5200.1010 DEFINITIONS.

Subpart 1. **Scope.** For purposes of all wage rate determinations, the following definitions shall apply.

Subp. 1a. **Adjacent county.** "Adjacent county" means a county that shares a common border with another county.

Subp. 2. **Commercial construction.** "Commercial construction" means all building construction projects exclusive of residential construction.

Subp. 3. **Highway and heavy construction.** "Highway and heavy construction" means all construction projects which are similar in nature to those projects based upon bids as provided under Minnesota Statutes, section 161.32 for the construction or maintenance of highways or other public works and includes roads, highways, streets, airport runways, bridges, power plants, dams, and utilities.

Subp. 4. **Project.** As utilized in parts 5200.1000 to 5200.1120 the term "project" means the erection, construction, remodeling, or repairing of commercial, residential, or public buildings or any highway and heavy construction.

Subp. 5. **Residential construction or agricultural construction.** "Residential construction or agricultural construction" means all construction, remodeling, or repairing of single or two family homes and structures appurtenant thereto including agricultural or farming buildings appurtenant to private farm residences when utilized to carry on primary farming operations.

Subp. 6. **State project.** "State project" means those projects which are subject to the requirements of Minnesota Statutes, sections 177.41 to 177.44.

5200.1040 CLASSES OF LABOR.

Each class of labor shall be based upon the particular nature of the work performed with consideration given to those trades, occupations, skills, or work generally

considered within the construction industry as constituting distinct classes of labor. Wage determinations will be issued for those separate classes of labor which fall under the following general classes:

A. Laborers.

B. Power equipment operators.

C. Truck drivers.

D. Special equipment.

E. Special crafts. The following crafts shall constitute separate classes of labor: bricklayers, carpenters, cement masons, line persons, electricians, iron workers, painters, pipefitters, plumbers, plasterers, roofers, and sheet metal workers, and other labor or work which is customarily considered as an individual trade or craft based upon its character and skills required.

F. In determining particular classes of labor, the department shall consider parts 5200.1100 and 5200.1101, work classifications contained in collective bargaining agreements, apprenticeship agreements on file with the department, the United States Department of Labor "O*NET OnLine" Web site, and customs and usage applicable to the construction industry.

G. Primary responsibility for classifying individual workers shall be upon the contractor.

H. For wage survey purposes, where a worker performs work in more than one class of labor on a project, the worker shall be placed in the class in which the person worked the greatest number of hours.

I. For wage survey purposes, the contractor reporting shall have the responsibility to determine the class in which the worker has worked the greatest number of hours on each project reported.

J. Workers employed within a class of labor as apprentices, helpers, supervisors, or trainees will not be included or counted within the wage survey.

5200.1100 MASTER JOB CLASSIFICATIONS.

Subpart 1. **Requirement.**

A. For purposes of parts 5200.1000 to 5200.1120, contractors must use the following codes and classifications in documenting classes of labor.

B. Descriptions of the nature of work, typical duties, and typical tools used for each code and classification of labor in subparts 2 and 5 are described in parts 5200.1101 and 5200.1102, respectively. A worker classified by a code under subpart 2 or 5 must be classified by the code and classification that best matches the worker's nature of work, typical duties, and typical tools used.

Subp. 2. **Laborers.**

Code No.	Position Title
101	Laborer, common (general labor work)
102	Laborer, skilled (assisting skilled craft journeyman)
103	Laborer, Landscaping (gardener, sod layer and nursery operator)
104	Flag person
105	Watch person
106	Blaster
107	Pipelayer (water, sewer and gas)
108	Tunnel miner
109	Underground and open ditch laborer (eight feet below starting grade level)
110	Survey field technician
111	Traffic control person (temporary signage)
112	Quality control tester

Subp. 2a. **Special equipment.**

Code No.	Position Title
201	Articulated hauler
202	Boom truck
203	Landscaping equipment, includes hydro seeder or mulcher, sod roller, farm tractor with attachment specifically seeding sodding, or plant, and two-framed forklift (excluding front, posi-track, and skid steer loaders), no earthwork or grading for elevations
204	Off-road truck
205	Pavement marking or marking removal equipment (one or two person operators); self-propelled, truck or trailer mounted units. The nature of the work performed by the operator of this equipment is the application of and removal of pavement marking. Normally paint is applied, but tape is also used to mark these lines. The systems on this equipment include skip line controllers, paint and bead monitoring, air pressure regulators, paint agitators and heaters, marking tape, water jet cutting, line marking grinders, vacuum collection, footage counters, mounted video camera, and laser alignment guiding tools.

Subp. 3. **Power equipment operators - highway and heavy projects.** For purposes of parts 5200.1000 to 5200.1120, contractors must use codes and classifications in this subpart for paying and documenting equipment operators working on highway and heavy type construction projects.

Code No.	Position Title
Group 2	
302	Helicopter pilot
303	Concrete pump
304	All cranes with over 135-foot boom, excluding jib
305	Dragline, crawler, hydraulic backhoe (track or wheel mounted) and/or other similar equipment with shovel-type controls three cubic yards and over manufacturer's rated capacity including all attachments
306	Grader or motor patrol
307	Pile driving

308	Tugboat - 100 h.p. and over when license required
Group 3	
309	Asphalt bituminous stabilizer plant
310	Cableway
311	Concrete mixer, stationary plant
312	Derrick (guy or stiffleg) (power) (skids or stationary)
313	Dragline, crawler, hydraulic backhoe (track or wheel mounted) and/or similar equipment with shovel-type controls, up to three cubic yards manufacturer's rated capacity including all attachments
314	Dredge or engineers, dredge (power) and engineer
315	Front end loader, five cubic yards and over including attachments
316	Locomotive crane operator
317	Mixer (paving) concrete paving, road mole, including mucking operations, Conway or similar type
318	Mechanic - welder on power equipment
319	Tractor - boom type
320	Tandem scraper
321	Truck crane - crawler crane
322	Tugboat 100 h.p. and over
Group 4	
323	Air track rock drill
324	Automatic road machine (CMI or similar)
325	Backfiller operator
326	Concrete batch plant operator
327	Bituminous rollers, rubber tired or steel drummed (eight tons and over)
328	Bituminous spreader and finishing machines (power), including pavers, macro surfacing and micro surfacing, or similar types (operator and screed person)
329	Brokk or R.T.C. remote control or similar type with all attachments
330	Cat challenger tractors or similar types pulling rock wagons, bulldozers, and scrapers
331	Chip harvester and tree cutter

6.1 6.2	332	Concrete distributor and spreader finishing machine, longitudinal float, joint machine, and spray machine
6.3	333	Concrete mixer on jobsite
6.4	334	Concrete mobil
6.5 6.6	335	Crushing plant (gravel and stone) or gravel washing, crushing and screening plant
6.7	336	Curb machine
6.8	337	Directional boring machine
6.9	338	Dope machine (pipeline)
6.10	339	Drill rigs, heavy rotary or churn or cable drill
6.11	340	Dual tractor
6.12	341	Elevating grader
6.13	342	Fork lift or straddle carrier
6.14	343	Fork lift or lumber stacker
6.15 6.16	344	Front end, posi-track, or skid steer loaders, over one cubic yard up to five cubic yards with attachments
6.17	345	GPS remote operating of equipment
6.18	346	Hoist engineer (power)
6.19	347	Hydraulic tree planter
6.20	348	Launcher person (tanker person or pilot license)
6.21	349	Locomotive
6.22	350	Milling, grinding, planing, fine grade, or trimmer machine
6.23 6.24	351	Multiple machines, such as air compressors, welding machines, generators, pumps
6.25	352	Pavement breaker or tamping machine (power driven) might mite similar type
6.26	353	Pickup sweeper, one cubic yard and over hopper capacity
6.27	354	Pipeline wrapping, cleaning or bending machine
6.28	355	Power plant engineer, 100 KWH and over
6.29	356	Power actuated horizontal boring machine, over six inches
6.30	357	Pugmill
6.31	358	Pumpcrete

359	Rubber-tired farm tractor with backhoe including attachments
360	Scraper
361	Self-propelled soil stabilizer
362	Slip form (power driven) (paving)
363	Tie tamper and ballast machine
364	Tractor, bulldozer
365	Tractor, wheel type, over 50 h.p. with PTO unrelated to landscaping
366	Trenching machine (sewer, water, gas) excludes walk behind trencher
367	Tub grinder, morbark, or similar type
368	Well point dismantling or installation
Group 5	
369	Air compressor, 600 CFM or over
370	Bituminous roller (under eight tons)
371	Concrete saw (multiple blade) (power operated)
372	Form trench digger (power)
373	Front end, skid steer, or posi-track loaders, up to and including one cubic yard with attachments
374	Gunite gunall
375	Hydraulic log splitter
376	Loader (barber greene or similar type)
377	Post hole driving machine/post hole auger
378	Power actuated auger and boring machine
379	Power actuated jack
380	Pump
381	Self-propelled chip spreader (flaherty or similar)
382	Sheep foot compactor with blade - 200 h.p. and over
383	Shouldering machine (power) apsco or similar type including self-propelled sand and chip spreader
384	Stump chipper and tree chipper
385	Tree farmer (machine)

Group 6		
387	Cat, challenger, or similar type of tractors, when pulling disk or roller	
388	Conveyor	
389	Dredge deck hand	
390	Fire person or tank car heater	
391	Gravel screening plant (portable not crushing or washing)	
392	Greaser (tractor)	
393	Lever person	
394	Oiler (power shovel, crane, truck crane, dragline, crushers, and milling machines, or other similar heavy equipment)	
395	Power sweeper	
396	Sheep foot roller and rollers on gravel compaction, including vibrating rollers	
397	Tractor, wheel type, over 50 h.p., unrelated to landscaping	

Subp. 3a. **Power equipment operators commercial projects.** For purposes of parts 5200.1000 to 5200.1120, contractors must use codes and classifications in this subpart for paying and documenting power equipment operators working on commercial type projects.

Code No.	Position Title
Group 1	
501	Helicopter pilot
502	Tower crane 250 feet and over
503	Truck or crawler crane with 200 feet of boom and over, including jib
Group 2	
504	Concrete pump with 50 meters/164 feet of boom and over
505	Pile driving when three drums in use
506	Tower crane 200 feet and over
507	Truck or crawler crane with 150 feet of boom up to and not including 200 feet, including jib
Group 3	
508	All-terrain vehicle cranes
509	Concrete pump 32-49 meters/102-164 feet

	510	Derrick (guy & stiffleg)
	511	Stationary tower crane up to 200 feet
	512	Self-erecting tower crane 100 feet and over measured from boom foot pin
	513	Traveling tower crane
	514	Truck or crawler crane up to and not including 150 feet of boom, including jib
	Group 4	
	515	Crawler backhoe including attachments
	516	Fireperson, chief boiler license
	517	Hoist engineer (three drums or more)
	518	Locomotive
	519	Overhead crane (inside building perimeter)
	520	Tractor - boom type
	Group 5	
	521	Air compressor 450 CFM or over (two or more machines)
	522	Concrete mixer
	523	Concrete pump up to 31 meters/101 feet of boom
	524	Drill rigs, heavy rotary or churn or cable drill when used for caisson for elevator or building construction
	525	Forklift
	526	Front end, posi-track, and skid steer type loaders one cubic yard and over, including attachments
	527	Hoist engineer (one or two drums)
	528	Mechanic-welder (on power equipment)
	529	Power plant (100 KW and over or multiples equal to 100 KW and over)
	530	Pump operator and/or conveyor (two or more machines)
	531	Self-erecting tower crane under 100 feet measured from boom foot pin
	532	Straddle carrier
	533	Tractor over D2
	534	Well point pump
	Group 6	
	535	Concrete batch plant

536	Fireperson, first class boiler license
537	Front end, posi-track, and skid steer type loaders up to one cubic yard, including attachments
538	Gunite machine
539	Tractor operator D2 or similar size
540	Trenching machine (sewer, water, gas) excludes walk behind trencher
Group 7	
541	Air compressor 600 CFM or over
542	Brakeperson
543	Concrete pump/pumpcrete or complaco type
544	Fireperson, temporary heat second class boiler license
545	Oiler (power shovel, crane, truck crane, dragline, crushers and milling machines, or other similar power equipment)
546	Pick-up sweeper (one cubic yard hopper capacity)
547	Pump and/or conveyor
Group 8	
548	Elevator operator
549	Greaser
550	Mechanical space heater (temporary heat no boiler license required)

Subp. 4. **Truck drivers.**

Code No.	Position Title
Group 1	
601	Mechanic - welder (on vehicles in Code Nos. 602 through 616)
602	Tractor trailer driver
603	Truck driver (hauling machinery including operation of hand and power operated winches)
Group 2	
604	Four or more axle unit, straight body truck
Group 3	
605	Bituminous distributor driver

606	Bituminous distributor (one person operation)
607	Three axle units
Group 4	
608	Bituminous distributor spray operator (rear and oiler)
609	Dump person
610	Greaser
611	Pilot car driver
612	Rubber-tired, self-propelled packer, under eight tons
613	Two axle unit
614	Slurry operator
615	Tank truck helper (gas, oil, road oil, and water)
616	Tractor operator, under 50 h.p.

Subp. 4a. **Unit.** For the purposes of subpart 4, "unit" refers to all axles including the steering axle.

Subp. 5. **Special crafts.**

Code No.	Position Title
701	Heating and frost insulators
702	Boilermakers
703	Bricklayers
704	Carpenters
705	Carpet layers (linoleum)
706	Cement masons
707	Electricians
708	Elevator constructors
709	Glaziers
710	Lathers
711	Ground person
712	Ironworkers
713	Lineman

714	Millwright
715	Painters (including hand brushed, hand sprayed, and the hand taping of pavement markings)
716	Piledriver
717	Pipefitters - steamfitters
718	Plasterers
719	Plumbers
720	Roofer/waterproofer
721	Sheet metal workers
722	Sprinkler fitters
723	Terrazzo workers
724	Tile setters
725	Tile finishers
726	Drywall taper
727	Wiring system technician; technology circuits or systems technician
728	Wiring system installer; technology circuits or systems installer
729	Asbestos abatement worker or environmental remediation worker
730	Sign erector

Subp. 6. **Wage determinations.** Wage determinations shall be made for other classifications not listed if such other classifications are in general use in the area being surveyed.

5200.1101 JOB CLASSIFICATION DESCRIPTIONS; LABORERS.

Subpart 1. **Code No. 101, Laborer, common (general labor work).**

A. Nature of work: performing tasks involving physical labor at building, highway, and heavy construction projects, tunnel and shaft excavations, and demolition sites including the following tasks or other tasks not listed which are not considered skilled craft work.

B. Typical duties:

(1) Loading, unloading, stockpiling, and staging construction materials by hand or with hand-operated equipment such as a pallet jack, unless included in a skilled trade.

(2) Digging and filling holes and trenches and using post hole diggers.

(3) Removing excess dirt or grout away from an auger as the auger progresses.

(4) Cleaning and sweeping.

(5) Moving and hoisting forms to point of installation, cleaning forms, and stripping forms not intended for reuse.

(6) Demolition of highways, bridges, and buildings, to include operating remote control demolition equipment.

(7) Removing materials to be discarded.

(8) Clearing and grubbing with hand tools.

(9) Performing signaling and rigging for material placement, removal, and demobilization.

(10) Using hand tools driven by compressed air, gas, or electric power to perform such work as breaking old pavement, loosening or digging hard earth, trimming bottom and sides of trenches, breaking large rocks, chipping concrete, trimming or cutting stone, caulking steel plates, or compacting earthen backfill.

(11) Using paving breakers and chipping hammers to break up concrete to be repaired or replaced.

(12) Mopping, brushing, or spreading bituminous compounds over surfaces for protection; and spraying materials such as water, sand, or steam through a hose to clean, coat, or seal surfaces.

(13) Tending a stationary or portable liquid asphalt kettle, starting fires under the kettle, controlling the heat applied to the kettle by regulating dials or burners, maintaining desired temperature in asphalt, regulating valves for discharging asphalt from the kettle; cleaning and pouring asphalt joints in concrete paving with nozzle or can; and distributing asphalt road-building materials evenly over road surface by raking, shoveling, and brushing materials to correct thickness and to add or take away material to fill low spots or to reduce high spots.

