Attachment 1-A

Work Process Schedule
Construction Craft Laborer (CCL)
O*NET-SOC CODE: 47-2061.00 **RAPIDS CODE:** 0661R

This schedule is attached to and a part of these Standards for the above identified occupation.

1. **TERM OF APPRENTICESHIP**
The term of the occupation shall be approximately two years with an on-the-job learning (OJL) attainment of 4000 hours supplemented by 320 hours of related instruction.

2. **RATIO OF APPRENTICES TO JOURNEYWORKERS**

See section XIV of CCL Standards.

3. **APPRENTICE WAGE SCHEDULE**

Apprentices shall be paid a progressively increasing schedule of wages based on a percentage of the current journeyworker wage rate, or as per the CBA

	% of the journeyworker rate
0 - 500 hours	50%
501 – 1000hours	60%
1001 - 2000 hours	70%
2001 - 3000 hours	80%
3001 - 4000 hours	90%

4. **SCHEDULE OF WORK EXPERIENCE** (Appendix A)
JATCs may modify the work experience to meet local industry, employer and/or labor needs prior to submitting these Standards to the appropriate Registration Agency for approval. All apprentices without documented proof of experience will attain a minimum total of 4000 hours of OJL. This total will consist of a minimum 2000 OJL hours for CCL core work experience and a minimum of 2000 OJL hours in one or more CCL areas of concentration. The CCL areas of concentration will be determined by the JATC assessment of industry, employer and/or labor needs.

5. **SCHEDULE OF RELATED INSTRUCTION** (Appendix B)
All apprentices will complete a minimum total of 320 hours of related training. This total will consist of a minimum 175 hours of related instruction for CCL core skills, and a minimum 145 hours of related instruction for CCL areas of concentration. JATCs may modify the related instruction to meet local industry; employer and/or labor needs prior to submitting these Standards to the appropriate Registration Agency for approval, but total training hour requirements will remain the same.

WORK EXPERIENCE AND RELATED TRAINING – PREFACE

The CCL works in a high performance driven industry, on a wide variety of jobs. CCLs build, renovate and demolish structures such as high rises, power plants, shopping centers, office complexes, and medical facilities; build, renovate and demolish infrastructure such as roads, bridges, locks, dams and tunnels; build, renovate and demolish utilities including pipelines, treatment plants and delivery systems, power generation and distribution facilities and telecommunications; CCLs build, maintain, repair, renovate and demolish parks, recreation areas, and cemeteries; and CCLs remediate several kinds of hazardous materials including hazardous waste, asbestos and lead.

CCLs perform many tasks on these projects, including clearing for roads and buildings; installing water and sewer lines; placing concrete and asphalt; building and maintaining scaffolding; operating equipment; mixing concrete, plaster and mortar; cutting and burning metal; surveying and measuring; signaling, hoisting and rigging loads; digging, planting, trimming and maintaining shrubbery and trees; installing, maintaining and expanding fencing; and estimating, preparing, stocking and supplying materials to other trades.

To perform these tasks, CCLs operate a variety of equipment including chainsaws, soil compactors, compressors and pneumatic tools; a variety of mixers for concrete and masonry work; oxy-fuel and plasma arc cutting equipment; mechanical hoists, rough terrain forklifts, skid steers, aerial lifts, survey equipment including GPS and Total Station; and a large number of hand and power tools. In general, the skills used by CCLs represent competencies in managing and understanding resources, information technology systems, and interpersonal relations.

This variety of skill sets has defined the Laborers' International Union of North America (LIUNA) and the Laborers' trade since 1903. Over the years, in partnership with employers on local, state and national levels LIUNA established world-class, labor-management training funds. In 1994 LIUNA established and received Federal DOL OA approval for the first national CCL apprenticeship program.

LIUNA is known as the first trade on the job and the last trade to leave a project. CCLs possess a wide range of skill sets that cut across a variety of industries. As an example, a Laborer could be dispatched to a concrete crew working on a new high-rise in the building industry, only to be placed three (3) months later on a pipe crew working on a drainage system associated with highway industry.

At the same time, especially in larger metropolitan areas, generations of Laborers have spent entire careers in one "concentration" within the industry. For example, many Laborers find career-long employment building scaffolding, mixing mortar, tending masons, and running rough terrain forklifts for masonry contractors.

Employers, faced with challenges in technology, economy and regulations, look to apprenticeship to stabilize an already diminishing workforce. As a result employers are reluctant to displace apprentices after investing both time and resources in their professional development. Mobility of apprentices is further hindered by downturns in the construction industry as a whole or in individual industry concentrations. When jobs are scarce, any apprentice is fortunate to be employed much less have the ability to move from project to project.

Lastly, a key component of any apprenticeship program is the availability to access training opportunities before during and, more importantly, after an apprenticeship program. A life-long learning and training structure must be in place to ensure ongoing education and employment skills development. As apprentices move from foundational knowledge and skills to journeyworker status, training and education programs must be available to provide career pathways.

In an effort to address these issues, LIUNA through their international training organization, sought industry wide input of employers, labor, training and agency representatives to create a flexible structure that benefits the employer, labor, industry and most importantly the worker. As a result LIUNA's CCL Apprenticeship Program combines work experience and related instruction reflective of job site practices and is reactive to changes in the economy.

