

2024 HEAVY AND HIGHWAY CONSTRUCTION DEFINITIONS

1106 Asphalt Raker

Distributes asphaltic materials evenly over road surface by raking and brushing material to correct thickness; may control screed to regulate width and depth of materials; directs Laborers when to add or take away material to fill low spots or to reduce high spots.

1112 Batching Plant Operator, Asphalt

Operates a stationary or portable batching scale that weighs out asphaltic materials. Adjusts scales for required weight of the materials. Operates controls that admit materials separately from storage hoppers to weighing bins. Observes scales or indicators that show when proper amount of materials have been made. Discharges materials from weighing bin into truck or other carrier. May operate all equipment necessary to support batching operations. May oil, grease or otherwise service or make adjustments, including welding. May measure materials by weight. May perform quality control and assurance. Performs other related duties.

1115 Batching Plant Operator, Concrete

Operates a stationary or portable batching scale that weighs out concrete materials. Adjusts scales for required weight of the materials. Operates controls that admit materials separately from storage hoppers to weighing bins. Observes scales or indicators that show when proper amount of materials have been made. Discharges materials from concrete plant or pugmill into truck or other carrier or mixer. May operate all equipment necessary to support batching operations. May oil, grease or otherwise including welding. May measure materials by volume or weight. May perform quality control and assurance. Performs other related duties.

1124 Concrete Finisher, Paving and Structures

Finishes the exposed surfaces of fresh concrete paving, median barrier and every element of concrete structures to the final trowels. Operates bridge deck finishing machine. Forms and finishes edges and joints. Finishes concrete curbs and gutters. Finishes exposed surface of concrete after forms have been removed by patching imperfections with fresh concrete, rubbing surface with abrasive stone, and directing others in removing excess or defective concrete with power tools. Performs other related duties.

1139 Electrician

Plans and directs the layout of metal electrical conduit, installs wiring systems, switch panels, buss bars; works on overhead distribution systems and underground distribution systems. Performs other related duties.

1143 Telecommunications Technician

Installs and troubleshoots communication equipment including cabling for the transmission of communication circuits. Terminates and tests communication circuits including video, voice and data. Installs communication equipment in buildings, outdoor cabinets, and pole mounted installations. Installs, terminates, and tests optical fiber cables as well as copper communication cable carrying less than 50 volts AC. Performs other related duties.

1144 *Communications Cable Installer*

Installs communication cable under direction of telecommunication technician including optical fiber and cable carrying less than 50 volts AC. Operates equipment associated with cable installation. Performs other related duties.

1145 *Traffic Signal/Light Pole Worker*

Sets forms, reinforcing steel, anchor bolts and pours/finishes concrete for traffic signal and light pole foundations. Assembles, erects, and plumbs traffic signal and light pole structures by bolting and other means. Installs signal spans, signal heads, signal detection, and lights on equipment. Installs cabling and wiring in signal and light poles, on signal and light spans and underground raceway systems. Properly identifies and terminates cables and wiring to appropriate equipment. Installs signal controllers and service equipment. Tests and troubleshoots system for proper operation. Performs other related duties.

1150 *Flagger*

A worker who directs traffic in or around a construction site. May use signs or devices to direct traffic. May help assemble, position, and clean devices or equipment used to direct traffic. Must be able to effectively communicate with the public. May require certain level of training by TxDOT specifications. Performs other related duties.

1151 *Form Builder/Setter, Structures*

Works from plans to build, assemble, fit together, align, plumb, and set in place forms for molding concrete structures. Forms may be wood, steel, aluminum, fiberglass, or any other type of material. Checks forms while concrete is being placed. Directs others in stripping forms after concrete is placed. May install miscellaneous materials integral to concrete structures. May install precast concrete elements. Prepares for slipforming traffic rail and median barrier. May install permanent metal deck forms. May work with power tools. Performs other related duties.

1160 *Form Setter, Paving and Curb*

Fits together, aligns, and sets to grade metal and wooden forms for placement for concrete paving and curbs. Works with survey crew to set stringline for paving, curb and gutter and curb. Performs other related duties.