(14) Operating a power driven chain saw to clear areas of timber by felling trees and sometimes cutting the fallen trees into short sections to facilitate their removal.

(15) Operating a device used to burn or melt holes through concrete (this device consists of a consumable aluminum magnesium rod inside a small iron pipe through which oxygen is forced under pressure, the end of the assembly is lighted, and the concrete is melted by the intense heat).

(16) Driving self-propelled buggy to transport concrete from mixer or source of supply to place of deposit, operating levers to dump load, and operating buggy by pushing or pulling by hand between mixer or other source to site of work.

(17) Covering, insulating, and uncovering concrete.

(18) Operating remote control vibrating compactor (such as a "whacker").

(19) Operating power-driven water cooled saws to cut concrete, including walk-along, hand-guided, or riding.

(20) Operating power-driven, walk-along, hand-guided tools for excavation, hauling, or grading.

(21) Operating control levers of a nonpowered infrared heater unit to regulate heat being applied to asphalt surface.

(22) Placing and operating ground thawing equipment.

(23) Tending heating devices.

(24) Cutting, scraping, and removing materials for demolition, including rigging and signaling, and using a cutting torch, plasma arc, and air arc for demolition work.

(25) Dismantling, moving, and cleaning forms after concrete hardens if the forms are not to be reused.

(26) Installing preformed wire baskets by tapping hooks along the edge of the baskets to keep them in place on highway projects.

(27) Running string line so an asphalt spreader operator can determine height and edge of asphalt surface.

(28) Setting string line for curb machines and placing concrete and moving and cleaning forms for curbs, sidewalks, and gutters.

(29) Installing, removing, altering, repairing, and erecting interlocking or modular block walls (nonmortar).

(30) Installing, removing, altering, and repairing paving stones of any materials set in sand cushion including, but not limited to, paving stones, natural stone, and synthetic materials when not set in mortar.

(31) Providing fire watch and hole watch.

(32) Cleaning, screening, and feeding sand to hopper or pot of sandblasting machine.

(33) Cleaning and preparing surfaces for the application of paint by sandblasting, water blasting, or using other equipment for purposes other than preparation.

(34) Installing, removing, altering, and repairing guardrails (other than guardrails on bridges), tension cable guardrails, guardrail posts, highway signs and sign structures, and median barriers.

(35) Installing, removing, altering, and repairing metal fencing used to define property boundaries, rights-of-way, medians, or driving lanes including barbed wire, chain link, temporary fencing, and woven wire, excluding decorative iron fencing, or providing safety for such areas.

(36) Cleaning and dressing the slopes of roadway cuts and embankments while suspended by ropes or cables, using hand tools as required.

(37) Operating hand-guided vibratory or impact compactor, and adjusting levers, throttles, and other devices necessary for operation.

(38) Removing, altering, and repairing post-tension and prestressed cables.

(39) Dewatering excavation and construction work sites, including the operation of water pumps.

(40) Performing pipe rehabilitation work, including cleaning, relining, cutting, and inspecting; and using all equipment used for pipe rehabilitation work, including closed-circuit TV trucks, pipe inspection cameras, cutters, bypass pumps, steam and water boilers, inversion units, jetters, vactors, and wet-out conveyors.

(41) Performing hazardous waste operations and working in and around hazardous waste, excluding asbestos abatement and lead and mold remediation.

(42) Below grade, installing soil venting systems.

(43) Installing, removing, altering, and repairing membrane materials used for landfills, holding ponds, contaminated soil, or other applications, including the welding and fusing of such materials.

(44) Performing caisson work.

C. Typical tools used: Air hammer, earth tamper, cement mixer, small mechanical hoist, surveying and measuring equipment, chain saw, cutoff saw, compaction equipment (hand-operated or remote control), concrete drill, concrete vibrator, jackhammer, paving breaker, air compressor, chipping tool, hammer, pliers, chisel, screwdriver, rigging equipment, cutter, shovel, rake, wheelbarrow, file, bar, sockets and wrench, level, scraper, grinder, core drill, rock drill, broom, torch, arc welder, ladder, knives, concrete slab saw, and concrete wall saw.

Subp. 2. **Code No. 102, Laborer, skilled (assisting special craft journeyman).**

A. Nature of work: performing skilled laborers' work and assisting special craft persons by performing the duties associated with the special crafts including duties typically considered those of a hod-carrier, mason tender, brick tender, drill runner tender, refractory worker, stone tender, shot-crete nozzle operator, track layer, concrete placement laborer, or top man.

B. Typical duties:

(1) Mixing cement used in the patching of concrete and performing other tasks as may be directed by cement mason.

(2) Mixing plaster, stucco, acrylic compounds, or similar materials for plasterers and delivering same to location where plasterer is working; constructing, erecting, and dismantling scaffolds for plastering regardless of scaffold height; and cleaning and caring for tools and equipment used in the preparation and application of plaster.

(3) Mixing fireproofing; constructing, erecting, and dismantling scaffolds for fireproofing regardless of scaffold height; and cleaning and caring for tools and equipment used in the preparation and application of fireproofing.

(4) Handling the equipment and directing the placing of concrete or mortar that is moved by pressure or pneumatic equipment, such as gunite or shot-crete; may fine-grade and place wire mesh at times; and may perform other related duties.

(5) Assisting brickmasons, stonemasons, and block masons by preparing mortar mix, either by hand or machine; delivering material to masons on scaffold; operating small material moving equipment such as power buggy, hoists, mortar mix pumps, and other similar equipment; constructing, erecting, and dismantling all mason scaffolds regardless of scaffold height; and erecting temporary enclosures for heat and shelter of mason scaffold.

(6) Mechanically mixing mortar ingredients to proper consistency and delivering to mason on scaffold or at site of work; keeping materials supplied to mason and assisting according to directions of mason.

(7) Installing, removing, altering, repairing, erecting, and patching precast products including, but not limited to, planks, walls, and panels.

(8) Cutting openings through concrete with core drill, concrete wall saws, and slab saws.

(9) Top man assisting pipelayer, including keeping stakes and string line set in place out in front of trenching machine so that machine will cut ditch in correct location, setting stakes so that pipelayers can fine-grade ditch and measure from the batter board down to correct depth of ditch, assembling valves and other parts to be lowered into the excavation, rigging of pipe sections to be lowered into the trench, maintaining the operation of water pumps and observing the excavation for warning signs of cave-ins, and cutting of pipe at the direction of the pipelayer.

(10) Placing concrete and lowering hose-like flexible shaft of vibrator into newly poured concrete; starting power unit and holding shaft, allowing hammerhead

on shaft to vibrate, thus consolidating the concrete (air, electric, or gasoline-operated vibrators are used).

(11) Performing work related to the construction, remodeling, or repairing of railroads and rail systems, including the grading and maintaining of rights-of-way, laying ties or other rail supporting materials, and laying rails.

(12) Setting stringline and forms for concrete curb, gutter, and sidewalk.

C. Typical tools used: air hammer, earth tamper, cement mixer, mortar mixer, small mechanical hoist, surveying and measuring equipment, chain saw, cutoff saw, compaction equipment (hand-operated or remote control), concrete drill, concrete vibrator, jackhammer, paving breaker, air compressor, chipping tool, hammer, pliers, chisel, screwdriver, rigging equipment, cutter, shovel, rake, wheelbarrow, file, bar, sockets and wrench, level, scraper, grinder, core drill, rock drill, broom, torch, arc welder, ladder, knives, concrete slab saw, and concrete wall saw.

Subp. 3. **Code No. 103, Laborer, landscaping (gardener, sod layer and nursery operator).**

A. Nature of work: performing landscaping including seeding, sodding, and planting of woody and herbaceous plant material, including native plant material such as grasses, shrubs, and trees; installing edging and ground cover, including mulches, decorative rock, and other materials associated with plantings; and installing erosion control measures limited to erosion blanket, silt fence, and bale checks and temporary erosion control measures.

B. Typical duties:

(1) Seeds, sods, and plants greenery to contract specifications by performing landscaping duties, including site development, soil preparation, fertilizing,

building garden accessories, and laying mulches and decorative rock around trees and buildings.

(2) Erecting silt fencing to contract specifications.

(3) The duties do not include electrical work, fencing (other than silt fencing), retaining walls, paving bricks, all concrete work, woodwork (such as park benches), or other work that is generally performed by a general laborer or skilled craft worker.

(4) Installing underground sprinkler systems for irrigation.

C. Typical tools used: shovel, rake, wheelbarrow, and seed and fertilizer broadcaster.

Subp. 4. **Code No. 104, Flag person.**

A. Nature of work: performing duties to regulate flow of traffic through a construction project by using handheld flags and signs. May keep in radio contact with others regulating traffic through the work zone.

B. Typical duties:

(1) Controlling movement of vehicular traffic through construction projects.

(2) Discussing traffic routing plans and type and location of control points with superior.

(3) Directing movement of traffic through site using sign, hand, and flag signals.

(4) Warning construction workers when approaching vehicle fails to heed signals to prevent accident and injury to workers.

(5) Informing drivers of detour routes through construction sites.

(6) Recording license plate number of traffic control violators for law enforcement.

(7) Giving hand marker to last driver in lineup of one-way traffic at opposite end of site, signaling clearance for reverse flow of traffic.

C. Typical tools used: signs, flags, radio, and personal protective equipment.

Subp. 5. **Code No. 105, Watch person.**

A. Nature of work: monitoring access to a construction project site.

B. Typical duties:

(1) Allowing entrance or exit of employees, truckers, and authorized visitors.

(2) Checking credentials or approved roster before admitting anyone.

(3) Issuing passes at own discretion or on instruction from superiors.

(4) Directing visitors and truckers to various parts of the construction project.

(5) Inspecting outgoing traffic to prevent unauthorized removal of company property or products.

(6) Recording information about trucks or other carriers entering and leaving.

(7) Checking permits from employees for tools or materials taken from premises.

C. Typical tools used: signs, flags, radio, and personal protective equipment.

Subp. 6. **Code No. 106, Blaster.**

A. Nature of work: assembling plants and detonating charges of industrial explosives to loosen earth, rock, and stumps, or to demolish structures to facilitate removal.

B. Typical duties:

(1) Supervising and assisting in locating, loading, and firing blast holes for breaking up hard materials; enlarging bottom of drilled holes by discharging small quantities of explosives; inserting detonator in charge of explosive, attaching fuse or electric wires, the stick and detonator forming a primer, the discharge of which effects the discharge of the remainder of the explosive; charging hole by placing explosive, including stick that contains detonator, in hole and tamping with a pole; depressing handle of blasting machine or lighting fuse to fire explosive; may use prima-cord or delay caps.

(2) Carrying powder or other explosive to blaster or powder person and assisting by placing prepared explosive in hole, connecting lead wire to blasting machine, and performing other duties as directed.

(3) Examining mass, composition, structure, and location of object to be blasted, estimating amount and determining kind of explosive to be used, and marking location of charge holes for drilling.

(4) Assembling primer (blasting cap and fuse or electric squib and booster charge) and placing primer with main charge in hole or near object to be blasted.

(5) Covering charge with mud, sand, clay, or other material and tamping firm to improve detonation and confine force of blast.

(6) Signaling to clear area of personnel and equipment.

(7) Lighting fuse or connecting wires from charge to battery or detonator to detonate charge.

(8) Operating jackhammer, hand drill, or electric drill to bore holes for charges.

(9) Climbing cliffs or banks to plant explosive charge, using ropes and safety harness.

(10) Setting and detonating explosive charges to improve flow of water into wells.

(11) Operating rock driller.

C. Typical tools used: jackhammer, drills, galvanator, dynamite punch, crimper, tampers, signal whistle, and rigging equipment.

Subp. 7. **Code No. 107, Pipelayer (water, sewer and gas).**

A. Nature of work: laying pipe, metal culvert and box culvert for water, sewer water, water main, waste sewage, storm water runoff, catch basins, manholes, and pedestrian access.

B. Typical duties:

(1) Installing, removing, altering, maintaining, and repairing underground pipes used to handle water, water main, waste sewage, storm water runoff, catch basins, and manholes outside the building regardless of material.

(2) On utility projects, laying pipe, receiving pipe lowered from top of trench, inserting spigot end of pipe into bell end of last laid pipe, adjusting pipe to line and grade, and sealing joints with cement or other sealing compound.

(3) On highway projects, receiving, laying, connecting (by means other than welding), and sealing joints of pipes.

(4) Setting the depth of the excavation for proper pipe grade.

(5) Guiding the equipment operator around existing utilities.

(6) Receiving the pipe sections into the excavation for placement.

(7) Responsible for the correct grade and alignment of the pipe.

(8) Fine-grading the ditch before pipe placement.

(9) Assembling large-diameter metal culverts by bolting together semicircular pieces of metal to form a complete circle, bolting each section of this circle to similar sections which are placed adjacently, and repeating these processes until the required length of culvert is formed.

(10) Installing, removing, altering, maintaining, and repairing metal culvert to direct surface water under roadways.

(11) Installing, removing, altering, maintaining, and repairing precast concrete box culverts.

(12) Installing, removing, altering, maintaining, repairing, and fusing HDP fusion pipe as it relates to sewer and water work.

(13) Installing, removing, altering, maintaining, and repairing manholes, catch basins, and hydrants.

C. Typical tools used: shovels, bars, lasers, targets, level, measuring and surveying equipment, stick rule, pipe fusion equipment, impact wrench, rigging equipment, small mechanical hoist, chain saw, cutoff saw, compaction equipment (hand-operated or remote control), paving breaker, air compressor, chipping hammer, hammers, pliers, chisel, screwdriver, wheelbarrow, scraper, grinder, torch, and ladder.

Subp. 8. **Code No. 108, Tunnel miner.**

A. Nature of work: drilling earth and rock excavations to construct underground shafts and tunnels for projects such as roads, railways, and waterways, and performing work within tunnels.

B. Typical duties:

(1) Performing tunnel and underground construction.

(2) Setting up and operating pneumatic drilling machinery and moving lever controlling drilling action to drill blast holes in tunnel heading according to spacing, angle, and depth of hole.

(3) Wedging, nailing, or bolting timber or steel retaining structures to prevent cave-ins.

(4) Working in caissons.

(5) Boring and welding pipe casings as related to tunnel work.

(6) Lancing surfaces by using sandblasting, water blasting, or other equipment.

C. Typical tools used: drills, saws, jack leg, hammers, tunnel boring machines, locomotives, mucking machines, conveyors, grout pumps, rigging equipment, and welding equipment.

Subp. 9. **Code No. 109, Underground and open ditch laborer (eight feet below starting grade level).**

A. Nature of work: assisting the pipelayer from within the excavation.

B. Typical duties:

(1) Assisting the pipelayer in aligning and assembling pipe products in ditches ("Bottom Man").

(2) Cleaning and lubricating pipe ends to guide pipe sections together.

(3) Backfilling and compacting along sides of pipe.

(4) Operating vibrating compactor (such as a "whacker") in trenches.

(5) Performing other general laborer duties that take place in trenches.

(6) Boring and welding pipe casings related to sewer and water work.

C. Typical tools used: shovels, bars, lasers, targets, level, measuring and surveying equipment, stick rule, pipe fusion equipment, impact wrench, rigging equipment, small mechanical hoist, chain saw, cutoff saw, compaction equipment (hand-operated or remote control), paving breaker, air compressor, chipping hammer, hammers, pliers, chisel, screwdriver, wheelbarrow, scraper, grinder, torch, ladder, and welding equipment.

Subp. 10. **Code No. 110, Survey field technician.**

A. Nature of work: operating total station, GPS receiver, level, rod or range poles, steel tape measurement; marking and driving stakes; hand or power digging for and identifying markers or monuments; performing and checking calculations; and reviewing and understanding construction plans and land survey materials. This classification does not apply to the work performed on a prevailing wage project by a land surveyor who is licensed pursuant to Minnesota Statutes, sections 326.02 to 326.15.

