical specification of winch machine
- KU12.** electrical specification of winch machine
- KU13.** safe working load of winch machine under use
- KU14.** working mechanism of pulley, drum, brakes and motor under operation
- KU15.** lifting and lowering speed to be kept while driving auger for boring
- KU16.** checks to be done to determine proper functioning of accessories and safety devices installed to the winch
- KU17.** standard procedure of operating winch machine while carrying out boring
- KU18.** periodical maintenance of winch machine and other equipment
- KU19.** counter load, base etc. to be provided to the winch for its stability
- KU20.** sequencing of release and lifting load
- KU21.** factors affecting load lifting such as illumination, weather condition, signaling, etc. and their ideal condition to be maintained while operating winch
- KU22.** desired depth of boring as per specification of pile

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local languages at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Operate winch machine and carry out boring by chisel</i>	30	70	-	-
PC1. ensure that the electrical connections provided are proper and safe as per requirement	-	-	-	-
PC2. check drum, rope, limit switch and locking of winch with its base prior to start lifting	-	-	-	-
PC3. Provide proper counter weights to the winch machine and ensure its stability	-	-	-	-
PC4. lift the load using winch and release the same as per the signal provided from the concerned personnel	-	-	-	-
PC5. control speed of lifting and lowering load while operating winch safely as per standard practice	-	-	-	-
PC6. carry out initial boring up to specified depth	-	-	-	-
PC7. ensure appropriate placing and orientation of temporary guide casing in the pile borehole	-	-	-	-
PC8. carry out boring to desired depth as per superior's instruction	-	-	-	-
PC9. carry out lubrication and basic maintenance of the winch machine and other equipment at regular interval	-	-	-	-
PC10. ensure proper illumination during operation of winch at night	-	-	-	-
PC11. report timely to concerned authority for required support in case of any adverse situation during operation	-	-	-	-
PC12. ensure proper barrication is provided surrounding the winch, pulling cable and boring location	-	-	-	-
NOS Total	30	70	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0722
NOS Name	Carry out pile boring using winch machine
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Rigging
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	21/09/2021
Next Review Date	21/09/2025



CON/N0723: Carry out arc welding on the reinforcement steel bars for extension of pile cage

Description

This unit describes the skills and knowledge required to carry out welding operations on the reinforcement steel bars of the pile cage

Scope

The scope covers the following :

- Carry out preparatory works for welding operations
- Perform welding on the reinforcement steel bars of the pile cage

Elements and Performance Criteria

Carry out preparatory works for welding operations

To be competent, the user/individual on the job must be able to:

- PC1.** identify the location for welding
- PC2.** setup the welding machine as per requirement
- PC3.** connect work clamps in correct polarity
- PC4.** ensure that cables do not cause interference in welding
- PC5.** check that the welding electrodes available are as per the required specification
- PC6.** check that base metal/ joints are properly clamped and secured against movement in order to perform required welding operation
- PC7.** remove any oil, paints or rust from the joint and its vicinity

Perform welding on the reinforcement steel bars of the pile cage

To be competent, the user/individual on the job must be able to:

- PC8.** connect welding machine to the specified electrical outlet and power it on as per work requirement
- PC9.** check that electrical cables from the machine are insulated and terminated properly at the electrical outlets
- PC10.** adjust the current and electrode feed rate as per the welding requirements
- PC11.** strike the arc correctly without causing defects
- PC12.** maintain proper electrode extension length to avoid defects
- PC13.** hold reinforcement steel cages together at right places in order to start welding process
- PC14.** select suitable body position for welding the steel bar joints/ overlaps
- PC15.** carry out fillet welding in steel bars for required length only, ensuring no damage is caused to the bars
- PC16.** check and ensure smoothness of fillet weld all through the length of weld
- PC17.** finish the welding as per work requirement and applicable quality plan
- PC18.** carry out rectification and repairing if fault is detected in welding as per standard practice
- PC19.** power off welding machine and isolate from electrical outlets