The CCL Apprenticeship Program Overview

LIUNA's CCL Apprenticeship Program consists of a minimum of 4000 hours of OJL and a minimum of 320 hours of Related Instruction. The program is divided into two parts: completion of 2000 hours of OJL in core skills and 175 hours of related training; and completion of 2000 hours of OJL in one or more areas of concentration and 145 hours of related training.

Part 1: All CCL apprentices will attain a set of core work competencies that will provide a foundation for movement through one or more areas of concentrations. The CCL Core Work Experience will consist of 2000 hours of OJL and a minimum of 160 hours of Related Instruction.

Part 2: In addition to completing the CCL core competency requirements, apprentices will be placed into one or more areas of concentration that span the construction and/or environmental remediation industries. The CCL apprenticeship program has defined eight (8) areas of concentration as potential pathways: Building Construction, Heavy/Highway and Utility Construction, Pipeline, Tunneling, Environmental Remediation, Masonry, Deconstruction/Demolition, and Landscaping. Placement in one or more areas of concentration will be dependent upon local need. The CCL Area of Concentration Work Experience will consist of 2000 hours of OJL and a minimum of 125 hours of Related Instruction.

Apprentices will have two (2) options to successfully complete the 2000 hours OJL requirement under the CCL Area of Concentration Work Experience.

Option 1: An apprentice will be placed into one area of concentration, completing a minimum of 2000 hours of OJL for the skills listed in that one concentration.

Example – The apprentice, based on local need, is placed in the Pipeline concentration. The apprentice satisfies 2000 hours of OJL and 175 hours of related training under the core requirements and 2000 hours of OJL and 145 hours of related training in the Pipeline concentration to gain the CCL required 4000 hours of OJL and 320 hours of related training.

Option 2: An apprentice will be placed into two or more areas of concentration. OJL hour requirements for this path are calculated by dividing 2000 hours by the number of concentrations in which the apprentice is placed.

Example – The apprentice successfully completes the CCL core required 2000 hours of OJL and 175 hours of related training. The apprentice, based on local need, is placed in two (2) areas of concentration: Building Construction and Deconstruction/Demolition. The apprentice must complete 1000 hours of OJL for each of the two (2) concentrations for a total of 2000 OJL, and 145 hours of related training.

The division of hours is as follows: two (2) concentrations require 1000 OJL hours each; three (3) concentrations require 667 OJL hours each; four (4) concentrations require 500 OJL hours each; five (5) concentrations require 400 OJL hours each; six (6) concentrations require 334 OJL hours each; seven (7) concentrations require 286 OJL hours each; and eight (8) concentrations areas require 250 OJL hours each.

The following schedule is an example of work experience and knowledge needed to become a skilled, safe and productive CCL journeyworker. Appendix A – Schedule of Work Experience is divided into two schedules: CCL Core Work Experience and CCL Area of Concentration Work Experience.

APPENDIX A – SCHEDULE OF WORK EXPERIENCE
CCL Core Work Experience Schedule Minimum 2000 Hours

Apprentices will gain a minimum of 2000 hours of experience in the core work skills to produce a strong foundation necessary to move forward within the Laborers' trade.

CORE WORK SKILLS	APPROXIMATE MINIMUM HOURS
Site preparation, layout, cleanup and security	400
Use and understand basic blueprint symbols and views	25
Recognize, secure and maintain job site safety	500
Identify and work safely around environmental hazards	25
Erect, dismantle, maintain and work from scaffold or lifts	100
Operate and maintain hand and power tools	300
Operate and maintain equipment as required by the job	125
Identify, estimate, move, supply, stock, and store materials	500
Use appropriate hand signals	25

APPENDIX A – SCHEDULE OF WORK EXPERIENCE
CCL Areas of Concentration Work Experience Schedule Minimum 2000 Hours

In addition to completion of the 2000 hours of OJL Core Work Experience an apprentice must complete a minimum of 2000 hours of OJL in one (1) or more of the following CCL areas of concentrations: Masonry, Deconstruction/Demolition, Building Construction, Heavy/Highway and Utility Construction, Pipeline, Tunneling, Environmental Remediation, and Landscaping.

Each area of concentration offers examples of work experience and knowledge needed to become a skilled, safe and productive CCL journeyworker. Apprentices will be placed in an area or areas of concentration depending upon industry need.

1. Building Construction 2000 hours

CCLs perform the following activities in association with the construction of buildings, and the maintenance of existing buildings such as industrial plants, schools, hotels, stores, high-rise structures, etc. Building construction may consist of, but not be limited to, the following activities:

1. Concrete placement - mixing, placement, vibration of concrete, build and place forms, remove and clean forms, cure concrete
2. Pipe laying and making of connections for any utility piping
3. Hoisting and rigging
4. Cutting and burning
5. Traffic control/flagging
6. Trenching and excavating
7. Grade setting/checking
8. Clearing, bucking and falling
9. Site preparation/cleanup and security (including installation and dismantling of all types of fencing.)
10. Layout and staking
11. Erect, dismantle and maintain scaffold
12. Identify, inspect, use and maintain all tools
    i. hand
    ii. electric
    iii. gas
    iv. pneumatic
    v. powder
13. Install erosion control systems
14. Forklift operation
15. Aerial lift operation