B. Typical duties:

(1) Driving grade stakes.

(2) Setting of grade stakes to proper height and set of "Blue Tops" for finish grading.

(3) Measuring.

(4) Reviewing and understanding construction plans and land survey materials.

(5) Digging for and identifying markers and monuments.

(6) Performing and checking calculations.

C. Typical tools used: total station, Global Positioning System (GPS) receiver, level, rod or range poles, steel tape for measurement, shovels, hammers, and other hand or small power digging equipment.

Subp. 11. **Code No. 111, Traffic control person (temporary signage).**

A. Nature of work: installation, movement, and removal of temporary traffic control systems such as cones, signage (electric or nonelectric), barriers, and flashing lights during highway and heavy and commercial construction projects.

B. Typical duties:

(1) Moving and setting electric or nonelectric traffic control devices.

(2) Places, positions, or replaces temporary signage (electric or nonelectric), cones, and flashing lights in a work zone.

(3) Repairs or replaces temporary signage (electric or nonelectric), cones, and flashing lights in a work zone.

(4) Cleans temporary signage (electric or nonelectric), cones, and flashing lights in a work zone.

(5) Removes temporary signage (electric or nonelectric), cones, and flashing lights in a work zone.

(6) Moving and setting jersey and other traffic control barriers.

C. Typical tools used: two-axle truck with or without swing arm for placing and removing signage, cones, barriers, and flashing lights, Global Positioning System (GPS) for accurate placement of signage, cones, barriers, and flashing lights, pressure washer to clean temporary signage (electric or nonelectric), cones, and flashing lights in a work zone.

Subp. 12. **Code No. 112, Quality control tester.**

A. Nature of work: field and covered off-site facilities; testing of aggregate, asphalt, and concrete materials; limited to Minnesota Department of Transportation highway and heavy construction projects where the Minnesota Department of

Transportation has retained quality assurance professionals to review and interpret the results of quality control testers' services provided by the contractor.

B. Typical duties:

(1) Testing aggregate for gradation and moisture content.

(2) Testing asphalt for gradation, oil content, fracturing, and density.

(3) Testing concrete materials' water/cement ratio, gradation, moisture, tensile strength, and density.

C. Typical tools used: screens, microwave, hot plate, burner plate, scales, compactor (Marshall or Gyratory), hydraulics to break concrete cylinders or bars for tensile strength, and various hand tools to obtain and finish samples.

5200.1102 JOB CLASSIFICATION DESCRIPTIONS; SPECIAL CRAFTS.

Subpart 1. **Code No. 701, Heating and frost insulators.**

A. Nature of work: applies to workers who apply insulation materials to mechanical systems to reduce loss or absorption of heat, prevent moisture condensation, deaden sound, and prevent vibration. The workers remove all insulation materials from mechanical systems unless the mechanical system is being scrapped.

B. Typical duties:

(1) Preparing and physically distributing on the job site cork, plastic, magnesia, or similar or substitute materials used as thermal insulation, to include building enclosures and hanging polyurethane. Manufacturing, fabricating, assembling, molding, handling, erecting, spraying, pouring, making, hanging, applying, adjusting, altering, repairing, dismantling, reconditioning, corrosion controlling, and testing of heat or frost insulation, such as cork, mineral wall, infusorial earth, mercerized silk, flax, fiber, fire felt, foam glass, Sytrofoam, polyurethane, polystyrene, metals, plastics, fibrous matter, roving, and resins.

(2) Covering or encapsulating of boilers, tanks, refrigeration units, evaporators, turbines, fittings, valves, ducts, flues, vats, equipment, hot and cold pipes, or any other hot or cold surfaces with the insulation materials listed in these typical duties, used for the purpose of thermal insulation, fire stoppage, fireproofing, radiator protection, sound deadening, and the lagging (covering) on piping.

(3) Removing all insulation materials from mechanical systems, unless the mechanical system is being scrapped (pipes, boilers, ducts, flues, and breechings). All clean up required in connection with this work, including the sealing, labeling, and dropping of scrap material into the appropriate containers.

(4) Measuring and cutting insulation for covering surfaces using tape measures, handsaws, knives, and scissors.

(5) Fitting insulation around obstructions and shaping insulating materials and protective coverings as required.

(6) Determining the amounts and types of insulation needed and methods of installation based on factors such as location, surface shape, and equipment use.

(7) Installing sheet metal around insulated pipes with screws in order to protect the insulation from weather conditions or physical damage.

(8) Applying, removing, and repairing insulation on industrial equipment, pipes, ductwork, or other mechanical systems such as heat exchangers, tanks, and vessels to help control noise and maintain temperatures.

(9) Selecting appropriate insulation such as fiberglass, Styrofoam, or cork based on the heat retaining or excluding characteristics of the material.

(10) Reading blueprints and specifications to determine job requirements.

(11) Covering, sealing, or finishing insulated surfaces or access holes with plastic covers, canvas strips, sealants, tape, cement, or asphalt mastic.

(12) Preparing surfaces for insulation application by brushing or spreading on adhesives, cement, or asphalt, or by attaching metal pins to surfaces.

C. Typical tools used: metal cutters, reciprocating saws, industrial sewing machines, shears, staple guns, and utility knives.

Subp. 2. **Code No. 702, Boilermakers.**

A. Nature of work: assembling, analyzing defects in, and repairing boilers, pressure vessels, tanks, and vats in fields following blueprints and using hand tools and portable power tools and equipment. Constructing, erecting, and assembling all boiler parts and work in connection with the boiler, including boiler fronts, heat units, water walls, tube supports, and casings. All connections between the boiler and stack (commonly known as breeching), built of sheet steel or iron, supports for same (which are not part of the building structure), uptakes, smoke boxes, air and water heaters, smoke consumers, and hot and cold air ducts (except when used for ventilation purposes). Pontoons, purifying boxes, gas generators, wash tanks and scrubbers, standpipes, brewery vats, exception glass enameled tanks, and water towers. All iron and steel pipeline, penstock, and flue work. Steam, air, gas, oil, and water, or other liquid tanks or containers requiring tight joints. Blast furnaces and rolling mills, hot stoves cupolas, dump cars, and all gasometers as well as frame work in connection with same. Iron and steel stacks in connection with power plants and rolling mills. Economizers, superheaters, attemperators, air heaters, casing, downcomers, sludge boxes, and sluice troughs. All demolition of boiler equipment, if replaced with the same or similar equipment or if the demolished parts are moved and rebuilt somewhere else. All handling, unloading, and working with boilermaker material.

B. Typical duties:

(1) Locating and marking reference points for columns or plates on foundation using master straightedge, squares, transit, and measuring tape and applying knowledge of geometry.

(2) Attaching rigging or signaling crane operator to lift parts to specified position.

(3) Aligning structures or plate sections to assemble boiler frame, tanks, or vats using plumb bobs, levels, wedges, dogs, or turnbuckles. Hammering, flame-cutting, filing, or grinding irregular edges of sections or structural parts to facilitate fitting edges together.

(4) Bolting or arc-welding structures and sections together. Positioning drums and headers into supports and bolting or welding supports to frame. Aligning water tubes and connecting and expanding ends to drums and headers, using tube expander.

(5) Belling, beading with power hammer, or welding tube ends to ensure leakproof joints. Bolting or welding casing sections, uptakes, stacks, baffles, and such fabricated parts as chutes, air heaters, fan stands, feeding tubes, catwalks, ladders, coal hoppers, and safety hatches to frame, using wrench. Installing manholes, handholes, valves, gauges, and feedwater connection in drums to complete assembly of water tube boilers. Assisting in testing assembled vessels by pumping water or gas under specified pressure into vessel and observing instruments for evidence of leakage.

(6) Repairing boilers or tanks in field by unbolting or flame cutting defective sections or tubes, straightening plates, using torch or jacks, installing new tubes, fitting and welding new sections, and replacing worn lugs on bolts. May rivet and caulk sections of vessels using pneumatic riveting and caulking hammers.

(7) Fabricating parts such as stacks, uptakes, and chutes to adapt boiler to premises in which it is installed.

C. Typical tools used: hammers, hoists, levels, punches, nail sets, drifts, and welding tools.

Subp. 3. **Code No. 703, Bricklayers.**

A. The term "bricklayer" includes the following and similar jobs: brick masonry, stonemasonry, artificial masonry, pointing-cleaning-caulking, and setting precast.

B. Nature of work:

(1) Brick masonry. Brick masonry includes the following work procedures and materials installation:

(a) Laying brick made from any material in, under, or upon any structure or form of work where bricks are used, whether in the ground, over its surface, or beneath water; in commercial and residential buildings, rolling mills, iron works, blast or smelter furnaces, or lime or brick kilns; in mines or fortifications, and in all underground work, such as sewers, telegraph, electric, and telephone conduits; and including the installation of substitutes for brick such as all carbon materials, Karbate, Impervite or mixtures, all acid resistant materials, and all terra cotta and porcelain materials, except where those materials are manufactured to substitute for tile.

(b) All cutting of joints, pointing, cleaning, and cutting of brick walls, fireproofing, block-arching, and terra cotta cutting and setting; laying and cutting all tile plaster, mineral-wool, cork blocks, and glass masonry, or any substitute for those materials; laying all pipe sewers or water mains and filling all joints on the same when such sewers or conduits are of any vitreous material, burnt clay, cement, or any substitute materials used for those purposes; cutting, rubbing, and grinding all kinds of brick and setting all cut stone trimmings on brick buildings; preparing and erecting plastic, castables, or any refractory materials; and installing hollow metal door frames in masonry applications where the door frames are cemented into the concrete block wall as the wall is built.

(c) Cleaning, grouting, pointing, and other work necessary to achieve and complete the work under the foregoing categories; all waterproofing and black mastic waterproofing, silicone, or substitutes sandwiched between masonry units in the interior of the wall.

(d) All terra cotta called unit tile in sizes over 6" x 12" regardless of method of installation; all quarry tile over 9" x 9" x 1/4" in size; split brick or quarry tile or similar material if bedded and jointed with one operation. The bedding, jointing, and pointing of those materials shall be the work of the craft installing the same.

(e) All burnt clay extruded cellular products regardless of trade name or method of installation when used as a veneer on structures; all clay products in sizes larger than 6" x 12" known as terra cotta tile, unit tile, ceramic veneer, machine-made terra cotta, and like materials, regardless of the method of installation. Where the preponderance of material to be installed is to be used in connection therewith, the bricklayers shall install all such materials. Brick paving is part of the bricklayer classification.

(2) Stonemasonry. Stonemasonry includes the following work procedures and materials installation:

(a) Laying all riprap, rubble work, with or without mortar, setting all cut stone, marble, slate, or stone work (meaning, as to stone, any work manufactured from such foreign or domestic products as are specified and used in the interior or on the exterior of buildings by architects and customarily called "stone" in the trade); cutting all shoddies, broken ashlar, or random ashlar that is roughly dressed upon the beds and joints, and range ashlar not over ten inches in height; dressing all jambs, corners, and ringstones that are roughly dressed upon the beds, joints, or reveals, and the cutting of a draft upon same for plumbing purposes only; and cleaning, cutting of joints, and pointing of stone work.

(b) Stonemasonry work applies to all work in buildings, sewers, bridges, railroads, breakwaters, jetties, playgrounds, parks, landscaping, and curbing or other public works, and to all kinds of stone, particularly to the product of the locality where the work is being done. Stonemasons shall have the right to use all tools which they consider necessary in performing their work.

(c) Cleaning, grouting, pointing, and other necessary work to achieve and complete the work described under this subitem.

(3) Artificial masonry. Artificial masonry includes the following work procedures and materials installation:

(a) Cutting, setting, and pointing of cement blocks and all artificial stone or marble, either interior or exterior, when set by the usual custom of the stonemason and marble setter. All cement that is used for backing up external walls, the building of party walls, columns, girders, beams, floors, stairs, arches, and all material substituted for clay or natural stone products.

(b) All artificial masonry and the cutting, setting, and pointing of all concrete prefabricated slabs, regardless of dimension size.

(4) Pointing-cleaning-caulking. Pointing-cleaning-caulking includes the following:

(a) The pointing-cleaning-caulking of all types of masonry, caulking of all window frames encased in masonry, brick, stone, or cement structures, including all grinding and cutting out on such work, and all sandblasting, steam cleaning, and gunite work.

(b) The pointing, cleaning, and weatherproofing of all buildings, grain elevators, and chimneys built of stone, brick, or concrete, including all grinding, cutting out, sand blasting, and gunite work on same.

The bricklayer uses building materials, such as brick, structural tile, concrete cinder, glass, gypsum, and terra cotta block to construct or repair walls, partitions, arches, sewers, and other structures.

(5) Setting precast sills and tilt-ups in mortar.

Subp. 4. **Code No. 704, Carpenters.**

A. Nature of work: Constructing, erecting, installing, and repairing structures, structural members, and fixtures made of wood, plywood, wallboard, and materials that take the place of wood, such as plastic, metals, composites, and fiberglass, using carpenter hand tools and power tools.

B. Typical duties:

(1) Conforming the layout of buildings or structures on the site of plot to local building codes, blueprints, sketches, or building plans.

(2) Selecting specified types of lumber or other materials. Preparing layout, using rule, framing square, and calipers. Mark cutting and assembling lines on materials, using pencil, chalk, and marking gauge. Shaping materials to prescribed measurements, using saws, chisels, and planes. Assembling, cutting, and shaping materials and fastening them together with nails, dowel pins, or glue. Erecting framework for structures and laying sub-flooring. Covering sub-floor with building paper to keep out moisture and laying hardwood, parquet, and wood-strip block floors by nailing floors to sub-floor, cementing them to mastic, or asphalt base. Verifying trueness of structure with plumb bob, electronic lasers, transit, total station, measuring devices, and carpenter's level. Applying decorative paneling to walls. Measuring boards, timbers, or plywood using square, measuring tape, and ruler; marking cutting lines on materials using pencil and scriber; and sawing boards and plywood panels to required sizes.

(3) Making and setting all concrete forms (except curb forms on highway and heavy construction), including establishment of building lines or flow lines (box culverts, bridges) including footing forms. Making all forms used in tilt-up construction. Laying out, installing, and constructing wall forms and footing forms, all block-outs, wood or steel, and laying out and installing all embedded items. Building rough wooden structures, such as concrete forms, scaffolds, wooden bridges, trestles, coffer dams, tunnel, and sewer support. Welding and burning. Constructing forms and chutes for pouring

concrete. Nailing cleats (braces) across boards to construct concrete-supporting forms. Cutting and assembling timbers to build trestles and cofferdams. Building falsework to temporarily strengthen, protect, or disguise buildings undergoing construction. Setting of precast bridge sections. Welding incidental to concrete form work.

(4) Building and handling scaffolds used by carpenters. All scaffolding, constructed or assembled, 14' 6" and higher for normal or specialty use (regardless of purpose) excluding scaffolding used to access only plaster and masonry work.

(5) Handling and installing ladders, handrails, walkways, platforms, and gangways made of wood as well as shoring and lagging. Building temporary shelters and offices, wood frames, light gauge metal buildings, and pole buildings.

(6) Handling and installing wood and metal studs and exterior panels. Laying out reference lines and points for use in computing location and position of metal framing and furring channels and marking position for erecting metalwork using chalk line. Measuring, marking, and cutting metal runners, studs, and furring channels to specified size using tape measure, straightedge, and hand and portable power-cutting tools and welding equipment. Securing metal framing to walls and furring channels to ceilings using hand and portable power tools.

(7) Handling and installing insulation, thermal, and other material (not sprayed urethane or polyurethane) in connection with carpentry work.

(8) Installing insulation such as bat, board, sating, insulated wall panels, thermal, Styrofoam, sound attenuation, and fiberglass when the installation of the insulation material is not applied as an integral part of the roofing system.