1172 *Laborer, Common*

A general term used on construction work covering many unskilled classifications requiring work of a physical nature. A laborer works with all crews doing everything from pick and shovel work to cleaning up lumber with hammer, shoveling and placing concrete, uses air tools, cleans concrete joints and fills joints with sealing compound from bucket or with hose and nozzle from a central source, applies coating of oil to inside face of forms, may help set and strip forms, unloads and transports reinforcing steel, cures newly poured concrete, helps lower pipe into ditch for pipelayers, builds fences, works with dirt crew keeping construction layout stakes out of the way of dirt-moving equipment. May fine grade excavation and ditches, shovels hot asphalt material. May use power tools and other necessary equipment in demolition work. Does not ordinarily perform work permitting exercise of independent judgment or without close direction by other workers. Usually, an entry level position as the first step to learn a skill. Performs other related duties.

1175 Laborer, Utility

Performs a variety of manual duties, usually working in a utility capacity by working on multiple projects and tasks where demands require workmen with varied experience and ability to work without close direction. Unloads and transports reinforcing steel. May occasionally place and tie reinforcing steel. Directs common laborers in pouring concrete. Erects shoring and bracing. Assists in installation of pipe. Installs, operates, maintains dewatering systems. May assist equipment operators in positioning machines, verifying grades, and signaling operators to dumping positions to maintain grades as directed. Uses power tools and air tools. May work as lead man in a labor crew. Installs and maintains erosion control. Is more or less a general utility construction worker. May be a second step in learning a skill. Performs other related duties.

1187 Mechanic

Assembles, sets up, adjusts and maintains and repairs all types of construction equipment and trucks. May perform the duties of a welder in repair of equipment. Performs other related duties.

1194 Servicer

Drives a truck which carries various fuels, oils, greases and filters. Must have knowledge of and is responsible for the correct oiling and greasing and changing of filters on equipment according to manufacturers' specifications. Uses compressed air grease guns, wrenches, and other tools. May make adjustments to clutches, brakes and other mechanical items. Keeps record of service for preventive maintenance records. May have laborer assisting him. May require CDL if driving truck on public highways. Performs other related duties.

1196 Painter, Structures

Paints and stains structural steel and concrete surfaces of bridges, retaining walls or other structures. Directs cleaning and abrasive blasting of surfaces prior to painting or staining. Performs other related duties.

1202 Piledriver

Sets in place, aligns, plumbs, and directs driving of timber, concrete, steel, pipe and any other type of piling. Sets, drives, and pulls steel, concrete and other types of sheet piling. Rigs pile and leads and bracing. Signals operator. Splices piles before and after driving. Directs pile cutoffs. May direct jetting or drilling equipment in connection with installing piles to grade. Performs other related duties.

1205 Pipelayer

Installs concrete, clay, steel, ductile iron, plastic, corrugated pipe and any other type of pipe for storm drainage, water lines, gas lines and sanitary sewer lines. Lays underground communication and electrical ducts. May install and set electrical ground boxes, hand holes, manholes, inlets and other structures. Caulks joints, makes threaded and flanged connections. Installs valves and other accessories. Performs other related duties.

1214 Blaster

Loads and fires blast holes for breaking up rock, concrete and other hard materials. Stores and handles explosives and detonating devices. Attaches fuses and electric wires. May use prima-cord or delay caps. Performs other related duties.

1300 Asphalt Distributor Operator

Drives distributor truck, sets spray bars and operates valves and lever to control distribution of bituminous material for highway surfacing. May oil, grease or otherwise service and make adjustments to equipment as needed. Performs other related duties.

1303 Asphalt Paving Machine Operator

Operates paving machine that spreads and levels asphaltic concrete on highway subgrade. Controls movement of machine, raises and lowers screed, regulates width of screed. May oil, grease, service and make adjustments to equipment as needed. Performs other related duties.

1305 Broom or Sweeper Operator

Operates a self-propelled machine to sweep and clean roadway surfaces. May oil, grease, service and make adjustments to equipment as needed. Performs other related duties.

1306 Crawler Tractor Operator

Operates a crawler tractor with a bulldozer mounted in front of chassis to level, distribute and push earth or other material. May operate a ripper attachment to break up rock or other hard material. May use a push block on front of tractor to push load scrapers. May oil, grease or otherwise service and make minor repairs to equipment as needed. Performs other related duties.

1315 Concrete Paving Curing, Float, Texturing Machine Operator

Operates self-propelled machine(s) which may or may not travel on concrete paving forms and operates pump on the machine which sprays curing compound on freshly poured concrete or tube floats concrete or textures fresh concrete. May oil, grease, or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1318 Concrete Pavement Finishing Machine Operator

Operates self-propelled machine(s) which may or may not travel on paving forms, spreading, and leveling fresh concrete to grade by use of augers and screeds. May oil, grease, to otherwise services and make adjustments to equipment as necessary. Performs other related duties.