2. Heavy/Highway and Utility Construction 2000 hours

CCLs perform the following activities in association with the construction of infrastructure such as roads, railroads, bridges, locks, dams. (All types of) ~~and~~ utility installation, (including but not limited to: hydro, on and offshore wind turbine installation, solar farm construction, nuclear.) Heavy/Highway and Utility Construction may consist of, but not be limited to, the following activities:

1. Concrete placement - mixing, placement, vibration of concrete, build and place forms, remove and clean forms, cure concrete
2. Concrete cutting and coring
3. Pipe laying and making of connections for any utility piping
4. Hoisting and rigging
5. Traffic control/flagging
6. Trenching and excavating
7. Grade setting/checking
8. Layout and staking
9. Site preparation/clean up and security (including installation and dismantling of all types of fencing)
10. Drilling

11. Asphalt - raking, placement, compaction and preparation of the base
12. Build railroad beds and all related bridges and tunnels, and install tracks
13. Erect, dismantle and maintain scaffold
14. Identify, inspect, use and maintain all tools
    i. hand
    ii. electric
    iii. gas
    iv. pneumatic
    v. powder
15. Install erosion control systems
16. Forklift operation
17. Aerial lift operation
18. Site/roadside remediation

3. Masonry — 2000 hours

CCLs perform the following activities in association with masonry construction. Types of projects include, but are not limited to, new construction, renovation, and refractory work. Basic trade requirements include: estimation, preparation and delivery of all materials. Masonry may consist of, but not be limited to, the following activities:

1. Erect/dismantle and maintain scaffold
2. Estimate, stock and maintain supply areas
3. Identify, inspect, use and maintain tools
    i. hand
    ii. electric
    iii. gas
    iv. pneumatic
4. Forklift operation
5. Aerial lift operation
6. Mason tender/plaster tender
    i. Bracing walls
    ii. Mixing mortar or plaster including colored mortar or colored plaster
    iii. Estimating and stocking masonry units
    iv. Cutting masonry units
    v. Supply, stock and dispense mortar, plaster, block/brick, reinforcement and other materials
    vi. Plaster or grout pump operation/maintenance
    vii. Plaster or grout pump hose layout/cleaning
    viii. Fireproofing operations
    ix. Exterior insulation finish systems
    x. Interior plaster operations
7. Clean masonry walls

4. Demolition and Deconstruction — 2000 hours

CCLs perform the following activities in association with the demolition or deconstruction of buildings and other structures. Demolition/deconstruction may consist of, but not be limited to, the following activities:

1. Identify and work safely around environmental hazards
2. Erect/dismantle and maintain scaffold
3. Cutting and burning
4. Hoisting and rigging
5. Trenching and excavating
6. Aerial lift operation
7. Site preparation/cleanup and security (including installation and dismantling of all types of fencing)
8. Identify, inspect, use and maintain all tools
    i. hand
    ii. electric
    iii. gas
    iv. pneumatic
9. Fire watch
10. Concrete cutting and sawing
11. Demolition debris handling and management (recycling, reuse, disposal)

5. Pipeline — 2000 hours

CCLs perform the following activities in association with the construction and maintenance of gas, oil, and other material pipelines. Pipeline construction may consist of, but not be limited to, the following activities:

1. Hoisting and rigging
2. Trenching and excavating
3. Site preparation/cleanup and security (including installation and dismantling of all types of fencing)
4. Identify, inspect, use and maintain all tools specific to the concentration
    i. hand
    ii. electric
    iii. gas
    iv. pneumatic
5. Grade setting/checking
6. Layout and staking
7. Clearing and maintaining the right of way (ROW)
8. Pump water
9. Locate utilities
10. Build and dismantle fences
11. Load and unload pipe
12. Fill and place sandbags

13. Load, unload and place skids
14. Install erosion control systems
15. Pipe surface preparation/sand blasting
16. Apply pipe coating
17. Inspect pipe coating visually and with a holiday detector
18. Patch coating
19. Install pipe coating protection
20. Install corrosion protection
21. "Pig" the pipe
22. ROW remediation

6. Tunneling — 2000 hours

CCLs perform the following activities in association with all work underground or in compression chambers, including tending of the outer air lock. Tunnel construction may consist of, but not be limited to, the following activities:

1. Drilling
2. Identify, inspect, use and maintain all tools specific to the concentration
    i. hand
    ii. electric
    iii. gas
    iv. pneumatic
3. Hoisting and rigging
4. Concrete pump operation and maintenance
5. Install services (track laying, conveyors, vents, water, compressed air pipes etc.)
6. Install tunnel supports (steel ribs, mesh, rock bolts)
7. Shaft and tunnel grouting
8. Shotcrete/gunite application
9. Cutting and burning

7. Environmental Remediation — 2000 hours

CCLs perform the following activities in association with the remediation of areas, buildings and materials contaminated with chemical, biological, and physical hazards. Environmental remediation may consist of, but not be limited to, the following activities:

1. Asbestos abatement
2. Hazardous waste remediation
3. Lead abatement
4. Microbial remediation
5. Radiation protection/radioactive material handling
6. Water damage/fire restoration
7. Erect, dismantle and maintain scaffold
8. Identify, inspect, use and maintain all tools specific to this concentration

i. hand
ii. electric
iii. gas
iv. pneumatic

9. Aerial lift operation

8. Landscaping — 2000 hours

CCLs perform the following activities in association with landscape work in commercial applications. Landscaping may consist of, but not be limited to, the following activities:

1. Trim and prune hedges, trees and shrubs
2. Seed and sod lawns
3. Install irrigation systems
4. Install retaining walls
5. Install brick pavers for walks and patios
6. Apply fertilizers and pesticides – traditional use and alternative "green" applications
7. Plant and maintain flowers and ground covers
8. Install and maintain fences, planters and other landscaping features (playgrounds, gazebos, fountains)
9. Small engine maintenance/repair
10. Identify, inspect, use and maintain all tools specific to the concentration
    i. hand
    ii. electric
    iii. gas
    iv. pneumatic
11. Traffic control/flagging
12. Operate all landscape equipment related to the occupation

CORE SKILLS OJL	2000 Hours
CONCENRATION(s) OJL	2000 Hours
TOTAL CCL OJL	4000 Hours

Attachment 2-A
Related Instruction Outline
Construction Craft Laborer (CCL)
O*NET-SOC CODE: 47-2061.00 RAPIDS CODE: 0661R

The following schedule is an example of related instruction designed to complement the CCL OJL requirements. Appendix B – Schedule of Related Instruction is divided into two schedules: CCL Core and CCL Areas of Concentration.

APPENDIX B – SCHEDULE OF RELATED INSTRUCTION
Construction Craft Laborer Core
A minimum of 175 hours of related instruction is required to satisfy CCL Core.

Required Classroom Instruction for Core Skills	Recommended Class Hours
Common Four	40 hours (total)
Rough Terrain Forklift Rough Terrain Forklift training complies with OSHA 1926.602(c) requirements, teaches participants about the hazards involved with operating a forklift, and explains what they can do to prevent accidents and injuries when operating these forklifts.	16 hours
Walk behind saw Walk behind saw provides general training on blade types utilized, description of hazards associated with sawing/cutting concrete and control methods, proper Inspection techniques and operating procedures.	8 hours
Core Drill Concrete Coring/Drilling provides general training on drilling safety and PPE, standard procedures and precautions, and bit use and performance.	8 hours
Compaction Soil Compaction provides the participants with an understanding of the reasons for having a properly compacted base, what type of equipment to use for different soil types, why it is necessary to compact fill in lifts of a specific depth, and how to operate the different types of compaction machinery.	8 hours
Aerial Lift Aerial Lift training provides participants with a general understanding of the safe and efficient operation of "Power Operated Mobile Work Platforms." Participants learn to identify specific health and safety hazard associated with a variety of aerial work platform.	8 hours

Pneumatic Tool Operation — 8 hours

Pneumatic Tools Operation gives participants a general understanding of what air compressors are, how they work, and how to perform basic maintenance procedures. They will also learn to identify various pneumatic tools and understand what their purpose is, how to use them safely, and how to keep them working properly.

Craft Orientation — 8 hours

Craft Orientation training introduces participants to the construction industry in general and a career as a CCL in particular. Emphasis is placed on developing good work habits, being productive on the job, working under a collective bargaining agreement, being aware of growth areas in construction employment, and background information on the LIUNA and its related funds. Participants are also introduced to the history of the labor movement in general, and of LIUNA in particular. Emphasis is placed on the origin of the union and the challenges that have been faced and overcome from its beginning to the present.

First Aid/CPR — 8 hours

First Aid/CPR training is designed for participants to learn first aid skills for treating a variety of injuries, such as burns, wounds, head, neck and back injuries, and heat and cold emergencies. Participants also learn to manage sudden illnesses, strokes, seizures, animal and insect bites and poisoning. Adult CPR teaches participants how to perform CPR and care for breathing and cardiac emergencies in adults.

General Construction — 80 hours

General Construction training introduces participants to a wide variety of concepts, tools, and skills that are important to successfully begin a career as a CCL. Participants receive instruction on the work and the role of a CCL, commonly encountered safety issues, measurement in construction, basic construction math, safe hand and power tool operation, and identification and handling of materials frequently used in construction.

OSHA Construction Safety and Health — 11 hours

OSHA Construction Safety and Health training is designed to meet the requirements for OSHA's 10-hour training program. The program provides safety and health information as it relates to the many hazards found on construction projects and offers insight into ways to reduce them.

Scaffold User — 8 hours

Scaffold User training presents a variety of scaffold types, the hazards associated with each, and how to figure load capacities and their effect on scaffold performance.

Flagger — 4 hours

Flagger training provides information to participants about flagger safety procedures on highway work zone projects. Participants are provided with information to help them demonstrate proper procedures for stopping, slowing and releasing traffic. Topics include communication methods for two-person flagging operations, the correct positioning of flaggers in work zones, the proper high visibility clothing that must be worn by flaggers, and when specific hand-signaling devices should be used.

Attachment 2-A – SCHEDULE OF RELATED INSTRUCTION
Construction Craft Laborer Areas of Concentration
A minimum of 145 hours of Related Instruction is required to satisfy CCL Areas of Concentration.

NOTE: Each training course is considered Related Instruction for the courses indicated. Each can also be an elective for any other concentration.