(9) Installing doors, wood windows, and bucks, including hardware (bucks are rough frames in which finished frames are inserted), in building framework and brace them with boards nailed to framework. Fitting and nailing sheathing on outer walls and roofs on buildings. Installing beams and trusses of wood laminate. Handling and applying

all exterior and interior siding of various composites, including wood, particle board, cement board, light gauge steel, vinyl, aluminum, and other materials.

(10) Handling, cutting, sawing, and fitting drywall products (sheetrock) and lead-lined drywall whether for walls, ceilings, floors, soffits, or any use, no matter how installed - nailed, screwed, glued, or otherwise (interior, exterior). Lead-lined drywall is used in x-rays to avoid radiation exposure. Installing (comer) corner guards and wooden and plastic column covers.

(11) Planning gypsum drywall installation, erecting metal framing and furring channels using various fasteners, clips, screws, and related welding techniques for fastening drywall, and installs drywall to cover walls, ceilings, soffits, shafts, and movable partitions in residential, commercial, and industrial buildings; reading blueprints and other specifications to determine method of installation, work procedures, and material, tool, and work aid requirements. Measuring and marking cutting lines on drywall using square, tape measure, and marking devices. Scribing cutting lines on drywall using straightedge and utility knife and breaks board along cut lines. Fitting and fastening board into specified position on wall using screws, hand or portable power tools, or adhesive. Cutting openings into board for electrical outlets, vents, or fixtures using keyhold saw or other cutting tools. Installing fire-rated wall systems.

(12) Installing plasterboard or other wallboard to ceiling and interior walls of building using hand tools and portable power tools; installing horizontal and vertical metal or wooden studs for attachment of wallboard on interior walls using hand tools. Cutting angle iron and channel iron to specified size using hacksaw, and suspending angle iron grid and channel iron from ceiling using wire. Scribing measurements on wallboard using straightedge and tape measure, and cutting wallboard to size using knife or saw. Cutting out openings for electrical and other outlets using knife or saw. Attaching wallboard to wall and ceiling supports using glue, nails, screws, hammer, or powered

screwdriver. Trimming rough edges from wallboard to maintain even joints using knife. Nailing prefabricated metal pieces around windows and doors and between dissimilar materials to protect drywall edges.

(13) Handling and installing door frames, wood and hollow metal doors, hollow metal door frames, rollup garage doors, overhead doors or Rolling fire doors, automatic doors, channel iron door bucks, glass sliding, and bi-fold doors.

(14) Handling, installing, and caulking cabinets, cabinetry, shelving, fixtures, and counter tops.

(15) Making, handling, and setting frames, sash, blinds, magnetic tile, chalk, bulletin boards, trim, and other fixtures (for example, cabinets, bookcases, and benches). Applying shock-absorbing, sound-deadening, and decorative paneling to ceilings and walls. Fitting and installing prefabricated window frames, doors, doorframes, weather stripping, interior and exterior trim, and finish hardware, such as locks, letter drops, and kick plates.

(16) Measuring, cutting, assembling, and installing metal framing and decorative trim for windows, doorways, and vents. Fitting, aligning, and hanging doors and installing hardware, such as locks and kick-plates.

(17) Handling and installing builders hardware, including door tracks of every description. Installing weather strips. Making, fitting, and hanging fly screens for doors, windows, and other openings.

(18) Handling and installing access flooring, computer floors, and raised or elevated floors. Installing modular headwall units and laboratory casework and fume hoods.

(19) Handling and installing wood flooring.

(20) Handling and installing modular or demountable furniture, such as office partitions, cubicles, and other modular office products.

(21) Handling and installing acoustical and egg crate ceiling systems in their entirety (hanger wire, grid, molding, and tile), whether vertically or horizontally installed.

(22) Handling and assembling chairs, seats, bleachers, benches, children's playground equipment, lockers (wood or composite), metal shelving, and other furniture in theaters, halls, schools, stadiums, and other places of assemblage on floors of any kind. Installing protection screens (chalkboards), toilet partitions (plastic laminate, solid plastic), and building stairs.

C. Typical tools used:

(1) Hammers, knives, power screwdrivers.

(2) Ladders – extension ladders, fold up ladders.

(3) Levels – calibrating electronic levels, spirit levels, visual beam laser levels.

(4) Power sanders – belt sanders, hand rotary tools, orbit sanders.

(5) Power saws – circular saws, compound miter saws, reciprocating saws, worm drive saws.

(6) Squares – combination squares, framing squares, layout bars.

(7) Welding equipment. Any specialty or necessary tools and equipment for assembly, fabrication, or installation of all products and applications related to this classification.

Subp. 5. **Code No. 705, Carpet layers (linoleum).**

A. Nature of work: applies to workers who measure, cut, sew, make-up and seam, tape, and fit. Laying, installing, sealing, and waxing materials to be cemented, tacked, or otherwise applied to its base and adhered to any surface. These materials may be used as shock-absorbing, sound absorbing, or decorative coverings. Except for terrazzo, magnesite, and latex built-up floors, the materials include oil, cloth, matting, linen, carpet, synthetic turf, linoleum, vinyl, plastic, rubber, cork, mastic, asphalt, mastipave, tile, wood tile, interlocking and magnetic tile, chalk and bulletin board, nonslip or abrasive materials, resilient, decorative seamless surface coatings, monolithic coverings (monolithic means all resilient seamless material such as epoxy, polyethylene, plastics, and their derivatives, components, and systems), and all other resilient coverings on floors, walls, counters, table tops, and ceilings.

B. Typical duties:

(1) Handling materials at the point of installation.

(2) Performing necessary preparation and finish work such as sweeping, scraping, sanding, or chipping dirt and irregularities from base surfaces; filling cracks with putty, plaster, or cement grout to form smooth, clean foundations; and drilling holes for sockets and pins.

(3) Installing underlayment; sanding and filling; fitting of metal edgings, metal comers, and caps; and fitting devices for attachment of these materials.

(4) Spreading adhesive cement over floor to cement foundation material to the floor.

(5) Laying covering on cement.

(6) Rolling finished floor to smooth it out and press cement into base and covering.

(7) Stripping, buffing, and waxing resilient floors.

(8) Joining edges of carpet and seam edges where necessary by sewing or by using tape with glue and heated carpet iron.

(9) Cutting and trimming carpet to fit along wall edges, openings, and projections; finishing edges with a wall trimmer.

(10) Inspecting the surface to be covered to determine its condition and correcting any imperfections that might show through the carpet or cause the carpet to wear unevenly.

(11) Rolling out, measuring, marking, and cutting carpet to size with a carpet knife following floor sketches and allowing extra carpet for final fitting.

(12) Planning layout of the carpet, allowing for expected traffic patterns, and placing seams for best appearance and longest wear.

(13) Stretching carpet to align with walls and ensuring a smooth surface, and pressing the carpet in place over tack strips or using staples, tape, tacks, or glue to hold the carpet in place.

(14) Taking measurements and studying floor sketches to calculate the area to be carpeted and the amount of material needed.

(15) Cutting carpet padding to size and installing padding following the prescribed method.

(16) Nailing tack strips around the area to be carpeted or using old strips to attach edges of new carpet.

C. Typical tools used:

(1) Glue guns – butane glue guns, cool tip glue guns, electric glue guns.

(2) Knife blades – floro scraper blades, hooked blades, tackless cutter blades, trimmer blades.

(3) Power saws – jamb saws, toe kick saws, undercut saws.

(4) Shears – carpet base cutters, carpet shears, stand up cutters, strip cutters.

(5) Staple guns – air underlayment staplers, edge binding staplers, hammer tackers, heavy duty electric staplers.

(6) Tensioners – carpet tucking tools, swivel lock stretchers.

(7) Utility knives – trimmers, tucking trimmers, wall trimmers.

Subp. 6. **Code No. 706, Cement masons.**

A. Nature of work: applies to workers who set up rodding and finish fresh concrete, perform work on existing concrete, or work with various cementatious products.

B. Typical duties:

(1) Setting and laying out forms and bulkheads when used as screeds. Rodding, shaping, smoothing, stamping, and finishing the surfaces of freshly poured concrete floors, walls, sidewalks, curbs, swimming pools, paving, and steps and finishing extruded barrier rails or any other concrete surface requiring finishing, using hand tools or power tools, including floats, trowels, screeds, and straightedge.

(2) Preparing surfaces using grinder or chisel and hammer, including electric or pneumatic. All processes of patching, rubbing, and sacking with fresh concrete, cementatious materials, or epoxy compound.

(3) Laying out and installing expansions, control joints, and edges.

(4) Installing complete process of specialty flooring such as concrete overlays, micro topping, staining, exposed aggregate, and stamped concrete.

(5) Applying penetrating sealers, primer protective coatings, and protective covers (blankets, poly, etc.) to concrete floors and steps when part of the finishing process.

(6) Installing seamless composition floors such as quartzite or dex-o-tex, and installing and finishing epoxy-based coatings or polyester-based linings to all surfaces when the coatings or linings are applied by spraying or troweling in conjunction with pouring of the floor.

(7) Complete concrete polishing grinding systems using hand tools or machines.

(8) Sandblasting or water blasting for architectural finish or patching preparation.

(9) Cutting joints with concrete saw for the control of cracks in buildings and sidewalks, driveways, curbs, and gutters contiguous to buildings.

C. Typical tools used: floats, trowels, rubber floats, rubbing stones, set-up tools, saws, laser levels, eye levels, total stations, tapes, laser screeds, power screeds, walking or riding troweling machines, concrete polishing machines, concrete floor saws, and power or pump sealer sprayers.

Subp 7. **Code No. 707, Electricians.**

A. Nature of work: applies to workers who are responsible for installation, assembly, construction, inspection, operation, and repair of all electrical work within the property lines of any given property (manufacturing plants, commercial buildings, schools, hospitals, power plants, parking lots), single-family housing, apartments, condominiums, townhomes, and residential buildings. This scope of work shall begin at the secondary side of the transformer when the transformer is furnished by the local utility and the service conductors are installed underground. When service conductors are installed overhead in open air from wooden poles, this scope of work shall start immediately after the first point of attachment to the buildings or structures.

B. Typical duties:

(1) Planning and laying out electrical systems that provide power and lighting in all structures. This includes cathodic protection systems utilized to protect structural steel in buildings and parking structures.

(2) Handling, moving, loading, and unloading of electrical materials, materials used in association with an electrical system, electrical equipment, and electrical apparatus on the job site, whether by hand or where power equipment and rigging are required.

(3) Welding, burning, brazing, bending, drilling, and shaping copper, silver, aluminum, angle iron, and brackets used in connection with the installation and erection of electrical wiring and equipment.

(4) Measuring, cutting, bending, threading, forming, assembling, and installing electrical raceways (conduit, wireways, cable trays) using tools such as hacksaw, pipe threader, power saw, and conduit bender.

(5) Installing wire in raceways (conduit, wireways, troughs, cable trays). This wire may be ahead of service, service conductors, feeder wiring, subfeeder wiring, branch circuit wiring control circuits, life safety circuits, temperature control circuits, scada systems, process control systems, and digital and analog control systems.

(6) Chasing and channeling necessary to complete any electrical work, including fabricating and installing duct banks and manholes incidental to electrical, electronic, data, fiber optic, and telecommunication installation; for example: cell tower wiring and apparatus.

(7) Splicing wires by stripping insulation from terminal leads with knife or pliers, twisting or soldering wires together, and applying tape or terminal caps.

(8) Installing and modifying lighting fixtures to include L.E.D., fiber optic, and similar fixtures and their supports.

(9) Installing and modifying electrical and fiber optic equipment (AD-DC motors, variable frequency drives, transformers, reactors, capacitors, motor generators, emergency generators, UPS equipment, data processing systems, and enunciator systems where sound is not a part thereof).

(10) Installing raceway systems utilizing conduit, conduit bodies, junction boxes, device boxes for switches, and receptacles. This may also include wiring systems utilizing other methods and materials approved by the National Electrical Code (MC cable, AC cable, BX or flexible metal tubing, or electrical nonmetallic tubing).

(11) Installing main service equipment, distribution panels, subpanels, branch circuit panels, motor starters, disconnect switches, and all other related items. This includes all temporary wiring and lighting systems.

(12) Installing and wiring instrumentation and control devices as they pertain to heating, ventilating, air condition (HVAC) temperature control and energy management systems, building automation systems, and electrically or fiber optically operated fire and smoke detection systems where other building functions or systems are controlled.

(13) Testing continuity of circuit to ensure electrical compatibility and safety of components. This includes installation, inspecting, and testing of all grounding systems including those systems designed for lightning protection; testing of low, medium, and high voltage cables, equipment, and apparatus. This includes electrical heat stress testing and associated wiring.

(14) Removing electrical systems, fixtures, conduit, wiring, equipment, equipment supports, or materials involved in the transmission and distribution of electricity within the parameters of the building property line if reuse of any of the existing electrical system is required. This may include the demolition, removal, and disposal of the electrical system.

(15) Installing, repairing, altering, and maintaining solar photovoltaic wiring, apparatus, and equipment.

(16) Installing, repairing, altering, and maintaining wind power generation wiring, apparatus, and equipment.

(17) Wiring overhead bridge cranes, hoists, and their related control systems.

(18) Constructing, altering, and repairing highway and street lighting, traffic signal systems, athletic field lighting systems, airport runway and taxi lighting systems, and their related control systems.

C. Typical tools used:

(1) Cable reels – single reel cable trailers, wheeled wire dispensers, wire dollies, wire hand caddies, wire pullers, tuggers, electrical and hydraulic conduit benders.

(2) Screwdrivers – insulated screwdrivers, Phillips head screwdrivers, round shank screwdrivers, square shank screwdrivers.

(3) Stripping tools – automatic insulation strippers, self-adjusting insulation strippers, universal stripping tools, wire strippers.

(4) Voltage and current meters – milliametters, test lamps, volt tick meters, voltmeters.

(5) Wire or cable cutters – cable cutters, high leverage cable cutters, insulated cable cutters, utility cutters, punches, crescent wrenches, tap wrenches, Allen wrenches, nut drivers, pliers (various).

Subp. 8. **Code No. 708, Elevator constructors.**

A. Nature of work: assembling and installing all commercial conveyances: electric, cable driven, hydraulic, rack and pinion, freight and passenger elevators, escalators, dumbwaiters, moving walks, ramps, and lifts.

B. Typical duties:

(1) Handling, unloading, and hoisting all equipment to be assembled or installed by workers performing work within this job classification.

(2) Assembling, installing, repairing, and maintaining elevators, escalators, moving sidewalks, and dumbwaiters using hand tools and power tools and testing devices such as test lamps, ammeters, and voltmeters.

(3) Laying out system components, frameworks, and foundations; installing counterbalance rails, motor pump, cylinder and plunger foundations, and elevator cars (which includes the platform, walls, and doors).

(4) Cutting prefabricated sections of framework, rails, and other elevator components to specified dimensions.

(5) Positioning electric motor and equipment on top of elevator shaft using hoists and cable slings or mounting elevator apparatus in machine room, overhead or below.

(6) Installing all wiring, conduit, and raceways.

(7) Connecting electrical wiring to control panels and electric motors.

(8) Adjusting safety controls, counterweights, door mechanisms, and components such as valves, ratchets, seals, and brake linings.

(9) Inspecting wiring connections, control panel hookups, door installations, and alignments and clearances of cars and hoistways to ensure that equipment will operate properly.

(10) Testing newly installed equipment to ensure that it meets specifications, such as stopping at floors for set amounts of time.

(11) Sinking, boring, drilling, or digging cylinder wells.

(12) Erecting and assembling theatre stage and curtain elevator equipment and guides or rigging.

(13) Locating malfunctions in brakes, motors, switches, and signal and control systems using test equipment.

(14) Disassembling defective units, and repairing or replacing parts such as locks, gears, cables, and electric wiring.

(15) Maintaining log books that detail all repairs and checks performed.

(16) All cleanup required in connection with the installation of elevators.

C. Typical tools used: event or graphic data recorders, hydraulic pressure gauges, amp meters, millivoltmeters, test lamps, voltmeters, saws, grinders, acetylene torch, drill.