- PC20.** store welding machine and its accessories safely and secure them against any external damaging effects

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard procedure for rigging works
- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials required for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears and equipment in accordance with organizational norms
- KU4.** precautions and measures required in the lifting and movement of heavy components and materials
- KU5.** service request procedures for tools, materials and equipment as per organizational norms
- KU6.** statutory compliance requirements related to working at height
- KU7.** basic sketches / schematic working drawing relevant to rigging works
- KU8.** basic principles of measurement, geometry and arithmetic calculation
- KU9.** linear, areal and cubic measurements with conversion of units (length and weight)
- KU10.** parameters and specification of the reinforcement bars which are suitable for welding operation
- KU11.** basic concept of reinforcement work and piling work
- KU12.** common welding terminologies and parameters
- KU13.** calibration of various welding instruments and tools
- KU14.** techniques for surface preparation
- KU15.** preparation of joint for welding operation
- KU16.** concept of Shielded metal arc welding (SMAW) process
- KU17.** polarity required for welding work
- KU18.** environmental/ work area condition and ergonomic position suitable for the welding operation

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local languages at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters



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- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory works for welding operations</i>	9	21	-	-
PC1. identify the location for welding	-	-	-	-
PC2. setup the welding machine as per requirement	-	-	-	-
PC3. connect work clamps in correct polarity	-	-	-	-
PC4. ensure that cables do not cause interference in welding	-	-	-	-
PC5. check that the welding electrodes available are as per the required specification	-	-	-	-
PC6. check that base metal/ joints are properly clamped and secured against movement in order to perform required welding operation	-	-	-	-
PC7. remove any oil, paints or rust from the joint and its vicinity	-	-	-	-
<i>Perform welding on the reinforcement steel bars of the pile cage</i>	15	35	-	-
PC8. connect welding machine to the specified electrical outlet and power it on as per work requirement	-	-	-	-
PC9. check that electrical cables from the machine are insulated and terminated properly at the electrical outlets	-	-	-	-
PC10. adjust the current and electrode feed rate as per the welding requirements	-	-	-	-
PC11. strike the arc correctly without causing defects	-	-	-	-
PC12. maintain proper electrode extension length to avoid defects	-	-	-	-
PC13. hold reinforcement steel cages together at right places in order to start welding process	-	-	-	-
PC14. select suitable body position for welding the steel bar joints/ overlaps	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. carry out fillet welding in steel bars for required length only, ensuring no damage is caused to the bars	-	-	-	-
PC16. check and ensure smoothness of fillet weld all through the length of weld	-	-	-	-
PC17. finish the welding as per work requirement and applicable quality plan	-	-	-	-
PC18. carry out rectification and repairing if fault is detected in welding as per standard practice	-	-	-	-
PC19. power off welding machine and isolate from electrical outlets	-	-	-	-
PC20. store welding machine and its accessories safely and secure them against any external damaging effects	-	-	-	-
NOS Total	24	56	-	-



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National Occupational Standards (NOS) Parameters

NOS Code	CON/N0723
NOS Name	Carry out arc welding on the reinforcement steel bars for extension of pile cage
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Rigging
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	21/09/2021
Next Review Date	21/09/2025



CON/N0724: Conduct pile boring and concreting activity

Description

This unit describes the skills and knowledge required to coordinate pile boring and concreting activities

Scope

The scope covers the following :

- Coordinate the soil boring activities
- Lower down the reinforcement Steel Cage into the borehole using lifting equipment
- Ensure proper flushing of the borehole using bentonite slurry
- Coordinate pile concreting activities

Elements and Performance Criteria

Coordinate the soil boring activities

To be competent, the user/individual on the job must be able to:

- PC1.** establish reference points at four locations (making two lines perpendicular to each other) by wooden pegs or other suitable means in order to relocate the co-ordinate of pile centre provided by the surveyor as and when necessary
- PC2.** carry out necessary linear measurements from the reference points to ascertain the exact location of the guide casing pipe
- PC3.** instruct subordinates for suitable adjustments in casing pipe for proper alignment prior to start of boring
- PC4.** coordinate shifting and stacking of bentonite powder bags at specified location
- PC5.** ensure bentonite slurry preparation is as per specification
- PC6.** ensure smooth circulation of bentonite slurry from the tank to the borehole as per requirement
- PC7.** ensure that the test samples for viscosity and pH value test of bentonite is delivered to quality laboratory
- PC8.** confirm that the boring is done up to the required depth and stable soil condition is achieved in the borehole
- PC9.** carry out under reaming at the base of borehole if applicable, using specified tool of appropriate diameter according to pile diameter
- PC10.** select and use proper tools for cutting bulb of required diameter in the bottom of borehole
- PC11.** ensure implementation of the applicable safety norms by subordinates at the work location
- PC12.** report to seniors clearly and concisely regarding any deviation and hazards observed during boring activity

Lower down the reinforcement Steel Cage into the borehole using lifting equipment

To be competent, the user/individual on the job must be able to:

- PC13.** check reinforcement steel cages for physical condition, diameter, spacing, bends, cover blocks as per instructions or relevant specifications
- PC14.** coordinate with respective authorities if any deviation is observed in reinforcement steel works



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- PC15.** anchor reinforcement cages using appropriate rigging gears in order to shift them to piling location
- PC16.** monitor shifting of reinforcement cages by subordinates using lifting equipments
- PC17.** carry out lowering of reinforcement cages up to desired depth in to borehole
- PC18.** ensure proper placement of the reinforcement cage into the borehole as per instructions and specifications

Ensure proper flushing of the borehole using bentonite slurry

To be competent, the user/individual on the job must be able to:

- PC19.** check the assembly of tremie pipes for proper locking, depth level inside the borehole and water tightness in order to ensure smooth flushing activity
- PC20.** check bentonite slurry visually for its homogeneity and workability prior to application
- PC21.** ensure water tightness of hoses, pipes and pumps used for flushing activity
- PC22.** monitor inflow and outflow of bentonite slurry during activity
- PC23.** ensure cleaning of muck, sludge which comes out from borehole during flushing
- PC24.** report to superior on completion of flushing activity and on observing any deviation for further actions

Coordinate pile concreting activities

To be competent, the user/individual on the job must be able to:

- PC25.** check concrete visually for its desired slump and workability during pile concreting work
- PC26.** ensure continuity in concreting works by coordinating with respective departments
- PC27.** ensure tremie pipe is sufficiently inserted in the green concrete during concreting activity
- PC28.** continue concreting up to specified height above the cut off level
- PC29.** ensure cleaning of all material and components used for flushing and concreting work and stack them appropriately at specified location

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard procedure for rigging works
- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials required for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** precautions and measures required in the lifting and movement of heavy components and materials
- KU5.** service request procedures for tools, materials and equipment as per organizational norms
- KU6.** statutory compliance requirements related to working at height
- KU7.** basic sketches / schematic working drawing relevant to rigging works
- KU8.** basic principles of measurement, geometry and arithmetic calculation
- KU9.** linear, areal and cubic measurements with conversion of units (length and weight)
- KU10.** reference points provided by surveyor and their implication in pile construction
- KU11.** diameter of the casing pipe to be used as per the pile specifications
- KU12.** function of casing pipe in pile boring activity