Required Classroom Instruction for Areas of Concentration	Recommended Class Hours

Mason/Brick/Plaster Tending — 40 hours

Mason/Brick/Plaster Tending training provides instruction on the mason tender's duties, proper job task performance, and health and safety issues associated with mason tending. Participants use mathematical and scientific concepts to achieve an understanding of working with masonry units, mortars, plasters, and admixtures. In addition, the fundamentals of cutting and cleaning masonry and tending plasterers are covered.

Related Instruction for concentration(s): 3

Scaffold Builder — 40 hours

Scaffold Builder training addresses the needs of CCLs who are responsible for building scaffolding on the jobsite or are required to perform job tasks while using scaffolding. Designed to meet the training requirements of 29 CFR Part 1926.454, the comprehensive program includes frame, tube and coupler, systems, non-powered adjustable and powered mast-climbing scaffold with hands-on training for each.

Related Instruction for concentration(s): 1, 3, 4

Aerial Lift — 8 hours

Aerial Lift training provides participants with a general understanding of the safe and efficient operation of "Power Operated Mobile Work Platforms." Participants learn to identify specific health and safety hazards associated with a variety of aerial work platforms. Aerial Lift training also provides participants the opportunity to operate aerial lifts in a safe manner.

Related Instruction for concentration(s): 1, 2, 3, 4, 7

Hoisting and Rigging — 40 hours

Hoisting and Rigging training is designed to educate CCLs in the rules, processes, and procedures to safely rig, signal, and hoist loads on construction projects. The program incorporates federal regulatory requirements as well as equipment manufacturers' standards. Training provides participants the opportunity to practice rigging and signaling.

Related Instruction for concentration(s): 1, 2, 4, 5, 6

Demolition/Deconstruction — 40 hours

Demolition/Deconstruction training introduces participants to the similarities and differences of demolition and deconstruction work. Particular attention is paid to safety in all aspects of the work. Topics covered include planning projects, mechanical demolition equipment, material handling, site control, and special conditions that sometimes exist during this work.

Related Instruction for concentration(s): 4

Fire Watch — 4 hours

Fire Watch training teaches participants what a fire watch is, how it is conducted, and why it is important. Topics covered include classifications of fires, preventing fires, types of extinguishers, and extinguishing fires.

Related Instruction for concentration(s): 1, 4, 6

Cutting and Burning — 24 hours

Cutting and Burning training provides participants with an understanding of how to safely use heat to cut different types of metals using a variety of methods. Topics covered include the personal protective equipment (PPE) necessary for each process, the types and health effects of various fumes given off during the process, and how to protect the area from fire hazards. Participants will also be able to identify the components of the cutting systems and how to properly assemble and disassemble the systems. Systems taught include oxy-acetylene, oxy-gasoline, and plasma arc cutting.

Related Instruction for concentration(s): 1, 4, 6

Concrete — 40 hours

Concrete training provides the basic knowledge and skills CCLs need to work safely and productively in this potentially hazardous field. Safety issues associated with the mixing, forming, placement, and curing of concrete materials are covered, as well as the associated skills needed to complete these tasks. Ample time is given for hands-on practice for all skills.

Related Instruction for concentration(s): 1, 2

Pipe Laying — 40 hours

Pipe Laying training prepares CCLs to safely install pipe systems by introducing participants to the tools, equipment, and techniques typically used on a pipe laying job. Special attention is paid to proper work practices and protective measures used to install a variety of piping systems safely. Ductile iron, concrete, and high-density polyethylene piping are all covered.

Related Instruction for concentration(s): 1, 2

Line and Grade — 40 hours

Line and Grade training focuses on the skills, knowledge, and aptitude necessary to operate a variety of surveying instruments and record information for maintaining elevation and alignment control points on heavy and civil construction projects.

Related Instruction for concentration(s): 1, 2, 5

Asphalt — 40 hours

Asphalt training provides CCLs with the information they need to understand the safety precautions necessary when working with, raking and placing asphalt. In addition, participants practice the preparation of the surface, job preparation, and cleaning of the tools, and machinery. The patching of pot-holes and cracks is practiced along with proper raking techniques.

Related Instruction for concentration(s): 2

Traffic Control — 8 hours

Traffic Control training provides participants with an understanding of the types of traffic control devices and how they are used set-up and dismantled. Topics include the purpose of the Manual of Uniform Traffic Control Devices (MUTCD) and the methods to maintain pedestrian safety in traffic control zones.

Related Instruction for concentration(s): 2

Pipeline — 80 hours

Pipeline training instructs CCLs on the safe practices and procedures that need to be used on pipeline construction projects. All phases of pipeline construction are covered including the front-end work, pipe handling, pipe coating, and back-end work.

Related Instruction for concentration(s): 5

Shotcrete — 40 hours

Shotcrete training is designed to prepare participants to become certified Shotcrete Nozzlemen. Participants practice wet and dry mixing methods for below ground uses. Instruction also includes nozzle types and their maintenance and use. Hands-on opportunities to practice applying shotcrete are included.

Related Instruction for concentration(s): 6

Tunnel Worker — 80 hours

Tunnel Worker training prepares CCLs to work safely and productively on a tunnel job. Topics covered include tunnel safety, an overview of tunnel construction, the duties of a CCL tunnel worker, and compressed air systems.

Related Instruction for concentration(s): 6

Drilling — 16 hours

The Drilling Operations program includes an introduction to drilling operations, how drilling operations work (construction applications, quarry applications, hand signals, and drill strings), how to operate and maintain the drill, and hands-on practice of drilling operations.