Subp. 9. **Code No. 709, Glaziers.**

A. Nature of work: installing, setting, cutting, preparing, fabricating, distributing, handling, or removing the following: glass and glass substitutes used in place of glass, preglazed windows, retrofit window systems, mirrors, curtain wall systems, window wall systems, suspended glass systems, louvers, skylights, entrance ways including automatic doors, patio doors, store front, column covers, panels and panel systems, glass hand rails, decorative metals as part of the glazing system, and the sealing of all architectural metal and glass systems for weatherproofing and structural reasons.

B. Typical duties:

(1) Installing the materials described under item A in the course of building construction, repair, remodel, alteration, or retrofit.

(2) Installing and welding extruded rolled or fabricated materials including, but not limited to, all metals, plastics, and vinyls, or any materials that replace same, metal and vinyl tubes, mullions, metal facing materials, corrugated flat metals, aluminum panels, muntins, facia, trim moldings, porcelain panels, architectural porcelain, plastic panels, unitized panels, showcase doors, glass handrails and relative materials, including those in buildings related to storefront, door and window construction, and curtain wall systems.

(3) Installing and maintaining automatic door entrances, door and window frame assemblers such as patio sliding or fixed doors, vented or fixed windows, shower doors, bathtub enclosures, and storm sash where the glass becomes an integral part of the finished product.

(4) Transporting, handling, rigging, unloading, and loading of tools, equipment materials, and clean up.

(5) Setting art glass, prism glass, beveled glass, leaded glass, automotive glass, protection glass, plate glass, window glass, wire glass, ribbed glass, ground glass, colored glass, figured glass, vitrolite glass, carrara glass, all types of opaque glass, class chalk boards, structural glass, tempered and laminated glass, and all types of insulating glass units.

(6) Caulking glass to glass, glass to metals, metals to substrates and glass to substrates.

(7) Installing metal sill, head, and jamb flashing.

(8) All plastics or other similar materials when used in place of glass to be set or glazed in its final resting place with or without putty, vinyl, molding, rubber, lead, sealants (such as Thiokol), neoprene, silicone, and all types of mastics in wood,

iron, aluminum, sheet metal, or vinyl sash, doors, frames, stone wall cases, showcases, bookcases, sideboards, partitions, and fixtures.

C. Typical tools used: files, glass cutters, grinding or polishing machines, power saws, miter saws, all types of levels and laser levels, all types of squares, all types of power tools, all types of hand tools, suction cups, power suction cups, swing stages, platform lifts, scaffolding, safety equipment, welding equipment, step ladders, and extension ladders.

Subp. 10. **Code No. 710, Lathers.**

A. Nature of work: erecting (horizontal) metal framework to which wooden, metal, or rockboard lath is fastened.

B. Typical duties:

(1) Measuring and marking surfaces to lay out work using tape measures, straightedges, or squares and mark devices.

(2) Drilling holes in floor and ceiling and driving ends of wooden or metal studs into holes to provide anchor for furring or rockboard laths.

(3) Fitting and fastening wallboard or drywall into position on wood or metal frameworks using glue, nails, or screws.

(4) Hanging dry lines (stretched string) to wall moldings in order to guide positioning of main runners.

(5) Measuring and cutting openings in panels or tiles for electrical outlets, windows, vents, plumbing, and other fixtures using keyhole saws or other cutting tools.

(6) Hanging drywall panels on metal frameworks of walls and ceilings in offices, schools, and other large buildings using lifts or hoists to adjust panel heights when necessary.

(7) Assembling and installing metal framing and decorative trim for windows, doorways, and vents.

(8) Trimming rough edges from wallboard to maintain even joints using knives.

(9) Cutting and screwing together metal channels to make floor and ceiling frames according to plans for the location of rooms and hallways.

C. Typical tools used: lifts, putty knives, saws; drywall, hacksaw, keyhole, trowels, utility knives, claw hammers, and lathing hammers.

Subp. 11. **Code No. 711, Ground person.**

A. Nature of work: performing ground work to assist the journeyman lineman on work that is not energized.

B. Typical duties:

(1) Manually digging and backfilling pole holes, anchor holes, and trenches.

(2) Loading, unloading, and moving materials and equipment used for the construction of power lines.

(3) Assisting in assembling conduit systems, boxes, signals, and bases on the ground. May frame and erect poles.

(4) Pulling nonenergized guy wires.

(5) Excavating dirt or rock on the outside line portion of a project.

(6) Tamping or compacting dirt following excavation work.

C. Typical tools used: jackhammers, air drills, shovels, picks, tamps, trenching equipment, and other tools used in excavating or compacting dirt or rock.

Subp. 12. **Code No. 712, Ironworkers.**

A. Nature of work: performing field storage and yarding, (on-site storage area or railhead) laying out, fabricating, modifying, erecting, installing, removing, repairing, renovating, retrofitting, demolishing, or dismantling of structural, architectural, ornamental, miscellaneous, and reinforcing members and related components or fixtures made of iron, steel, other ferrous and nonferrous metals and alloys, acrylic, ceramics, fiberglass, fiber-reinforced plastics or composites (FRP products), glass architectural or structural, precast, and prestressed concrete or stone, and materials that take their place, in buildings, bridges of all types, structures, civil work of all kinds, facilities, plants, and machinery, equipment, and appurtenances related thereto.

B. Typical duties:

(1) Erecting structural steel and installing architectural, ornamental, and miscellaneous metals: the unloading, sorting, yarding, erection, installation, assembly, and final alignment of the main structural steel of precast concrete framework and ancillary structural supports related thereto, including any field fabrication or modification of buildings and bridges of all types, including, but not limited to, highway, light rail transit and related systems, railroad, pedestrian, and bridges over all waters, structures, civil works of all kinds, plants, or facilities and the structural framing and supports for machinery and plant and facility equipment.

(2) Performing any combination of duties to hoist and install all structural components, including, but not limited to, columns, girders, beams, diaphragms, and all other bracing, joists, purlins, girts, wall restraint angles, plates, all metal floor and roof deck, channels, angles, or other structural shapes.

(3) Verifying elevations and vertical and horizontal alignment of structural and ancillary members by means of levels, plumb bobs, and optical instruments such as transits, eye level, lasers, Total Station, or Pacific Laser Systems.

(4) After assembly and final alignment, structural members are permanently bolted, welded, riveted, pinned, screwed, or otherwise secured into place. Setting up hoisting equipment to raise and place structural and ancillary members and components; fastening or securing members to cable of crane or other hoisting equipment by means of cable, chain, or rope; doing all signaling (via hand, telephone, or radio) to worker operating hoisting equipment during erection or installation; guiding members into place using tag lines, comealongs, portable hydraulic jacks, pry bars, wedges, and aligning pins.

(5) Laying out, drilling, and epoxying, grouting, or fastening anchor bolts or other anchoring devices described in this classification, excluding embedded items.

(6) Erecting, installing, aligning, and securing (by means of bolts, brackets, clips, epoxy core drilling and grouting or welding) architectural, ornamental, and miscellaneous metals (including iron, steel, aluminum, brass, or any other type of metal, glass, acrylic, or plastic) and related structural supports, including, but not limited to, stairways, stair treads, newel posts, balusters, gates, and handrails; ladders, catwalks and platforms; grating, floor plates, checker plates, and toe or kick plates; multiple function support components; relieving angles and lintels which are bolted or welded into place; and revolving doors and window grills.

(7) Modifying or altering main structural and ancillary members and components using oxyacetylene torch, plasma arc cutter, hand and power saws, drills, grinders, and welders.

(8) Performing demolition or dismantling of all materials described in this classification if materials, members, or components are to be reused or re-erected.

(9) Bridges: performing field unloading, sorting, and yarding, laying out, erecting, aligning, repairing, and renovating structural steel girders, beams, and metal components, such as ornamental railings, handrails, crash and guardrails, and safety fencing relating to pedestrians; precast or prestressed girders, beams, segments, members,

and related components such as architectural precast concrete facades for all types of bridges, including the installation of all steel tendons, bar tendons, and DWYI-DAG bars, strands, and the entire pre- or post-tensioning process including the calibrating and use of hydraulic jacks or other equipment and the grouting of prestress (bonded) cables when installed on the job site.

(10) Installing bridge seat assemblies, including bearing or shoe plates, rocker arms, and pins; trusses; diaphragm and other bracing; floor beams, bridge flooring, and ballast plates; expansion control assemblies and joints including slide assemblies; and the erection of structural steel framework supporting machinery and mechanical devices for lift, swing, or bascule bridges and the unloading, erection, cabling, and placing of all such machinery and devices to approximate position on anchor bolts.

(11) Installing structural cabling including spinning and cable stays; installing and erecting cableways and travelers if required for erection of bridge. Placing all reinforcing steel for cast-in-place concrete on all bridges, including, but not limited to, substructures such as caissons, footings, pier stem and caps, abutments, approach panels, sloped paving, bridge decks, J-barrier and crash rails, retaining walls, and wing walls. Erecting and dismantling related steel falsework and temporary bridges.

(12) Concrete reinforcing: the unloading, carrying, placing, and typing of all concrete reinforcing such as rebar, wire mesh, expanded metal, post-tensioning cables (including the calibrating and use of hydraulic jacks during the entire tensioning process) or prestress bonded cables including the grouting of all bonded cables and tendons when installed on the job site, and the layout and surface preparation (cleaning or grinding, placement, and welding) of shear connectors (such as Nelson studs).

(13) Positioning and securing steel bars in concrete forms and other required locations to reinforce concrete. Determining numbers, sizes, shapes, and location of reinforcing rods from blueprints, sketches, or oral instructions. Selecting and placing

rods in forms or at required locations; spacing and fastening them together, using wire and pliers or mechanical splices, and installing all associated chairs, bolster bars, or cement bricks for correct spacing. Cutting bars to required lengths using hacksaw, bar cutters, or oxyacetylene torch. Bending steel rods with hand tools or rod bending machine. Reinforcing concrete with wire mesh or rebar for slabs-on-grade, floor systems, fireproofing of structural steel members (including clips, bolts, or steel studs), and simulated rock formations. Welding reinforcing bars together, using standard arc welding or specialty welding processes. Welding deck pans on a bridge and reinforcing supports for the concrete structure: lays out and drills holes for dowel placement and secures dowels by means of epoxy adhesive, grout, or other mechanical means.

(14) Rigging and erecting machinery and equipment: the unloading, moving, erection, and setting of machinery and equipment (except the setting of electric motors) when rigging or power equipment, or both, is used, which includes hydraulic or electric jack stands or cable lift systems.

(15) Unloading, handling, moving, and placing machinery and related steel framing, to be assembled, dismantled, erected, or installed to its approximate position (over the anchor bolts).

(16) Offloading, staging, rigging, erecting, and dismantling (for maintenance or repair) wind turbine sections, blades, hubs, and nacelles and the torqueing of erection bolts.

(17) Unloading, assembling, erecting, plumbing, leveling, rigging, jumping, signaling to hoisting equipment operator, maintaining, and disassembling lattice boom cranes, tower cranes, buck hoists, Chicago booms, gin poles, guy and stiff leg derricks, manlifts, material hoists and towers, overhead travelers and traveling sheaves, and securing of same to buildings and structures where required.

(18) Installing monorails, bridge cranes, and underslung bridge cranes, including crane rails. Loading, unloading, moving, placing, and final setting of electrical transformers.

(19) Curtain wall, window wall, and windows: erecting and installing metal punched windows and enclosures, preglazed window units, strip windows (excluding storefront display windows), curtain-wall and window-wall systems and associated structural framing, panels and brackets related thereto, and installation of related cover plates, sills, stools molding, and trim work. Caulking, sealing, and weather stripping joints that abut those materials. Installing window washing systems including related guides, tracks, hooks, tiebacks, davits, and safety equipment.

(20) Doors: installing or erecting curtain type doors (overhead rolling-type doors), heavy industrial doors when made of metal, fire doors, and exterior metal hinged doors that carry a fire underwriters label, rolling grills and shutters (horizontal-sliding or vertical-drop), hangar doors, and related framing and installation of tracks, guides, sills, and thresholds.

(21) Sheeting and decking: installing structural metal sheeting (exterior or interior, corrugated or flat, insulated or noninsulated), structural metal floor decking and structural metal roof decking (including standing seam), structural metal ceiling and wall panel systems, insulated metal wall panel systems (so-called sandwich panels), and smoke curtains which are attached to a steel frame or to the metal, masonry, or concrete framework of a building or structure. Installs related purlins, girts, clips, brackets, fascia, soffits, and trim work.

(22) Pre-engineered metal buildings: erecting, installing, and retrofitting of the structural steel for pre-engineered buildings when they come in packaged units, such as Butler, Delta, Varco Pruden, or other name brand packaged buildings. Installing balconies, mezzanines, stairs and nonwood handrails, doors, windows (including Vista

Wall and related systems), skylights, and insulation (when installed in conjunction with sheeting) in the packaged buildings.

(23) Structural and architectural precast or prestressed concrete and stone: unloading, installing, and erecting precast concrete columns, beams, single Ts, double Ts raker beams, spandrel beams, top panels, tilt-up slabs, and wall panels and the erection and welding of corbels, haunches, and other related components supporting gravity loads. Erecting precast and prestressed wall and roof panels and architectural stone (granite, limestone, marble, or composite materials) by bolting, clamping, or welding at the bottom to footing and at the top to steel joints as needed. Erecting buildings utilizing lift-slab or jack-slab constructions.

(24) Other: installing detention security equipment and materials, including the erection of prefabricated or modular steel or precast concrete cells, associated with guardhouses, jail cells, police station holding cells, prison cells, and detention facilities utilizing central locking systems. Installing furniture and fixtures, including, but not limited to, beds and bunks, benches, chairs, food hatch doors, pass-throughs, food tray shelves, grills, mirrors, and tables (excluding sanitary facilities such as sinks and toilets); detention security doors, frames, and hinges including sliding doors and related guides, hardware, devices, and grouting of door frames); detention security hardware and locks; detention security gates, ceilings, and hatchway doors; detention security windows of glass, acrylic, and similar materials; detention security partitions (including woven wire partitions) and detention security caulking; and secure rooms, security and storerooms, and cages related to security doors and door frames.

(25) Installing theater equipment such as drapery and fire curtains and related tracks and guides, backdrop and scenery equipment, back stage lifts, counter weight systems and stage rigging (cabling and reaving-up included), and structural

framing, grids, and related catwalks that support any state and theater equipment-related components such as stage lighting and sound systems.

(26) Installing and erecting ornamental, cast iron, wrought iron, chain, and cable link fences, security fences, gates (excluding site clearing, boring of holes and placing of concrete) and blast deflector fences, including layout and erection of related structural framework, baffles, and sheeting.

(27) Installing dry storage bins, hoppers, silos, chutes, and conveyors where ash, coal, lime, ore, sand, or any dry component is stored or transferred.

(28) Erecting, altering, retrofitting, and repairing bridges, viaducts, cableways, tramways, and monorail transportation systems and the dismantling of same if for reuse or re-erection.

(29) Erecting geodesic and other domes supported by structural steel or air or cable supported and related fabric installation.

(30) Erecting, installing, repairing, removing, and dismantling locks, gates, sluice gates and bulkheads, weirs and weir plates, lift-station buildings, metal forms and railing (including pipe) on waterways, locks, dams, and flood control projects.

(31) Erecting pump station buildings on pipelines (excluding mechanical, piping, or electrical work). Erecting or installing frames in support of boilers, if part of the building structure.

(32) Assembling and erecting communication towers, (TV, radar, satellite, and microwave); installing related antennas and wave guide and other types of structural steel towers such as self-supporting towers, guyed towers, or monopoles (excluding electrical power transmission towers).

(33) Unloading and setting modular or prefabricated buildings, excluding mechanical, piping, or electrical work.

(34) Installing metal guardrails with metal posts and erecting highway informational signs.

(35) Erecting, trimming, and fitting together by means of bolts and clamps, iron grills, grating, and special stairways.

(36) Erecting ornamental enclosures and other ironwork not included in structural ironwork;

(37) Erecting safes and vaults (assembled and unassembled), vault doors, plates, and trim.