1329 Joint Sealer

Cleans and seals joints requiring a hot or cold sealing compound in concrete paving, sidewalks, driveway and approach slabs. May oil, grease or make necessary repairs and adjustments. Performs other related duties.

1333 Concrete Saw Operator

Operates a water-cooled power saw with either diamond or an abrasive blade to saw expansion and contraction joints in concrete paving. May also be used to saw asphaltic pavements. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1339 Subgrade Trimmer

Operates a machine that controls subgrade elevation. Machine may run on paving forms or be controlled electronically. Machine may be automated to control depths of subgrade or operator may mechanically operate to eject excess materials from subgrade with augers or blades. May oil,

grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1341 Small Slipform Machine Operator

Operates a self-propelled machine which may either lay curb and gutter, median safety barrier or bridge rail. Manipulates hand or foot levers to control movements of the machine. Raises or lowers screed, regulates width of screed. May oil, grease, or otherwise service and make necessary adjustment to equipment as needed. Performs other related duties.

1342 Crane Operator, Lattice Boom 80 tons or less

A worker who operates a lattice boom type crane to hoist and move materials, raise and lower heavy weights and perform other related operation. May be crawler type or rubber-tired. May include placement of rock riprap, clamshell, dragline, pipe and pile driving operations. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1343 Crane Operator, Lattice Boom Over 80 tons

A worker who operates a lattice boom type crane to hoist and move materials, raise and lower heavy weights and perform other related operation. May be crawler type or rubber-tired. May include placement of rock riprap, clamshell, dragline, pipe and pile driving operations. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1344 Crane Operator, Hydraulic 80 tons or less

A worker who operates a hydraulic telescoping boom type crane to hoist and move materials, raise, and lower heavy weights and perform other related operations. May be crawler type or rubber-tired. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1345 Crane Operator, Hydraulic Over 80 tons

A worker who operates a hydraulic telescoping boom type crane to hoist and move materials, raise and lower heavy weights and perform other related operations. May be crawler type or rubber-tired. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1346 Loader/Backhoe Operator

Operates a rubber-tired machine mounted with a backhoe bucket on one end and a loader bucket on the other end. Used for excavating ditches and structures, laying pipe and precast concrete structures, carrying material in the loader bucket, and general excavation and backfill. May also be equipped with hydraulic attachments. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1347 Excavator Operator, 50,000 lbs or less

Operates a crawler or rubber-tired machine mounted with an excavator bucket. Used for excavating ditches and structures, laying pipe and precast concrete structures, loading trucks, and placing rock riprap. May also be equipped with various hydraulic attachments. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1348 Excavator Operator, Over 50,000 lbs

Operates a crawler or rubber-tired machine mounted with an excavator bucket. Used for excavating ditches, structures, and mass excavations, laying pipe and precast concrete structures, loading trucks and placing rock riprap. May also be equipped with various hydraulic attachments. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1351 Crusher or Screen Plant Operator

Operates a crusher or screening plant through which rock is run to break it into crushed stone for construction or to control flow of materials through screening plant to screen out materials not needed. May include crushing and screening of broken concrete and asphalt. May make minor repairs and may service and make necessary adjustments to equipment as needed. Performs other related duties.

1360 Foundation Drill Operator, Crawler Mounted

Operates a hole drilling machine that is crawler mounted. May include geotechnical operations such as soil nails, rock nails, tiebacks, anchors or jet grouting. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1363 Foundation Drill Operator, Truck Mounted

Operates a hole drilling machine that is mounted on the rear of a rubber-tired vehicle or truck. May include soil nails, rock nails, tiebacks, anchors, or jet grouting. Drives truck from location to location or may have laborer who drives truck. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1369 Front End Loader Operator, 3 CY or Less

Operates a rubber-tired, skid steer, or crawler type tractor with an attached scoop type bucket on front end. Machine is used to load materials from stockpiles, excavation, charging batch plants, loading, and unloading trucks. May be used with attachments in lieu of the bucket. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1372 Front End Loader Operator, Over 3 CY