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- KU13.** how to ensure proper alignment and orientation of casing pipe by carrying out required measurements from given reference points
- KU14.** sequential steps involved in boring of piles
- KU15.** physical properties of bentonite powder and its use in piling works
- KU16.** application of bentonite powder in piling procedure, its sequence and desired physical state during application
- KU17.** checks to be undertaken to the pumps, hoses and their accessories in order to ensure smooth circulation of bentonite slurry
- KU18.** common tests which are to be undertaken for bentonite slurry and their implications in soil stabilization/ piling work
- KU19.** checks to be done for stabilization of soil in borehole and completion of boring activity
- KU20.** basic idea of pH value and viscosity and their tests related to bentonite slurry
- KU21.** how to join tremie pipes and ensure water tightness
- KU22.** pumping and discharge pressure of bentonite slurry in to the borehole for flushing
- KU23.** checks to be done for stabilization and cleaning of borehole and completion of flushing activity
- KU24.** required slump of concrete to be used for concrete as per agreed work plan
- KU25.** quality measures to be taken if concreting process gets interrupted
- KU26.** do's and don'ts to achieve desired slump and workability of concrete
- KU27.** technique of pile concreting work such as vertical oscillation of tremie pipes and concrete feeding hopper during concreting work and its importance, rate of concrete pouring, final level of RCC to be kept above cut off level

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local languages at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Coordinate the soil boring activities</i>	12	28	-	-
PC1. establish reference points at four locations (making two lines perpendicular to each other) by wooden pegs or other suitable means in order to relocate the co-ordinate of pile centre provided by the surveyor as and when necessary	-	-	-	-
PC2. carry out necessary linear measurements from the reference points to ascertain the exact location of the guide casing pipe	-	-	-	-
PC3. instruct subordinates for suitable adjustments in casing pipe for proper alignment prior to start of boring	-	-	-	-
PC4. coordinate shifting and stacking of bentonite powder bags at specified location	-	-	-	-
PC5. ensure bentonite slurry preparation is as per specification	-	-	-	-
PC6. ensure smooth circulation of bentonite slurry from the tank to the borehole as per requirement	-	-	-	-
PC7. ensure that the test samples for viscosity and pH value test of bentonite is delivered to quality laboratory	-	-	-	-
PC8. confirm that the boring is done up to the required depth and stable soil condition is achieved in the borehole	-	-	-	-
PC9. carry out under reaming at the base of borehole if applicable, using specified tool of appropriate diameter according to pile diameter	-	-	-	-
PC10. select and use proper tools for cutting bulb of required diameter in the bottom of borehole	-	-	-	-
PC11. ensure implementation of the applicable safety norms by subordinates at the work location	-	-	-	-
PC12. report to seniors clearly and concisely regarding any deviation and hazards observed during boring activity	-	-	-	-



Qualification Pack



Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Lower down the reinforcement Steel Cage into the borehole using lifting equipment</i>	8	17	-	-
PC13. check reinforcement steel cages for physical condition, diameter, spacing, bends, cover blocks as per instructions or relevant specifications	-	-	-	-
PC14. coordinate with respective authorities if any deviation is observed in reinforcement steel works	-	-	-	-
PC15. anchor reinforcement cages using appropriate rigging gears in order to shift them to piling location	-	-	-	-
PC16. monitor shifting of reinforcement cages by subordinates using lifting equipments	-	-	-	-
PC17. carry out lowering of reinforcement cages up to desired depth in to borehole	-	-	-	-
PC18. ensure proper placement of the reinforcement cage into the borehole as per instructions and specifications	-	-	-	-
<i>Ensure proper flushing of the borehole using bentonite slurry</i>	5	15	-	-
PC19. check the assembly of tremie pipes for proper locking, depth level inside the borehole and water tightness in order to ensure smooth flushing activity	-	-	-	-
PC20. check bentonite slurry visually for its homogeneity and workability prior to application	-	-	-	-
PC21. ensure water tightness of hoses, pipes and pumps used for flushing activity	-	-	-	-
PC22. monitor inflow and outflow of bentonite slurry during activity	-	-	-	-
PC23. ensure cleaning of muck, sludge which comes out from borehole during flushing	-	-	-	-
PC24. report to superior on completion of flushing activity and on observing any deviation for further actions	-	-	-	-
<i>Coordinate pile concreting activities</i>	5	10	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC25. check concrete visually for its desired slump and workability during pile concreting work	-	-	-	-
PC26. ensure continuity in concreting works by coordinating with respective departments	-	-	-	-
PC27. ensure tremie pipe is sufficiently inserted in the green concrete during concreting activity	-	-	-	-
PC28. continue concreting up to specified height above the cut off level	-	-	-	-
PC29. ensure cleaning of all material and components used for flushing and concreting work and stack them appropriately at specified location	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack



National Occupational Standards (NOS) Parameters

NOS Code	CON/N0724
NOS Name	Conduct pile boring and concreting activity
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Rigging
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	21/09/2021
Next Review Date	21/09/2025



CON/N8001: 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

The scope covers the following :

- Interact and communicate in an effective manner
- Support co-workers to execute the project requirements
- Practice inclusion

Elements and Performance Criteria

Interact and communicate in an effective manner

To be competent, the user/individual on the job must be able to:

- PC1.** pass on work related information/ requirement clearly to the team members
- PC2.** inform co-workers and superiors about any kind of deviations from work
- PC3.** report any unresolved problem to the supervisor immediately
- PC4.** obtain instructions from superiors and respond on the same
- PC5.** communicate to team members/subordinates for appropriate work technique and method
- PC6.** seek clarification and advice as per the requirement

Support co-workers to execute the project requirements

To be competent, the user/individual on the job must be able to:

- PC7.** hand over the required material, tools, tackles, equipment and work fronts timely to interfacing teams
- PC8.** work together with co-workers in a synchronized manner

Practice inclusion

To be competent, the user/individual on the job must be able to:

- PC9.** maintain cultural inclusivity at work place
- PC10.** maintain disability friendly work practices
- PC11.** follow gender neutral practices at workplace
- PC12.** address discriminatory and offensive behaviour in a professional manner as per organizational policy

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** own roles and responsibilities
- KU2.** importance of effective communication



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- KU3.** the consequence of poor teamwork on project outcomes, timelines, safety at the construction site, etc.
- KU4.** different modes of communication used at workplace
- KU5.** importance of creating healthy and cooperative work environment among the gangs of workers
- KU6.** different activities within the work area where interaction with other workers is required
- KU7.** applicable techniques of work, properties of materials used, tools and tackles used, safety standards that co-workers might need as per the requirement
- KU8.** importance of proper and effective communication and the expected adverse effects in case of failure relating to quality, timeliness, safety, risks at the construction project site
- KU9.** importance and need of supporting co-workers facing problems for the smooth functioning of work
- KU10.** the fundamental concept of gender equality
- KU11.** how to recognise and be sensitive to issues of disability, culture and gender
- KU12.** legislation, policies, and procedures relating to gender sensitivity and cultural diversity including their impact on the area of operation

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read the communication regarding work completion, materials used, tools and tackles used, the resource required, etc,
- GS3.** speak in one or more languages, preferably in one of the local language of the site
- GS4.** listen and follow instructions / communication shared by superiors/ co-workers regarding team requirements or interfaces during work processes
- GS5.** communicate orally and effectively with co-workers considering their educational and social background
- GS6.** decide on what information is to be shared with co-workers within the team or to the interfacing gang of workers
- GS7.** plan work and organize the required resources in coordination with team members
- GS8.** complete all assigned task in coordination with team members
- GS9.** take initiative in resolving issues among co-workers or report the same to superiors
- GS10.** ensure best ways of coordination among team members
- GS11.** evaluate the complexity of task and determine if any guidance is required from superiors

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Interact and communicate in an effective manner</i>	18	42	-	-
PC1. pass on work related information/ requirement clearly to the team members	-	-	-	-
PC2. inform co-workers and superiors about any kind of deviations from work	-	-	-	-
PC3. report any unresolved problem to the supervisor immediately	-	-	-	-
PC4. obtain instructions from superiors and respond on the same	-	-	-	-
PC5. communicate to team members/subordinates for appropriate work technique and method	-	-	-	-
PC6. seek clarification and advice as per the requirement	-	-	-	-
<i>Support co-workers to execute the project requirements</i>	6	14	-	-
PC7. hand over the required material, tools, tackles, equipment and work fronts timely to interfacing teams	-	-	-	-
PC8. work together with co-workers in a synchronized manner	-	-	-	-
<i>Practice inclusion</i>	6	14	-	-
PC9. maintain cultural inclusivity at work place	-	-	-	-
PC10. maintain disability friendly work practices	-	-	-	-
PC11. follow gender neutral practices at workplace	-	-	-	-
PC12. address discriminatory and offensive behaviour in a professional manner as per organizational policy	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack



National Occupational Standards (NOS) Parameters

NOS Code	CON/N8001
NOS Name	Work effectively in a team to deliver desired results at the workplace
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic 2
NSQF Level	4
Credits	TBD
Version	6.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N8002: 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

The scope covers the following :

- Plan and prepare for work
- Organise required resources as per work plan
- Complete work as per the plan

Elements and Performance Criteria

Plan and prepare for work

To be competent, the user/individual on the job must be able to:

- PC1.** identify the targets and timelines set by superiors
- PC2.** determine the work requirements corresponding to task(drawings/schedules/instructions/methodology), safety, tools and equipment prior to commencement of task
- PC3.** plan the work by analyzing the required outcomes, work procedures, allotted time, resource availability and known priorities
- PC4.** prepare the work areas in coordination with team members
- PC5.** plan for waste collection and disposal prior to and after completion of work

Organise required resources as per work plan

To be competent, the user/individual on the job must be able to:

- PC6.** arrange the required manpower prior to commencement of work
- PC7.** organize the required materials, tools and tackles required for the task

Complete work as per the plan

To be competent, the user/individual on the job must be able to:

- PC8.** engage allocated manpower in an appropriate manner
- PC9.** employ correct tools, tackles and equipment for the desired work
- PC10.** provide guidance to the subordinates to obtain desired outcome
- PC11.** use resources in an optimum manner to avoid any unnecessary wastage
- PC12.** use tools, tackles and equipment carefully to avoid damage
- PC13.** ensure the work processes adopted are in line with the specified standards and instructions
- PC14.** complete the work with the allocated resources within specified time
- PC15.** clean and organise the workplace after completion of task

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:



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- KU1.** importance of proper housekeeping including safe waste disposal
- KU2.** policies, procedures and work targets set by superiors
- KU3.** how to identify work activities that need to be planned and organized
- KU4.** how to determine the task requirements
- KU5.** how to determine the quality requirements related to the task
- KU6.** how to undertake all aspect of planning and organizing the task, including interpretation of task, reading drawing/schedules, arranging resources, reporting problems etc.
- KU7.** how to implement the planned activities
- KU8.** how to use available resources in a judicious and appropriate manner to minimize wastages or damage

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** write in one or more language, preferably the local language at the site
- GS2.** read communication from co-workers, superiors and notices from other departments as per requirement of the level
- GS3.** speak in one or more language, preferably one of the local language at the site
- GS4.** follow communication shared by co-workers regarding standard work processes, resources available, timelines, etc.
- GS5.** communicate effectively with co-workers and subordinates
- GS6.** decide on what sequence is to be adopted for execution of work
- GS7.** plan and organize the materials, tools, tackles and equipment required to execute the work
- GS8.** complete all assigned task with proper planning and organizing
- GS9.** analyze areas of work which could result in a delay of work, wastage of material or damage to tools and tackles
- GS10.** evaluate potential solutions to minimize avoidable delays and wastages at the construction site