Related Instruction for concentration(s): 2, 6

Asbestos Worker — 40 hours

Asbestos Abatement Worker training prepares CCLs to work safely and productively on asbestos abatement projects. The program is designed to meet or exceed Occupational Safety and Health Administration and Environmental Protection Agency (EPA) training requirements under 29 CFR Part 1926.1101 and 40 CFR Part 763 respectively.

Related Instruction for concentration(s): 7

Hazardous Waste Worker — 80 hours

Hazardous Waste Worker training prepares CCLs to work safely and productively on hazardous waste remediation projects. The program meets all Occupational Safety and Health Administration training requirements under 29 CFR Part 1910.120 – Hazardous Waste Operations and Emergency Response.

Related Instruction for concentration(s): 7

Microbial Remediation — 24 hours

Microbial Remediation training instructs CCLs on the health hazards, PPE requirements, and remediation processes and techniques associated with the removal of mold as well as other microbial contamination.

Related Instruction for concentration(s): 7

Lead Abatement Worker — 40 hours

Lead Abatement Worker training prepares CCLs to work safely and productively on lead abatement projects. The course meets all Occupational Safety and Health Administration and Environmental Protection Agency training requirements under 29 CFR Part 1926.62 and 40 CFR Part 745.225 respectively.

Related Instruction for concentration(s): 7

Landscaping — 40 hours

Landscaping training provides CCLs with the knowledge and skills they need to work as a landscaper with a concentration on using environmentally-friendly techniques whenever possible. Topics covered include the landscape laborer's duties; safety hazards of landscape work; safe use of pesticides, herbicides and fertilizers with an emphasis on using environmentally-friendly materials; controlling erosion on the jobsite; and planting and maintaining sod, grass, shrubs and trees.

Related Instruction for concentration(s): 8

Landscape Equipment Operation — 40 hours

Landscape Equipment Operation training teaches CCLs how to safely and productively operate a skid steer, a trencher, and a mini excavator. Topics include safety, operation and maintenance procedures, along with ample time devoted to hands-on practice with the equipment.

Related Instruction for concentration(s): 8

Brick Paver Installation — 40 hours

Brick Paver Installation training provides CCLs with the knowledge and skills they need to install walkways and patios with brick pavers. Topics covered include the hazards associated with installing brick pavers; laying out the work; estimating the amount of pavers required; preparing the base; cutting bricks accurately and to minimize waste; and installing pavers correctly. Ample time is devoted to hands-on practice with all the job tasks.

Related Instruction for concentration(s): 8

Retaining Wall Installation — 40 hours

Retaining Wall Installation training provides CCLs with the knowledge and skills they need to install retaining walls for landscape work. Topics covered include the hazards associated with installing a retaining wall; the different types of retaining wall materials; laying out the retaining wall; estimating the amount of materials required; preparing the base; tying the wall back to the bank; and correct installation techniques for retaining wall blocks and timbers.

Related Instruction for concentration(s): 8

Irrigation Installation — 40 hours

Irrigation Installation training provides CCLs with the knowledge and skills they need to install irrigation systems. Topics covered include an overview of irrigation systems, with a focus on identifying those that best conserve water; the hazards associated with installing irrigation systems; how irrigation systems are best laid out for maximum efficiency; and how to maintain irrigation systems once they are installed. Ample time is devoted to hands-on practice assembling and installing an irrigation system.

Related Instruction for concentration(s): 8

Elective Related Instruction	Recommended Class Hours

The following elective courses can be used by apprentices to achieve their required hours in Related Instruction, depending on the work in the geographic jurisdiction. Courses listed in a concentration other than the apprentice's chosen concentration also qualify as elective courses.

Aboveground Drilling — 32 hours

Aboveground Drilling training introduces CCLs to the unique working environment of aboveground drilling by providing instructor facilitated classroom instruction along with intensive, performance-based, hands-on training. The care and use of tools and equipment is presented, as well as drilling techniques. Basic information about rocks and their composition and characteristics are introduced, as drillers must know how geology affects the drilling process. The personal safety of CCLs working on a drilling site is reviewed in depth. Site safety, hazard communication, health hazards, personal protective equipment, and working around explosives are also covered.

Construction Math — 40 hours

Construction Math training introduces CCLs to the basic math skills needed to perform calculations related to distance, area, volume, angles, and weight and measurement on construction projects. Participants are provided instruction and an ample opportunity to measure objects, calculate and perform basic math functions including addition, subtraction, multiplication, and division of whole and fractional numbers, measure and estimate volumes, convert fractions to decimals, (and decimals to fractions). In addition participants learn practical applications of the Pythagorean Theorem, formulas for calculating perimeters, area, volume, and the use and function of square roots.

Disaster Site Worker — 16 hours

Disaster Site Worker training prepares CCLs to safely and effectively work on disaster sites. It provides participants with an understanding of the Incident Command System (ICS) and how it relates to safe and efficient job performance, addresses the characteristics and hazards of man-made and natural disasters, and affords opportunities to learn and demonstrate different disaster response related skills, including use of PPE.

Green Construction — 16 hours

Green Construction training provides CCLs with information about the major factors that affect a green construction project including conservation of natural resources; reduction of carbon emissions; water resource use and conservation; reduction of soil, water and air pollution; and indoor air quality. Participants learn how these emerging issues influence their work and the potential future impact of growth in renewable energy, sustainable buildings, and green construction.