(38) Fastening ironwork to walls of buildings by means of bolts, brackets, or anchors.

(39) Installing pallet racks, speed racks, and associated shelving. Installing fall protection systems and related safety equipment for use by ironworkers.

C. Typical tools used: spud wrenches, sleaver bars, hammers, alignment pins, wedges, hydraulic jacks, rams, pliers, wire reels, tape measures, thickness gauges, various clamps, optical instruments such as Total Station and Pacific Laser System, transits, plumb bob, gas saws, drills, hammer drills, porta-bank, torsion control gun, welders (gas and electric), grinders, screw guns, tugger, chain fall, come-along, porta-power, roust-a-bout, genie lifts, J.L.G., scissors lift, sawzall, impact wrenches, torque wrenches, air compressors, stressing rams and equipment, jacking systems, power lifts, metal shears, torching equipment (acetylene, plasma, propane, and oxygen), cable cutters, automatic rebar typing machine, various types of rope, nylon slings, wire rope chokers, and shackles.

Subp. 13. **Code No. 713, Lineman.**

A. Nature of work: erecting, maintaining, and repairing transmission poles (wood, metal, or other), fabricated metal transmission towers, outdoor substations,

switch racks or similar electrical structures, electric cables, and related equipment for high-voltage transmission and distribution power lines.

B. Typical duties:

(1) Adhering to safety practices and procedures, such as checking equipment regularly and erecting barriers around work areas.

(2) Opening switches or attaching grounding devices in order to remove electrical hazards from disturbed or fallen lines or to facilitate repairs.

(3) Climbing poles or using truck-mounted buckets to access equipment.

(4) Placing insulating or fireproofing materials over conductors and joints.

(5) Installing, maintaining, and repairing electrical distribution and transmission systems, including conduits, cables, wires, and related equipment such as transformers, circuit breakers, and switches.

(6) Identifying defective sectionalizing devices, circuit breakers, fuses, voltage regulators, transformers, switches, relays, or wiring using wiring diagrams and electrical-testing instruments.

(7) Driving vehicles equipped with tools and materials to job sites.

(8) Coordinating work assignment preparation and completion with other workers.

(9) Inspecting and testing power lines and auxiliary equipment to locate and identify problems using reading and testing instruments.

(10) Stringing wire conductors and cables between poles, towers, trenches, pylons, and buildings; setting lines in place; and using winches to adjust tension.

C. Typical tools used: hand tools, power drills, conduit benders, saws, voltage or current meters, and wire or cable cutters.

Subp. 14. **Code No. 714, Millwright.**

A. Nature of work: assembling, installing, aligning, and dismantling mechanical, hydraulic, pneumatic, power generation, and electrical machinery in commercial and industrial sites.

B. Typical duties:

(1) Replacing or repairing defective parts of machine and adjusting clearances and alignment of machinery moving parts.

(2) Aligning machinery and equipment using hoists, jacks, hand tools, squares, rules, micrometers, plumb bobs, lasers, optical equipment, and alignment wire.

(3) Connecting power unit to machines or steam piping to equipment, and testing unit to evaluate its mechanical operation.

(4) Repairing, revising, and lubricating machines and equipment.

(5) Assembling and installing equipment using hand tools and power tools including welding and rigging incidental to that work.

(6) Positioning steel beams to support bedplates of machinery and equipment using blueprints and schematic drawings to determine work procedures.

(7) Signaling crane operator to lower basic assembly units to bedplate and align unit to centerline.

(8) Inserting shims, adjusting tension mounts and bolts, or positioning parts using hand tools, measuring instruments, and power tools to set specified clearances between moving and stationary parts.

(9) Moving machinery and equipment using hoists, dollies, rollers, and trucks.

(10) Attaching moving parts and subassemblies to basic assembly unit using hand tools and power tools.

C. Typical tools used: gauges or inspection fixtures, hammer, hoists, levels, precision measuring equipment, micrometers, pullers, punches or nail sets, drill press, and hand tools necessary to perform work in items A and B.

Subp. 15. **Code No. 715, Painters.**

A. Nature of work: Applying coats of primer, paint, sealer, stain, varnish, enamel, lacquer, and special coatings to decorate and protect interior or exterior surfaces, trimmings, and fixtures of buildings and structures. Applying wall coverings both paper and vinyl, and carpet to walls and ceilings.

B. Typical duties:

(1) Preparing, applying, and removing all types of coatings and coating systems in relation to all painting, decorating, protective coatings, coating and staining of concrete floors, toppings, waterproofing, masonry restoration, fireproofing, fire retarding, metal polishing, refinishing, sealing, lining, fiberglassing, E-Glass fiberglass, carbon fiber, encapsulating, insulating, metalizing, and flame spray.

(2) Each and all such applications, and similar or substitute applications, on all surfaces, interior and exterior, to include, but not be limited to: residences; buildings; structures; industrial, power, chemical, and manufacturing plants; bridges; tanks; vats; pipes; stacks; light- and high-tension poles; parking, traffic, and air strip lines; trucks; automobile and railroad cars; ships; aircraft; and all machinery and equipment.

(3) Any and all material used in preparation, application, or removal of any paint, coatings, or applications, including, but not limited to: the handling and use of thinners, dryers, sealers, binders, pigments, primers, extenders, air and vapor barriers,

emulsions, waxes, stains, mastics, plastics, enamels, acrylics, alkyds, epoxies, epoxy injection and T-Lock welding, sheet rubber, foams, and seamless and tile-like coatings.

(4) All preparation for and removal of any and all materials for finishes, such as deep cleaning, patching, all levels of finishing, taping and finishing, skim coating, pointing, caulking, high-pressure water, chemical, and abrasive blasting, environmental blasting, wet/dry vacuum work, chemical stripping, scraping, air tooling, bleaching, and steam cleaning.

(5) Wall covering work including, but not limited to: all material applied to walls or ceilings with adhesive, staples, or tacks, by stretching or adhered by any other method, including all papers, vinyls, flexible woods, fabrics, borders, metals, upholstered wall systems, the fabric-covered panels made of plastic, wood, or prefinished products of micro fiberglass, acrovin, and various plastic wall coverings such as wainscoat, caps, corner moldings, and accessories.

(6) Any and all preparation of walls and ceilings such as scraping or any methodology for removal of existing materials, including patching, leveling, skim coating, and priming.

(7) Mixing, testing, preparing, and manufacturing of paint, coating, caulking, putty, and sealants, and handling of lead, color, oil, lacquer, varnish, synthetic resin, and acrylic paints and coatings, including any and all materials for the same.

(8) All processes and procedures for decontamination of all contaminated areas and all cleanup of any type of debris caused by or during the preparation or application of any work described in this classification.

(9) Pavement marking including hand-brushed, hand-sprayed, and the hand taping of pavement markings, and the operation of compressors for purposes of hand spraying for pavement marking.

C. Typical tools used:

(1) Hand tools – hopper guns, pneumatic spray texture guns, spray texture guns, stucco patching guns, compressors, pasting machines, heat guns, sandblasting equipment.

(2) Paint sprayers – airless spray equipment, power brushes, spray guns, electrostatic sprayers.

(3) Power sanders – disk sanders, electric paint removers, paint stripping equipment, sanders.

(4) Pressure or steam cleaners – hydroblasters, pressure washers, steam cleaning equipment, wallpaper steamers.

(5) Putty knives – drywall taping knives, patching knives, spackling knives.

Subp. 16. **Code No. 716, Piledriver.**

A. Nature of work: performing pile work and driving piles of any type, including, but not limited to, wood, steel, concrete, and composite materials. Includes bridge work, bridge demolition, and pile driving work related to waterfront and marine installations. Set up and operation of vibratory equipment.

B. Typical duties:

(1) Handling, laying out, driving, cutting, and splicing of wood, metal, or concrete piling regardless of purpose or materials (for example, sheets, I-beams, helical and soil anchors of all material, pile caps, and welding to piling).

(2) Setting up hoisting equipment for raising and placing wooden or concrete piles or steel sheeting sections to cable of hoist, using chain, cable, or rope. Pumping of material into piling.

(3) Signaling worker operating hoisting equipment to lift and place the wooden or concrete pile or steel sheeting section. Installing safety equipment incidental to pile driving work.

(4) Guiding wooden or concrete pile or steel sheeting section using tab line (rope) or rides on.

(5) Pile or steel sheeting to guide it into position. Pulling, pushing, or prying wooden concrete pile or steel sheeting into place while pile or sheeting is supported by hoisting equipment. Bracing forms in place with timbers, tie rods, and anchor bolts, for use in building concrete piers, footings, and walls and falsework in bridge construction.

(6) Assembling, disassembling, and rigging of the pile driving equipment and hoisting equipment when used in pile driving.

(7) Conducting underwater diving that is incidental to pile driving work. Diving below water to perform welding and other work incidental to pile driving, highway and commercial construction, and the tending and assisting of divers by performing such tasks as monitoring divers, handing material to divers, and handling of equipment used while driving.

C. Tools used: operating pile drivers mounted on skids, barges, crawler treads, or locomotive cranes or any hoisting equipment to drive pilings for retaining walls, bulkheads, and foundations of structures, such as buildings, bridges, and piers. Torches, cable cutters, chain saws, and all necessary welding equipment. Vibratory driver or extractor for piling and sheeting operations.

Subp. 17. **Code No. 717, Pipefitters – steamfitters.**

A. Nature of work: performing and assisting in fabricating, assembling, installing, altering, dismantling, maintaining, and replacing pipe systems, pipe supports, and related hydraulic and pneumatic equipment for steam, hot water, heating, cooling,

lubricating, and industrial production and processing systems (ammonia, refrigerant, steam, hot water, chilled water, process piping, etc.).

B. Typical duties:

(1) Fabricating, assembling, and installing piping and tubing systems that are to conduct steam, air, and other fluids, solids, or gases in and around buildings and structures, including hangers, restraints, and supports for such systems.

(2) Cutting, threading, and hammering pipe to specifications using tools such as saws, cutting torches, and pipe threaders and benders.

(3) Assembling and securing pipes, tubes, fittings, and related equipment according to specifications by welding, brazing, cementing, soldering, and threading joints.

(4) Attaching pipes to walls, structures, and fixtures such as radiators or tanks using brackets, clamps, tools, or welding equipment.

(5) Measuring and marking pipes for cutting and threading.

(6) Installing vacuum piping systems with manufacturing or industrial facilities.

(7) Installing and maintaining pneumatic components of machines and equipment, such as pumps and cylinders, using hand tools.

(8) Joining ductile iron and plastic pipes when such pipes will be under pressure and used as distribution lines for water mains and sewers.

(9) Installing piping systems for refrigeration, cooling, and heating equipment, including, but not limited to, compressors, coils, pumps, tanks, gauges, valves, tubes, and pipes. See "Sheet Metal Worker" for the installation of sheet metal duct work.

(10) Performing welding and burning which is incidental to the work of pipefitting or steamfitting.

(11) Locating, cutting, and boring holes in structures, such as bulkheads, decks, walls, and mains, prior to pipe installation, using hand and power tools. Setting sleeves in the penetrations.

(12) Dismantling piping systems and equipment, including, but not limited to, heating, cooling, process, refrigeration, and HVAC systems.

(13) Installing, removing, altering, maintaining, and repairing solar panels and piping, or parts thereof, that are related to the heating or cooling system.

(14) Installing, removing, altering, maintaining, and repairing geothermal piping, or parts thereof, used in relation to the heating or cooling system.

(15) Testing and balancing hydronic equipment and piping.

(16) Labeling and stenciling piping and equipment under this trade classification.

(17) Unloading, moving, handling, rigging, placing, and setting of piping and equipment related to work under this classification.

(18) Installing, repairing, or replacing flue pipe and breaching when made of steel or plastic pipe.

(19) Laying out mechanical pads, curbs, and bases.

(20) Installing instrumentation and controls as they pertain to HVAC equipment.

(21) Starting up, servicing, and commissioning HVAC systems.

(22) All low-voltage wiring and controls as it relates to HVAC equipment.

(23) Installing, removing, altering, maintaining, and repairing combustible and noncombustible gas systems and piping, or parts thereof, relating to heating, cooling, and process equipment.

(24) Increasing pressure in pipe systems and observing connected pressure gauges to test system for leaks. Performing other work in connection with the installation and testing of heating and cooling apparatus and control devices.

C. Typical tools used:

(1) Levels – automatic levels, laser levels, pocket levels, and two-hole pins.

(2) Power grinders – offset grinders, pedestal grinders, portable grinders, and stationary grinders.

(3) Screwdrivers – flat screwdrivers, impact screwdrivers, and Phillips head screwdrivers.

(4) Taps or dies – dies, drophead dies, and taps.

(5) Welders – alternating current/direct current (AC/DC) welders, arc welders, and welding machines.

(6) Torches – cutting and brazing.

(7) Wrenches – combination, pipe wrench, channel locks, crescent wrench, sockets and ratchets, and vise grips.

(8) Squares – Tri-square and framing square.

(9) Hammers – ball peen, rubber, and framing.

(10) Power tools – Sawzall, band saws, drills, drill presses, screw guns, and core drills.

Subp. 18. **Code No. 718, Plasterers.**

A. Nature of work: applying coats of plaster or stucco to interior or exterior walls, ceilings, and partitions of buildings and structures to produce a finished surface. Installing exterior insulation finish systems (EIFS). Fireproofing building assemblies

with plaster materials, sprayed fiberglass, or other similar materials, whether applied to gypsum, metal lath, or directly.

B. Typical duties:

(1) Applying plaster to lath, masonry, drywall, or other bases; applying stucco to exterior walls using trowels, brushes, or spray guns. Sealing joints between plasterboard or other wallboards to prepare the wall surface for veneer plaster system.

(2) Spraying fireproof insulation onto gypsum, lath, or other surfaces.

(3) Creating decorative textures in finish coat systems using brushes, trowels, sand, pebbles, or stones.

(4) Applying insulation to building exteriors by installing prefabricated insulation systems over existing walls or by covering the outer wall with insulation board, reinforcing mesh, and a base coat.

(5) Skim coating various manufacturers' brand names of thin coat or plaster veneer.

(6) Applying bonding agents; cleaning and preparing surfaces for applications of plaster, cement, stucco, or similar materials.

(7) Grouting and filling of door bucks and similar installations.

(8) Applying and setting stone imitation, any patent material when cast, crushed stone, marble, ceramic chips, broken glass embedded in plaster, or similar materials.

(9) Applying malleable plastic materials and epoxy materials.

(10) Applying weatherproof, decorative coverings to exterior surfaces of buildings such as troweling or spraying on coats of stucco.

(11) Spraying acoustic materials or texture finish over walls and ceilings.

(12) Molding and installing ornamental plaster pieces, panels, and cornices.

(13) Applying plaster or stucco siding materials.

C. Typical tools used:

(1) Edgers – corner tools, inside step tools, ornamental cut and shape tools, outside step tools.

(2) Floats – darbies.

(3) Hammers – claw hammers and plasterers' hammers.

(4) Ladders – stilts.

(5) Paint sprayers – plaster spraying machines and spray guns.

(6) Saws – hand saws and keyhole saws.

(7) Trowels – featheredgers, hand trowels, power trowels, and scratcher trowels.

(8) Utility knives – trimming knives.

Subp. 19. **Code No. 719, Plumbers.**

A. Nature of work: performing or assisting at the business, trade, or work having to do with the installation, removal, alteration, or repair of plumbing and drainage systems or parts thereof, which include, but are not limited to, plumbing fixtures, plumbing appliances, and plumbing appurtenance.

B. Typical duties:

(1) Installing, removing, altering, maintaining, and repairing all potable and nonpotable water supplies and distribution pipes, all plumbing fixtures and traps, all drainage and vent pipes, all building drains, and their associated parts, including their respective joints and connections; devices and appurtenances including potable and nonpotable water treatment or using equipment.

(2) Any worker assisting a plumber shall be classified as a plumber.

(3) Locating and marking position of pipe, pipe connections, and passage holes, and installing sleeves for pipes in walls and floors using all tools, hand or powered, to complete this task.