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Plan and prepare for work</i>	9	21	-	-
PC1. identify the targets and timelines set by superiors	-	-	-	-
PC2. determine the work requirements corresponding to task(drawings/schedules/instructions/methodology), safety, tools and equipment prior to commencement of task	-	-	-	-
PC3. plan the work by analyzing the required outcomes, work procedures, allotted time, resource availability and known priorities	-	-	-	-
PC4. prepare the work areas in coordination with team members	-	-	-	-
PC5. plan for waste collection and disposal prior to and after completion of work	-	-	-	-
<i>Organise required resources as per work plan</i>	6	14	-	-
PC6. arrange the required manpower prior to commencement of work	-	-	-	-
PC7. organize the required materials, tools and tackles required for the task	-	-	-	-
<i>Complete work as per the plan</i>	15	35	-	-
PC8. engage allocated manpower in an appropriate manner	-	-	-	-
PC9. employ correct tools, tackles and equipment for the desired work	-	-	-	-
PC10. provide guidance to the subordinates to obtain desired outcome	-	-	-	-
PC11. use resources in an optimum manner to avoid any unnecessary wastage	-	-	-	-
PC12. use tools, tackles and equipment carefully to avoid damage	-	-	-	-
PC13. ensure the work processes adopted are in line with the specified standards and instructions	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. complete the work with the allocated resources within specified time	-	-	-	-
PC15. clean and organise the workplace after completion of task	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack



National Occupational Standards (NOS) Parameters

NOS Code	CON/N8002
NOS Name	Plan and organize work to meet expected outcomes
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic 2
NSQF Level	4
Credits	TBD
Version	5.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N9001: Work according to personal health, safety and environment protocols at construction site

Description

This NOS covers the skill and knowledge required for an individual to work according to personal health, safety and environmental protocols at construction site

Scope

The scope covers the following :

- Follow safety norms as defined by organization
- Adopt healthy & safe work practices
- Implement good housekeeping and environment protection process and activities
- Follow infection control guidelines as per applicability

Elements and Performance Criteria

Follow safety norms as defined by the organization

To be competent, the user/individual on the job must be able to:

- PC1.** identify and report any hazards, risks or breaches in site safety to the appropriate authority
- PC2.** follow emergency and evacuation procedures in case of accidents, fires, natural calamities
- PC3.** follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable
- PC4.** follow all the protocols and safety techniques conveyed during safety awareness programs like Tool Box Talks, safety demonstrations and mock drills conducted at the site
- PC5.** select and operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline
- PC6.** identify near miss, unsafe condition and unsafe act

Adopt healthy & safe work practices

To be competent, the user/individual on the job must be able to:

- PC7.** use appropriate Personal Protective Equipment (PPE) as per work requirements for : Head Protection, Ear protection, Fall Protection ,Foot Protection, Face and Eye Protection, Hand and Body Protection , and Respiratory Protection (if required)
- PC8.** handle all required tools, tackles, materials and equipment safely
- PC9.** follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines
- PC10.** check and install all safety equipment as per standard guidelines
- PC11.** follow safety protocols and practices as laid down by site EHS department
- PC12.** obtain "height pass" clearance for working at heights

Implement good housekeeping practices

To be competent, the user/individual on the job must be able to:

- PC13.** collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature
- PC14.** apply ergonomic principles wherever required



Follow infection control guidelines as per applicability

To be competent, the user/individual on the job must be able to:

PC15. follow recommended personal hygiene, workplace hygiene and sanitization practices

PC16. clean and disinfect all materials, tools and supplies before and after use

PC17. report immediately to concerned authorities regarding signs and symptoms of illness of self and others

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. reporting procedures in cases of breaches or hazards for site safety, accidents, and emergency situations as per guidelines

KU2. types of safety hazards at construction sites

KU3. basic ergonomic principles as per applicability

KU4. the procedure for responding to accidents and other emergencies at site

KU5. use of appropriate personal protective equipment based on various working conditions

KU6. importance of handling tools, equipment, and materials as per applicable norms

KU7. effect of construction material on health and environments as per applicability

KU8. various environmental protection methods as per applicability

KU9. storage of waste including non-combustible scrap material and debris, combustible scrap material and debris, general construction waste and trash (non-toxic, non-hazardous), any other hazardous wastes and any other flammable wastes at the appropriate location

KU10. how to keep the workplace neat and tidy so as to be safe

KU11. how to use hazardous material in a safe and appropriate manner as per applicability