Green Roofs — 24 hours

Green Roof training introduces participants to the various types of green roofs, the safety hazards associated with the installation of green roofs, and the practices and procedures used during installation of the roof.

Lead and Silica in Bridges — 16 hours

Lead and Silica in Bridges training is designed to provide instruction to CCLs on two (2) common hazards found on bridge (and other construction) projects: lead and silica exposure. Emphasis is placed on the health hazards, PPE, regulations, and hazard mitigation methods.

Lead Renovator — 16 hours

Lead Renovator training prepares participants to perform renovation work using lead safe work practices. It meets all EPA and OSHA training requirements under 40 CFR Part 745.225 and 29 CFR Part 1926.62. Lead Renovator training is mandatory for all workers conducting renovation activities where lead-based paint is present in target housing and child occupied facilities. Students participate in active learning through classroom exercises and hands-on training.

Material Hoist Attendant – "Bell Ringer" — 8 hours

Material Hoist Attendant training provides training on the roles and responsibilities of the material hoist attendant (bell ringer) and inspection, operation, and maintenance procedures for material hoists used on construction projects.

Metric Measurement in Construction — 8 hours

Metric Measurement in Construction training introduces experienced CCLs and new entrants to the metric system of measurements and application in the construction industry. Units of measure and conversions using practical applications are covered. Participants practice real-world measuring techniques in practical situations.

Nuclear Power Plant Worker — 32 hours

Nuclear Power Plant Worker training is designed for CCLs involved in maintenance and shutdown activities at nuclear power plants or whose job assignments involve unescorted entry into areas controlled for radiological purposes. This program is divided into nine topics, which focus on the theory, basic radiological fundamentals, and the terms CCLs must know to work safely around radiological hazards.

Permit Required Confined Space — 24 hours

Permit Required Confined Space training focuses on the identification of the different types of confined spaces as well as their associated hazards. Participants receive detailed instruction on rules, regulations, and procedures

to be followed when entering a confined space as well as methods to mitigate the associated hazards.

Radiation Remediation — 24 hours

Radiation Remediation training provides CCLs with the information they need to work safely in and around radiological contaminated sites. Hands-on training is conducted in a mock training area. Respiratory protection and protective clothing and why they are required are also covered in this training.

Respiratory Protection — 8 hours

Respiratory Protection training details the correct use of respirators when airborne hazardous substances are present. Topics include using exposure guides, respirator selection, proper use of respirators, and OSHA respiratory protection program requirements.

Restoration Technician — 8 hours

Restoration Technician training focuses on commercial clean-up activities associated with fire and/or flood damaged structures. The Restoration Technician course is designed for participants who have received previous training in hazardous waste remediation, asbestos, and lead abatement as this course centers on the theory, application, and practices associated with restoration projects.

Solar Panel Installation — 40 hours

Solar Panel Installation training teaches the proper system sizing, design~~,~~ and prep work (associated with the construction, assembly ~~and~~ installation and maintenance) of solar photovoltaic (PV) systems in industrial settings (solar fields) on roofs or other structures. (Class training) ~~of mounting brackets for photovoltaic (PV) systems, installation of mounting brackets and tubes for hot water systems and~~ involves actual hands-on work associated with roof top, side of building and ground mounted applications.

Related Instruction for Concentration(s): 2

Silica Awareness — 8 hours

Silica Awareness training provides information to CCLs regarding the hazards associated with work activities such as concrete sawing or stone cutting of materials, which contain silica.

Underground Storage Tank Removal — 24 hours

Underground Storage Tank Removal training provides CCLs with knowledge about the safe removal of underground storage tanks. Trench safety, hazardous waste contaminants, and personal protection are all covered in this class.

ATTACHMENT 3
AFFIRMATIVE ACTION PLAN

The Southern Nevada Laborers ~~J.A.T.C.~~ (Training Trust) (hereafter referred to as the Committee) pledges that the recruitment, selection, and training of apprentices and during their apprenticeship shall be without discrimination because of race, color, religion, national origin, sex,(including pregnancy and gender identity), sexual orientation, genetic information,(or because they are an individual with a disability or a person 40 years or older.) To accomplish the purpose of the Nevada State Plan on Equal Employment Opportunities in Apprenticeship, the Committee pledges to take affirmative action to encourage minorities and women to apply for the apprenticeship program ~~(~~; and will operate as required under Title 29 of the Code of Federal Regulations ~~(~~CFR~~)~~, part 30.~~)~~

The following activities shall constitute the affirmative action plan. The Committee will make a good faith documented effort to participate in these activities to accomplish the purpose and goals of the State Plan.

I. Announcement of apprenticeship opportunities shall be disseminated regularly but not less than semi-annually. Openings will be announced at least 30 days in advance of earliest date for applications. Applications shall accepted on a yearly basis.

Announcement shall be made to:

a. ~~OWINN~~ (Nevada State Apprenticeship Agency)
b. USDOL
c. Nevada Employment Services in each of their offices in the Committee's jurisdiction.
d. Representative groups identified with minority and/or women.
e. Such other appropriate groups as directed by ~~OWINN~~ (the Nevada State Apprenticeship Agency) i.e., newspaper, radio, etc.