(4) Cutting openings in walls and floors to accommodate pipe and pipe fittings using hand and power tools.

(5) Joining pipes with screws, bolts, couplings, clamps, cement, fittings, solder, brazing, welding, plastic solvent, caulk joints, push gasket, o-ring connection, compression, and similar materials.

(6) Testing all piping, fixtures, appliances, and appurtenances according to Minnesota Rules, chapter 4715.

(7) Meeting with the proper administration authority to verify the work has been performed according to Minnesota Rules, chapter 4715.

(8) Installing, removing, altering, maintaining, and repairing drainage and sewage lines and their parts.

(9) Dismantling piping systems to be replaced or reconditioned.

(10) Installing, removing, altering, maintaining, and repairing supports for all piping, equipment, appurtenances, appliances, fixtures, and their parts for the proper installation of the plumbing system.

(11) All drip pans that are installed in conjunction with the plumbing or piping system.

(12) All low voltage used to operate the plumbing or piping systems.

(13) All erection and dismantling of any equipment used to access a plumbing or piping system for installation, removal, alteration, maintenance, or repair.

(14) Installing, removing, altering, maintaining, and repairing piping and facilities that receive or treat the discharge from plumbing fixtures and their associated parts.

(15) Back filling and compacting ditches and excavations using hand-operated machines where plumbing systems are installed.

(16) Removing dirt, concrete, bituminous, or similar materials for installation, removal, alteration, maintenance, or repair of a plumbing system.

(17) Installing, removing, altering, maintaining, and repairing medical gas or gases used in the medical industry, or parts thereof.

(18) Installing, removing, altering, maintaining, and repairing vacuum piping systems, vacuum cleaning and dust collection systems, and their parts in a nonmanufacturing facility.

(19) Installing, removing, altering, maintaining, and repairing combustible and noncombustible gas systems and piping and their parts, including venting.

(20) Rigging, lifting, loading, unloading, and stockpiling, by hand or machine, all equipment fixtures, appliances, appurtenances, and piping related to the plumbing system.

(21) Labeling or stenciling piping, valves, equipment, and their parts under this trade classification.

(22) Backing used for support for all plumbing fixtures, appliances, and accessories.

(23) Installing plumbing accessories.

(24) Installing sheetlead and other like materials to protect workers and the general public.

(25) Installing, removing, altering, maintaining, and repairing solar panels, piping, and their parts related to the plumbing system.

(26) Installing, removing, altering, maintaining, and repairing geothermal piping and their parts used in relation to the plumbing system.

(27) Installing material used to protect the building from smoke and fire damage as related to the plumbing and piping systems. Special materials are applied where the piping for the plumbing system has penetrated through floors, walls, and ceilings in order to protect from smoke and fire damage in case of fire.

(28) Venting of subsoils, from the lowest finished floor to the atmosphere, for removal of gases.

(29) Installing plates or equivalent to protect all plumbing pipe and tubing.

(30) Installing, removing, altering, maintaining, and repairing systems or parts of systems carrying water free from impurities present in amounts sufficient to cause disease or harmful physiological effects and conforming in its bacteriological and chemical quality to parts 4720.0200 to 4720.2300 or the regulations of the local public health authority having jurisdiction.

(31) Installing, removing, altering, maintaining, and repairing associated with setting and connecting to the plumbing system all house tanks, surge tanks, pressure tanks, hot water heaters, or their parts.

(32) Installing, removing, altering, maintaining, and repairing piping and the setting of all equipment, appliances, and appurtenances in connection with water booster, pumping stations, and water filtration plants, or parts thereof inside the structure.

(33) Installing, removing, altering, maintaining, and repairing water pumps and piping, such as water lifts, hydraulic rams, and water boosters worked by water, electric, or air power used in the plumbing system, or parts thereof.

(34) Installing, removing, altering, maintaining, and repairing suction and discharge of central distributing and boosting stations in connection with water or fire lines, or parts thereof.

(35) Installing, removing, altering, maintaining, and repairing fire pumps, tanks, or water main connections and standpipes with hose connections and cabinets, or parts thereof.

(36) Installing, removing, altering, maintaining, and repairing multipurpose potable water systems under Minnesota Statutes, chapter 299M.

(37) Installing, removing, altering, maintaining, and repairing sterilizing systems and sterilizing equipment, or parts thereof.

(38) Installing, removing, altering, maintaining, and repairing piping, equipment, appliances, and appurtenances for gasoline, oil, and lubricating systems, or parts thereof.

(39) Installing, removing, altering, maintaining, and repairing piping for Ozone systems, or parts thereof.

(40) Installing, removing, altering, maintaining, and repairing soda fountains, bars, restaurant equipment, piping, or parts thereof.

(41) Installing, removing, altering, maintaining, and repairing the wash down and drain piping for all chutes, or parts thereof.

(42) Installing, removing, altering, maintaining, and repairing pipe made from any metal, tile, glass, wood, transits, plastic, rubber, or any other material or products manufactured into pipe, usable in the piping industry, regardless of size, shape, or method of making joints, whether or not the piping is installed inside or outside, above the ground or below ground, encased or exposed, or pressure or nonpressure.

C. Typical tools used:

(1) Drain or pipe cleaning equipment – drain cleaning cables, hand spinners, sectional drain cleaning machines, toilet augers.

(2) Pipe or tube cutters – pipe cutters, power pipe cutters, ratcheting polyvinyl chloride (PVC) cutters, tubing cutters.

(3) Pipe wrenches – end pipe wrenches, offset pipe wrenches, straight pipe wrenches.

(4) Pressure indicators — air pressure gauges, heavy duty water pressure gauges, maximum reading water pressure gauges, water pressure gauges.

(5) Specialty wrenches – chain wrenches, spud wrenches, strainer wrenches, water heater element removal wrenches.

Subp. 20. **Code No. 720, Roofer/waterproofer.**

A. Nature of work: applying and installing any and all types of roofing materials. For sheet metal roofs see "Sheet Metal Workers."

B. Typical duties:

(1) Installing slate and tile and all substitute materials taking the place of slate and tile used for roofing, such as asbestos slate or tile, cement, composition or Spanish tile, composition or wood shingles, or shakes, metal shingles or tile, or other substitute materials used on steep, with necessary metal flashing to make watertight. All solar or photovoltaic cell-type shingles used to transform solar energy to electrical energy.

(2) Cementing in, on, or around slate and tile roofs. The laying of felt, paper, or substitute material beneath the slate and tile or substitute materials. The dressing, punching, and cutting of all roof slate or tile, either by hand or machinery.

(3) Installing all forms of plastic, slate, slag, and gravel; asphalt and composition roofing; rock asphalt mastic when used for damp and waterproofing; prepared paper; compressed paper and chemically prepared paper; and burlap with or without

coating. Installing all damp resisting preparations regardless of the method of application in or outside of building. Installing damp courses, sheeting, or coating on foundation work and tarred roofs. Laying of the tile or brick when laid in asphalt or pitch tar.

(4) Installing and applying new materials used in roofing, waterproofing, encapsulation, and containment process, including all forms of elastomeric or plastic (elastoplastic), or both, roofing systems, both sheet and liquid applied, whether single-ply or multi-ply. Installing or vacuuming of aggregates, vegetative materials, or stone, used as a ballast for inverted roofing membrane assembly, or roof of similar construction where insulation is laid over the roofing membrane. Sealing and caulking seams and joints on these elastoplastic systems to ensure watertightness. Applying liquid-type elastoplastic preparation for roofing, damp, or waterproofing when applied with a squeegee, trowel, roller, or spray equipment whether applied inside or outside of a building. Priming surfaces to be roofed, damp, or waterproofed, whether done by roller, mop, swab, three-knot brush, or spray systems. Waterproofing all types of preformed panels. All air barriers that are applied with materials that are traditionally used for roofing, waterproofing, and dampproofing systems including, but not limited to, sprays, epoxies, membranes, and bituminous products.

(5) Applying all types of spray-in-place such as urethane or polyurethane, and the coatings that are applied over them.

(6) Applying roof insulation when the insulation material is applied as an integral part of the roofing system, whether the insulation material is applied as the first, last, or any other layer in between.

(7) Operating and servicing kettles, bulk tankers, stationary heating tankers, other types of equipment and tools used to accomplish this work (including heating systems for the operation of the equipment), compressors for applying roofing

material components, roof and mop carts, hydraulics, hand or power tools and equipment needed to apply waterproofing, and insulation and roofing materials.

(8) Handling, hoisting, and storing of all roofing, damp, and waterproofing materials and ballast. Set up ladders and scaffolding to provide safe access to work site.

(9) Tearing off or removing, or both, of any type of roofing, including ballast, all spudding, sweeping, drying, vacuuming, cleanup, or a combination of these, of any areas of any type where a roof is to be replaced.

(10) All cleaning, wire brushing, priming, and sealing of roof decks and surfaces that receive roofing, damp, or waterproofing.

C. Typical tools used:

(1) Blow torches – double-lock seamers, propane torches, single seamers, and torches.

(2) Hammers – claw hammers, plastic hammers, seaming hammers, and slate hammers.

(3) Hatchets – carpenters' hatchets, metro roofing hatchets, standards roofing hatchets, and wood shingling hatchets.

(4) Roof rippers – roofing spades, shingle rippers, tear-off bars, and tear-off shovels.

(5) Shears – clipping shears, foot squaring shears, membrane slitters, and slate cutters.

(6) Welders – heat welders and seam welders.

(7) Hand tools – rollers, scissors, insulation knife, roofing knife, trowels, awls, and tin snips.

(8) Power tools – pneumatic nail gun, powder actuated nail guns, air nail gun, screw guns, power saws, and power drills.

Subp. 21. **Code No. 721, Sheet metal workers.**

A. Nature of work: fabricating onsite, assembling, installing, and replacing sheet metal products and equipment, including control boxes, drainpipes, ductwork, furnace casings, and other ferrous and nonferrous products of varying degrees of gauge thickness, including PVC or fiberglass ductwork (typically nonstructural in nature). This does not include sheeting work performed by carpenters or ironworkers.

B. Typical duties:

(1) Installing, repairing, and altering such assemblies as ductwork for heating, ventilation, air conditioning, and exhaust systems, rain gutters and downspouts, furnace casings, air-to-air exchangers (HRV), and heat recovery systems and under floor systems.

(2) Installing panel and structures for refrigeration equipment. See subpart 17, Pipefitter – Steamfitter for installation of refrigeration units or systems.

(3) Maneuvering completed units into position for installation and anchoring the units.

(4) Installing sheet metal roofing and siding materials including soffit and fascia, except as installed by a carpenter or ironworker.

(5) Setting up and operating fabricating machines to cut, bend, and straighten sheet metal.

(6) Shaping metal over anvils, blocks, or forms, using hammers.

(7) Fastening seams and joints together with welds, bolt cement, rivets, and solder, caulks metal drive clips, and bonds to assemble components into products or to repair sheet metal items.

(8) Operating soldering and welding equipment to join sheet metal parts, inspecting assemblies, and smoothing seams and joints of burred surfaces.

(9) Removing sheet metal roofing when reroofing with sheet metal materials will occur.

(10) Testing and balancing air handling equipment and ductwork.

(11) Digging and backfilling for all underground duct systems.

(12) Insulating ductwork, plenums, and other air handling components.

(13) Installing lockers.

(14) Installing metal toilet partitions.

(15) Installing trash chutes.

(16) Installing laundry chutes.

(17) Installing metal shelving.

(18) Installing solar panels and solar shingle panels.

(19) Fabricating, installing, repairing, or replacing siding and panels.

(20) Fabricating, installing, repairing, or replacing all blowpipe, dust collection, and material handling systems.

(21) Fabricating, installing, repairing, or replacing all stainless steel kitchen equipment including, but not limited to, countertops, sinks, coolers, bars, exhaust hoods, ovens, and cabinets.

(22) Fabricating, installing, repairing, or replacing all cornice work.

(23) Installing, repairing, or replacing skylights.

(24) Fabricating, installing, repairing, or replacing all chimney liners, flue pipes, and breechings.

(25) Fabricating, installing, repairing, or replacing all flashings, counter flashings, or coping.

(26) Demolishing HVAC systems and ductwork when reused.

(27) Sealing HVAC systems and ductwork.

(28) Laying out mechanical pads, curbs, and bases.

(29) Installing, repairing, or replacing radiation covers.

(30) Fabricating, installing, repairing, or replacing all drip pans.

(31) Fabricating, installing, repairing, or replacing all brackets, hangers, or fasteners.

(32) Installing and wiring instrumentation and controls as they pertain to HVAC equipment.

(33) Installing duct-mounted smoke detectors.

(34) Starting up, servicing, and commissioning HVAC systems.

(35) Fabricating, installing, repairing, or replacing air filtration systems.

(36) Installing air exchanger systems and heat recovery systems.

(37) Fabricating, installing, repairing, or replacing sheet metal lagging over insulated pipes, ducts, tanks, and equipment.

(38) Cutting openings in walls and floors to accommodate equipment using necessary tools and equipment.

(39) Fabricating, installing, repairing, or replacing louvers.

(40) Installing walk-in coolers.

C. Typical tools used:

(1) Hammers – ball peen hammers, bumping hammers, setting hammers, and tinners hammers.

(2) Metal cutters – aviation snips, bull snips hand notchers, power notchers, and V - notchers.

(3) Punches or nail sets or drifts – center punches, prick punches, punches, and rotary punches.

(4) Sequential forming machine – bar folders, bending machines, spiral duct machines, and wiring machines.

(5) Shears – power shears, ring and circular shears, squaring shears, and unishears.

(6) Workshop presses – drill presses, hand brakes, power presses, and rivet presses.

(7) Assembly tools – screw guns, cleatlock tools, sockets and ratchets, hand seamers, various screwdrivers, hand crimpers, drive pullers, and dividers.

Subp. 22. **Code No. 722, Sprinkler fitters.**

A. Nature of work: installing, inspecting, and maintaining fire protection and fire control systems, including water mains (overhead and underground), fire hydrants, hydrant mains, standpipes, hose connections to sprinkler systems, sprinkler tank heaters, air lines and thermal systems used in connection with sprinkler and alarm systems, and all tanks and pumps connected thereto, including CO_2 and Cardox systems, dry chemical systems, foam systems, Halon, and all other fire protection systems.

B. Typical duties:

(1) Installing piping, tubing, appurtenances, and equipment.

(2) Locating and marking position of pipe and pipe connections and passage holes for pipes in walls using ruler, level, and plumb bob.

(3) Cutting openings in walls and floors to accommodate pipe and pipe fittings using hand and power tools. Cutting and threading pipe using pipe cutters, cutting torch, and pipe-threading machine.

(4) Assembling and installing valves, pipe fittings, and pipes composed of metals such as iron, steel, copper, and brass, and nonmetals such as plastic using hand and power tools.

(5) Joining pipes by use of screws, bolts, couplings, clamps, cement, fittings, solder, brazing, welding, and plastic solvent.

(6) Filling pipe with water or air and reading pressure gauges to determine whether system is leaking.

(7) Dismantling piping systems to be replaced or reconditioned.

(8) Inspecting fire protection systems to ensure deficiencies are identified and corrected.

C. Typical tools used:

(1) Drills – power drills, hand drills, and core drills.

(2) Levels – automatic levels, laser levels, pocket levels, and two-hole pins.

(3) Pipe or tube cutters – pipe cutters, power pipe cutters, ratcheting polyvinyl chloride (PVC) cutters, and tubing cutters.

(4) Pipe wrenches – offset pipe wrenches and straight pipe wrenches.

(5) Power grinders – offset grinders, pedestal grinders, portable grinders, and stationary grinders.

(6) Pressure indicators – air pressure gauges and water pressure gauges.

(7) Screwdrivers – flat, Phillips, and impact screwdrivers.

(8) Specialty wrenches – chain wrenches.

(9) Taps or dies – dies, drophead dies, and taps.

(10) Welders – alternating current/direct current (AC/DC) welders, arc welders, and welding machines.