KU12. types of fire

KU13. procedure of operating different types of fire extinguishers

KU14. safety relevant to tools, tackles, and equipment as per applicability

KU15. housekeeping activities relevant to task

KU16. ways of transmission of infection

KU17. ways to manage infectious risks at the workplace

KU18. different methods of cleaning, disinfection, sterilization, and sanitization

KU19. symptoms of infection like fever, cough, redness, swelling, and inflammation

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. write in at least one language, preferably in the local language of the site

GS2. fill safety formats for near miss, unsafe conditions and safety suggestions

GS3. read in one or more language, preferably in the local language of the site

GS4. speak in one or more language, preferably in one of the local language of the site

GS5. listen to instructions/communication shared by site EHS and superiors regarding site safety, and conducting the toolbox talk



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- GS6.** identify potential safety risks and report to the appropriate authority
- GS7.** assess and analyze areas which may affect health, safety and environment protocol on the site



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Follow safety norms as defined by the organization</i>	6	14	-	-
PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority	-	-	-	-
PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities	-	-	-	-
PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable	-	-	-	-
PC4. follow all the protocols and safety techniques conveyed during safety awareness programs like Tool Box Talks, safety demonstrations and mock drills conducted at the site	-	-	-	-
PC5. select and operate different types of fire extinguishers corresponding to various types of fires as per EHS guideline	-	-	-	-
PC6. identify near miss, unsafe condition and unsafe act	-	-	-	-
<i>Adopt healthy & safe work practices</i>	15	35	-	-
PC7. use appropriate Personal Protective Equipment (PPE) as per work requirements for : Head Protection, Ear protection, Fall Protection ,Foot Protection, Face and Eye Protection, Hand and Body Protection , and Respiratory Protection (if required)	-	-	-	-
PC8. handle all required tools, tackles, materials and equipment safely	-	-	-	-
PC9. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines	-	-	-	-
PC10. check and install all safety equipment as per standard guidelines	-	-	-	-
PC11. follow safety protocols and practices as laid down by site EHS department	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. obtain "height pass" clearance for working at heights	-	-	-	-
<i>Implement good housekeeping practices</i>	6	14	-	-
PC13. collect, segregate and deposit construction waste into appropriate containers based on their toxicity or hazardous nature	-	-	-	-
PC14. apply ergonomic principles wherever required	-	-	-	-
<i>Follow infection control guidelines as per applicability</i>	3	7	-	-
PC15. follow recommended personal hygiene, workplace hygiene and sanitization practices	-	-	-	-
PC16. clean and disinfect all materials, tools and supplies before and after use	-	-	-	-
PC17. report immediately to concerned authorities regarding signs and symptoms of illness of self and others	-	-	-	-
NOS Total	30	70	-	-



National Occupational Standards (NOS) Parameters

NOS Code	CON/N9001
NOS Name	Work according to personal health, safety and environment protocols at construction site
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic Safety
NSQF Level	4
Credits	TBD
Version	6.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC)/ Element 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/ Element.
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.



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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.

Minimum Aggregate Passing % at QP Level : 70

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Minimum Passing % at NOS Level: 70

(Please note: A Trainee must score the minimum percentage for each NOS separately as well as on the QP as a whole.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0721.Oversee preparatory works for conventional RCC pile boring operation	30	70	-	-	100	14
CON/N0722.Carry out pile boring using winch machine	30	70	-	-	100	22
CON/N0723.Carry out arc welding to the reinforcement steel for extension of pile cage	24	56	-	-	80	18
CON/N0724.Conduct pile boring and concreting activity	30	70	-	-	100	16
CON/N8001.Work effectively in a team to deliver desired results at the workplace	30	70	-	-	100	8



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National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N8002.Plan and organize work to meet expected outcomes	30	70	-	-	100	10
CON/N9001.Work according to personal health, safety and environment protocols at construction site	30	70	-	-	100	12
Total	204	476	-	-	680	100



Qualification Pack



Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training



Glossary

Sector	Sector is a 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 organisation.
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 (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a 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 quality of performance required.
Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.



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Organisational Context	Organisational context includes the way the organisation 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 (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment 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.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.