II. Participation in workshops conducted by the Nevada State Apprenticeship Council, Bona fide organizations of Apprenticeship Coordinators for the purpose of furthering apprenticeship training opportunities available.

III. Cooperation with local school boards and vocational education systems to develop a familiarization with the needs of the industry and the qualifications required to apprentices.

IV. The Committee shall communicate this plan to its membership, signatory contractors and participating parties to promote understanding, acceptance and support amongst the parties.

V. Grant advance standing or credit on the basis of previously acquired experience, training, skills or aptitude for all applicants equally.

VI. Engage in such other activities that may further the entry of minorities and/or women into apprenticeship.

VII. The selection of apprentices shall be by means of a sudden procedure consistent with the provisions of the ~~OWINN~~ (Nevada State Apprenticeship Agency) Equal Opportunity in Apprenticeship State Plan.

ATTACHEMENT 4 – SELECTION PROCEDURE

In accordance with the Nevada State Plan equal Employment opportunities and the Code of Federal Regulations Title 29, Part 30, Equal Employment Opportunity in Apprenticeship and Training.

Applications will be available to be picked up at the training center, during normal business office hours. The completed applications will be accepted on a yearly basis.

The Committee will announce program openings at least 30 days in advance of the earliest date for applications in the newspaper, as well as notifying registration agencies; i.e. Employment services, outreach program offices, community minority organizations, organizations for women and other similar outlets in the area.

Direct referral shall be permitted for graduates of the Job Corps with prior approval from ~~OWINN~~ (Nevada State Apprenticeship Agency) and concurrence with the USDOL

Direct referral may be permitted for graduates of the Youth Build program with prior approval from ~~OWINN~~ (Nevada State Apprenticeship Agency) and concurrence with USDOL Office of Apprenticeship.

Direct placement shall be permitted to an employee of a nonsignatory employer not qualifying as a journeyworker, when the employer becomes signatory. The employee shall be evaluated by the JATC and indentured at the appropriate period of apprenticeship based on previous work experience and related training.

Direct placement shall be permitted to an individual not qualifying as a journeyworker who signs an authorization card during an organizing effort wherein fifty percent (50%) of the employees have signed, shall be evaluated by the JATC and indentured at the appropriate period of apprenticeship based on previous work experience and related training, whether or not the employer becomes signatory.

Military Veterans who completed military technical training school and/or participated in a registered apprenticeship program or related craft while in the military may be given direct referral into the apprenticeship program. The JATC may evaluate the military training received for granting appropriate credit on the term of apprenticeship and the appropriate wage rate.

Pre Apprentices enrolled in the Laborers Local 872 Pre-Apprenticeship program who have successfully completed training as a pre-apprentice in classroom training and OJT may be given direct referral into the apprenticeship program

Former inmates of a Department of Justice – NDOC who have successfully completed a specific NDOC apprenticeship readiness program, where the Apprenticeship Program Sponsor may give direct referral to such inmates into the apprenticeship program upon completion.

The Committee will establish a sub committee to:

1. Administer a New Entrant Test.

2. Administer ~~an~~ Personal Interview – The Committee will establish a sub committee to meet at least quarterly to review the applications and their scores integrating them into the established prior list.

Ranking Procedure

1. Evaluation of the NEW ENTRANT TEST will be: 25% of the total points with a maximum of 25 points awarded.

2. Work history in a trade related area must be within the last 6 years: 5 points for each year of experience in the trade related work, with a maximum of 20 points.

3. Work history in a non-related area must be within the last 6 years: 2 points for each year of experience in the non-related work area, with a maximum of 10 points.

4. Previous experience in related classroom instruction: 5 points for each year of related classroom instruction, with the possibility of 20 points (C or higher grade required).

5. Personal interview: 25% of total points with a maximum of 25 points awarded.

   A tabulated score of 70 points accumulated from the aforementioned is required to qualify for ranking in the eligibility list.

   Applicants may review the scores at the Training Center.

   The highest scores will be placed at the top of the list in descending order. When the need for more apprentices is evident by the Union's out or work list, the Apprenticeship and Training Committee may in its discretion open the program for indenturing new apprentices. Applicants will be called into the program and indentured from the top of the list.

   They shall attend 80-hours of safety training to help prepare them for the work in the construction field. These new apprentices will then be placed on the out of work list in the same order they were in while on the Applicant list and employed in the trade in a timely manner.

   Those not selected will be place(d) on the waiting list for future employment for a two-year period, being integrated with any new induction lists if a new list is established prior to the two year period.

The forgoing Apprenticeship Standards were adopted this 20th day of July, 2022

The Apprenticeship and Training Committee of Laborers International Union of North America Local #872

~~**4201 East Bonanza Road, Las Vegas, NV 89110**~~

1750 E. Sahara Ave. Las Vegas, Nevada 89104

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Co-Chairperson	**Co-Chairperson**
Tommy White	~~**Sean Stewart**~~ **(James Barker)**
Laborers Local 872	**AGC/NCA**

Approved and registered with the

OFFICE FOR WORKFORCE INNOVATION FOR THE NEW NEVADA

NEVADA STATE APPRENTICESHIP COUNCIL

this _____ day of _____, 2022

_____

Date of Original Registration May 19, 1995 **Program Number** NV001950001

OFFICIALLY ADOPTED