Subp. 23. **Code No. 723, Terrazzo workers.**

A. Nature of work: installing durable and decorative surfaces on floors, walls, and ceilings. Terrazzo work includes the following and similar materials: venetian enamel and terrazzo, cement terrazzo, magnesite terrazzo, Dex-O-Tex terrazzo, epoxy matrix terrazzo, exposed aggregate, and polished, honed, or sand finished materials.

B. Typical duties:

(1) Installing marble, mosaic, venetian enamel, and terrazzo; cutting and assembling of mosaics and art ceramics; casting terrazzo on the job site; and rolling of terrazzo work.

(2) Carving, cutting, and setting marble, slate, including slate blackboards, stone, albereen, carrara, sanionyx, vitrolite, and similar opaque glass, scagliola, marbleithic, and all artificial, imitation, or cast marble of whatever thickness or dimension. This applies to all interior work, such as sanitary, decorative, and other purposes inside of buildings of every description wherever required, including all polished, honed, or sand finished; cutting and fitting of those materials after they leave mills or shops, all accessories in connection with such work, and laying marble tile, slate tile, and terrazzo tile.

(3) All scratch coat on walls and ceilings where terrazzo is to be applied shall be done by plasterers, with an allowance of not less than a one-half inch bed to be conceded to terrazzo workers.

(4) All bedding above concrete floors or walls, the preparing, cutting, laying, or setting metal, composition, or wooden strips and grounds, and the laying and cutting of metal strips, lath, or other reinforcement, where used in terrazzo work.

(5) Rustic or tough washed for exterior or interior of buildings placed either by machine or by hand, and any other kind of mixtures of plastics composed of chips or granules of marble, granite, blue stone, enamel, mother of pearl, quartz, ceramic-colored quartz, and all other kinds of chips or granules when mixed with cement, rubber, neoprene, vinyl, or magnesium chloride.

(6) Applying resinous or chemical substances used for seamless flooring systems.

(7) Applying binding materials when used on walls, floors, ceilings, stairs, saddles, or any other part of the interior or exterior of the building; other work not considered a part of the building such as, but not limited to, fountains or swimming pools; and all other substitutes that may take the place of terrazzo work.

(8) Finishing cement floors where additional aggregate of stone is added by spreading or sprinkling on top of the finished base and troweled or rolled into the finish and then the surface ground by grinding machines.

(9) A terrazzo finisher's work consists of assisting, helping, or supporting the terrazzo mechanic by performing historic and traditional work assignments required to complete the proper installation of the work.

C. Typical tools used:

(1) Laying out stone and tile projects; maneuvering heavy objects; mixing and matching paints, stains, and pigments; mixing materials such as mortar, grout, concrete, plaster, and stucco to proper consistency, and preparing surface and site for masonry work.

(2) Reading blueprints and technical drawings, repair work orders, and schematics and specifications; and using measuring devices in construction work such as transits or measuring tapes, and using tile and masonry adhesives.

Subp. 24. **Code No. 724, Tile setters.**

A. Nature of work: applying tile to floors, walls, ceilings, stair treads, promenade of roof decks, garden walks, swimming pools, and all places where tiles may be used to form a finished surface for practical use, sanitary finish, or decorative purpose, in the following materials: burned clay products (used in the tile industry, glazed or unglazed), terra cotta tile, unit tile, ceramic veneer, machine-made terra cotta, and similar materials. Tile setters set tile, repair and patch tile, lay out the work, and install substrates; install showers, countertops, floors, and steps; lay quarry tile; and install ceilings, mantels, hearths, swimming pools, domes, columns, and arches.

B. Typical duties:

(1) Laying, cutting, or setting tile where used for floors, walls, ceilings, walks, promenade roofs, stair treads, stair risers, facings, hearths, fireplaces, and decorative inserts, together with any marble plinths, thresholds, or window stools used in connection with any tile work.

(2) Preparing and setting all concrete, cement, brickwork, or other foundation or materials that may be required to properly set and complete such work; setting or bedding all tiling, stone, marble, composition, glass, mosaic, or other materials forming the facing, hearth, or fireplace of a mantel, or the mantel complete, together with the setting of all cement, brick work, or other materials required in connection with that work.

(3) Slabbing and fabricating tile mantels, counters, and tile panels of every description, and the erection and installation of same; building, shaping, forming, constructing, or repairing fireplace work, whether in connection with a mantel hearth

facing or not, and setting and preparing material, such as cement, plaster, mortar, brickwork, iron work, or other materials necessary for the proper and safe construction and completion of such work, except that a mantel made exclusively of brick, marble, or stone, shall be conceded to be bricklayers', marble setters', or stonemasons' work, respectively.

(4) The term "tile" means burned clay products, as used in the tile industry, either glazed or unglazed, and to all composition materials made in single units up to 15" x 20" x 2", except quarry tiles larger than 9" x 9" x 1'/4", also to mixtures in tile form of cement, plastics, and metals that are made for and intended for use as a finished floor surface, whether upon interior or exterior floors, stair treads, promenade roofs, garden walks, interior walls, ceilings, swimming pools, and all places where tile may be used to form a finished surface for practical use, sanitary finish, or decorative purposes, for setting all accessories in connection therewith, or for decorative inserts in other materials.

(5) All terra cotta called unit tile in sizes of 6" x 12" or less, regardless of method of installation, quarry tile 9" x 9" x 1'/4" or less; split brick or quarry tile or similar materials where the bed is floated or screeded and the joints grouted. Where the work is installed by tile layers, the grouting and cleaning shall be supervised by the mechanic. The bedding, jointing, and pointing of the above materials shall be the work of the craft installing the same. All clay products known as terra cotta tile, unit tile, ceramic veneer, machine-made terra cotta, and like materials in sizes 6" x 12" and less, regardless of the method of installation. Where the preponderance of materials to be installed comes within the provisions of this classification and when there is also some material in excess of the sizes provided for in this classification, the tile setter shall install all such materials.

(6) Measuring and cutting metal lath to size for walls and ceilings with tin snips. Tacking lath to wall and ceiling surfaces with staple gun or hammer for purposes of applying tile to the area.

(7) Spreading concrete on subfloors with trowel and leveling it with screed for purposes of applying tile to the area.

(8) Spreading mastic or other adhesive base on roof deck, using serrated spreader to form base for promenade tile.

(9) Cutting and shaping tile with tile cutters and biters.

(10) Positioning tile and tapping it with trowel handle to affix tile to plaster or adhesive base.

C. Typical tools used:

(1) Floats – bull floats, grout floats, magnesium floats, and wood floats.

(2) Hammers – claw hammers and rubber hammers.

(3) Levels – builders' levels, laser levels, and water levels.

(4) Plaster or mortar mixers – colloidal mixers, mixing drills, portable mixers, and vertical shaft mixers.

(5) Power grinders – angle grinders, base grinders, mini grinders, and stone grinders.

(6) Power saws – grout saws, power tile saws, power undercut saws, and wet saws.

(7) Scaffolding – ladder jacks, mechanical scaffolds, rolling scaffolds, and stationary scaffolds.

(8) Trowels – buttering trowels, grouting trowels, notch trowels, and point trowels.

Subp. 25. **Code No. 725, Tile finishers.**

A. Nature of work: finisher work includes mixing grout, grouting, and surfacing all types of tile, cutting tile, and sealing surfaces. Tile finishers work primarily after the

tile is set and adhered to the floor or wall by tile setters. Tile finisher work also includes mixing mortars, epoxy resins, and adhesives and cleaning, treating, and sealing surfaces.

B. Typical duties:

(1) Mixing grout.

(2) Grouting.

(3) Surfacing all types of tile.

(4) Cutting tile.

(5) Sealing surfaces.

(6) Mixing mortars, epoxy, and adhesives.

(7) Cleaning, treating, and sealing surfaces.

(8) Preparing floors.

C. Typical tools used:

(1) Sponges.

(2) Rubber floats.

(3) Cleaning brushes.

(4) Foam brushes.

(5) Wheel barrow.

(6) Tile cutter.

(7) Cutting boards.

(8) Tile saw.

(9) Brooms.

(10) Floor scrapers.

(11) Margin trowels.

Subp. 26. **Code No. 726, Drywall taper.**

A. Nature of work: drywall tapers perform seal joints between plasterboard and other wallboards to prepare wall surface for painting or papering or any type of wall finishing system.

B. Typical duties:

(1) Handling all materials after the initial unloading at the job site, including the distribution to the points of application.

(2) Erecting, moving, and dismantling all scaffolding.

(3) All preparatory work of taping, sealing, finishing, and sanding joints between plasterboard or other wallboard.

(4) Spotting, caulking, pointing, and sealing cracks and holes in walls and ceilings.

(5) Applying protective coverings prior to the application of the finish materials.

(6) Spackling surfaces and applying texture finishes where adhesive materials are used.

(7) Installing metal moldings at corners instead of sealant and tape.

(8) Removing all drywall material scraps and all cleaning work, including scraping of floors.

C. Typical tools used:

(1) Hand sprayers – (hand-operated) spray guns, hopper guns, patch guns, and texture sprayers.

(2) Ladders – drywall stilts.

(3) Paint rollers – corner rollers and texture rollers.

(4) Plaster or mortar mixers – drywall mud mixers.

(5) Putty knives – corner knives, joint knives, pivoting drywall knives, and wipedown knives.

(6) Saws – drywall (saws).

(7) Trowels – drywall trowels and radius trowels.

(8) Utility knives – banjos, corner bead tools, corner tools, feather edge drywall derbies, joint tape dispensers, mesh tape, mud pans, hawks, drywall floor scrapers, and drills. Automatic taping tools to include automatic tapers, angle boxes, angle beads, angle head handles, and flat boxes. Flat box handles, extendable handles, nail spotters, loading pumps, goosenecks, and filler adapters.

(9) Sanders – dustless drywall sanders, pole sanders, hand sanders, and dust barrier systems.

Subp. 27. **Code No. 727, Wiring system technician; technology circuits or systems technician.**

A. Nature of work: installing, inspecting, repairing, and servicing electronic and telecommunications systems.

B. Typical duties:

(1) Installing, repairing, and servicing radio, television, and recording systems and devices; systems for paging, intercommunication, public address, wired music, clocks, security and surveillance systems, and mobile radio systems; fire alarm and burglar alarm systems.

(2) Wiring low-voltage surface wiring and wiring in nonmetallic conduits and incidental shielded metallic conduit.

(3) Installing, repairing, and servicing, or a combination of these, the main distribution frame (MDF) where the permanent outside lines entering a building terminate and where the subscriber's line multiple cabling and trunk multiple cabling originate, usually located on the ground floor of a building.

(4) Installing, repairing, and servicing, or a combination of these, of the intermediate distribution frames (IDF), which provides flexibility in allocating the subscriber's number to the line unit or equipment in the office that is to be associated with the particular line. These frames are located on each floor of a building.

(5) Installing, repairing, and servicing, or a combination of these, of the subpanels (blocks). The subpanels are connecting devices where large feed cables terminate at the distribution frames.

(6) Installing or repairing common equipment or key service unit, or a combination of these. This equipment consists of a backboard assembly and an equipment mounting frame, which are utilized for connecting external telephones.

(7) Installing, repairing, and servicing, or a combination of these, the instruments, terminals, and sets. This equipment is at either end of a circuit, or at a subscriber's or user's terminal.

(8) Installing, repairing, servicing, or a combination of these, the ancillary or add-on equipment such as bells, buzzers, speaker phones, headsets, automatic dialers, and recorders.

(9) Installing, repairing, and servicing telephone cable. Telephone cable includes: network channel service cable, riser cables between floors of a building, distribution cables installed on each floor of a building in the floor or the ceiling, and outside wires between the telephone and the connection to the distribution cable.

C. Typical tools used: copper tester, fiber testers, level, pliers, wire cutters, measuring tape, wrench, wire stripper, needle nose pliers, power hand drill, soldering iron, and electric screw gun.

Subp. 28. **Code No. 728, Wiring system installer; technology circuits or systems installer.**

A. Nature of work: installing communications or low-voltage wiring systems, not including head end that is covered by the wiring systems technician.

B. Typical duties:

(1) Pulling wire and splicing wire connecting to "dead end."

(2) Installing peripheral devices.

(3) Pulling, splicing, and terminating cable connecting to the dead end.

C. Typical tools used: level, pliers, wire cutters, measuring tape, wrench, wire stripper, needle nose pliers, power hand drill, soldering iron, and electric screw gun

Subp. 29. **Code No. 729, Asbestos abatement or environmental remediation worker.**

A. Nature of work: removing asbestos from ceilings, walls, beams, boilers, mechanical equipment, and other structures following EPA and OSHA handling and removal requirements. Performing lead abatement and mold removal.

B. Typical duties:

(1) Erecting scaffolding related to abatement and remediation and seals off work area using plastic sheeting and duct tape.

(2) Positioning mobile decontamination unit or portable showers at entrance of work area.

(3) Building connecting walkway between mobile unit or portable showers and work area using hand tools, lumber, nails, plastic sheeting, and duct tape.

(4) Positioning portable air evacuation and filtration system inside work area.

(5) Spraying chemical solution over asbestos-covered surfaces using tank with attached hose and nozzle to saturate asbestos.

(6) Cutting and scraping asbestos from surfaces using knife and scraper.

(7) Shoveling asbestos into plastic disposal bags and seals bags using duct tape.

(8) Cleaning work area of loose asbestos using vacuum, broom, and dustpan.

(9) Placing asbestos in disposal bags and seals bags using duct tape.

(10) Dismantling scaffolding and temporary walkway using hand tools and places plastic sheeting and disposal bags into transport bags.

(11) Sealing bags using duct tape and loads bags into truck for disposal.

(12) Disinfecting structures or surfaces exposed to mold.

(13) Performing air sampling.

(14) Removing lead from surfaces by the use of sandblasting, water blasting, or other equipment.

C. Typical tools used: personal protective suits that completely isolate workers from the hazardous material. Most workers are also required to wear respirators while working, to protect them from airborne particles or noxious gases. The respirators range from simple versions that cover only the mouth and nose to self-contained suits with their

own air supply. A variety of hand and power tools, brooms, ladders, cutting torches, vacuums and scrapers, putty knife, sandblasters, and high-pressure water sprayers.

Subp. 30. **Code No. 730, Sign erector.**

A. Nature of work: sign makers and sign installers fabricate, install, repair, alter, maintain, and dismantle commercial signs, fluorescent signs, neon signs, billboards, bulletins, poster panel signs, post and panel signs, and vinyl letter signs.

B. Typical duties:

(1) Installing and servicing signs, designing, lettering, and pictorial work of any kind, including vinyl signs and vinyl substrates, and the preparing or the finishing of same, be it by hand brush, roller, spray, mechanical, or computer-aided, and by any other method or process pertaining to same electric, neon, and luminous tube signs.

(2) Manufacturing luminous tubes, which includes the coating and processing of tubes and the bending, repairing, and pumping for all tubes (on the project work site).

(3) Assembling, installing, altering, repairing, and dismantling signs, displays, electric and neon sign displays, fluorescent lighting fixtures, fluorescent lighting signs, neon signs, and neon letters.

(4) Wiring, assembling, servicing, and electrical maintenance of such signs and displays.

(5) Installing and servicing painted, computer-generated, and photographed signs.

(6) Preparing sign surfaces, patterns, and layouts.

(7) Applying vinyl lettering, decals, and cutout letters.

(8) Preparing and pouncing patterns and tracing all patterns.

(9) Designing and cutting out letters made of wood or like materials, such as plastic, Masonite, wallboard, cardboard, sheet metal, aluminum, and vinyl.

(10) Priming, finishing, and gilding letters.

(11) All pictorial work on signs and screen process work in its entirety, including photography and operation of projector.

(12) Repainting signs, including painting of capping on billboards, bulletins and poster panels, and banners by spraying and use of rollers.

(13) Computer-generated layout and application of vinyl letters printed on surfaces.

C. Typical tools used: hand tools and power tools, post-hole digger, shovel, operate air hammer, operate banding machine, utility knife, sandblaster, stencil knife, paint brushes, computer, and ink jet printer.