Operates a rubber-tired, skid steer, or crawler type tractor with an attached scoop type bucket on front end. Machine is used to load materials from stockpiles, excavation, charging batch plants, loading, and unloading trucks. May be used with attachments in lieu of the bucket. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1380 Milling Machine Operator

Operates power-driven milling machine that planes material of the roadbed and discharges the material into a hauling unit or a window. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1384 Reclaimer/Pulverizer Operator

Operates a machine that pulverizes material of the roadbed and may mechanically mix it with asphalt, cement, or other stabilizing materials. May oil, grease, or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1390 Motor Grader Operator, Fine Grade

Operates motor grader. Performs many of the same duties of Motor Grader, Rough, but in addition performs finish grade work to bluetops or other close specification control. This work is subject to strict inspection and must conform closely to specifications. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1393 Motor Grader Operator, Rough

Operates Motor Grader. Equipment is used to grade excavation and embankment and to lay asphalt, base and other materials. May blade haul roads and do other general motor grader work, but does not perform finish grade work to close specification tolerances. This operator may be a learner in the first phase of learning the skills of motor grader work. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1396 Pavement Marking Machine Operator

Operates a machine used in laying paint stripes or markers on all types of paving. Loads machine with appropriate materials and may walk or ride on machine. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1399 Concrete/Gunite Pump Operator

Operates a pumping machine that pumps fresh concrete, gunite or grout. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1402 Roller Operator, Asphalt

Operates a self-propelled machine with either steel wheels or pneumatic tires which is used to compact and smooth all bituminous materials. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1405 Roller Operator, Other

Operates a self-propelled machine with either steel wheels or pneumatic tires which is used to compact earth fills, subgrade, flexible base and all other types of materials except bituminous. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1411 Scraper Operator

Operates a self-contained wheeled tractor scraper both self-loading or assisted by crawler tractors or other scrapers. Used to excavate and transport earth or other materials. May oil, grease or equipment as needed. Performs other related duties.

1413 *Off Road Hauler*

Drives an off-road hauler loaded by another machine, mounted on wheels, that transports earth or other materials. May also operate an off-road water tanker. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1417 *Self-Propelled Hammer Operator*

Operates a self-propelled machine which has an attachment used for breaking concrete, asphalt or other martial. Machine may be air, hydraulic or cable operated. Machine is usually mounted on rubber tires but may be truck mounted. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1428 *Agricultural Tractor Operator*

Operates a gasoline or diesel-powered agricultural tractor that tows compaction rollers, disc plow, water tanks, scrapers, and other similar operations. May use other miscellaneous attachments. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1437 *Trenching Machine Operator, Light*

Performs duties similar to those performed by operator of a Trenching Machine Heavy, except that machine excavates a trench less than 5 feet in depth and may be rubber-tired. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1440 *Trenching Machine Operator, Heavy*

Operates a machine that digs trenches for sewer, underground cable, underground pipes for electrical communication, water, drainage, oil and gas and other pipelines. The heavy trenching machine excavates trenches more than 5 feet in depth and is mounted on crawler treads with the digging equipment usually consisting of an endless chain or wheel of edged buckets or other cutting devices that excavate and discharge the material at the side of the trench. May also be used for mass excavations. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1441 *Tunneling Machine Operator, Heavy*

Operates a machine which creates a tunnel through dirt or rock for the purpose of installing subterranean facilities such as utilities, including sanitary sewer and water mains, storm sewers, pedestrian tunnels, vehicular tunnels, and subways. The tunneling machine excavates tunnels greater than 2,500 feet in continuous length. Sets up machine to line and grade. Checks grade during tunneling operation. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1442 *Tunneling Machine Operator, Light*

Operates a machine which creates a tunnel through dirt or rock for the purpose of installing subterranean facilities such as utilities, including sanitary sewer and water mains, storm sewers, pedestrian tunnels, vehicular tunnels, and subways. The tunneling machine excavates tunnels less than 2,500 feet in continuous length. Sets up machine to line and grade. Checks grade during

tunneling operation. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1443 Percussion or Rotary Drill Operator

Operates rock drilling equipment that may be used in advance of blasting operations. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1444 Boring Machine Operator

Operates boring machine that drills holes through dirt or rock in a generally horizontal plane to provide an excavation for an encasement or carrier pipe in a wet or dry condition. May operate a jacking machine to install conduit in a generally horizontal plane. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1445 Directional Drilling Operator

Operates a directional drilling machine that drills holes through dirt or rock with a directional locating beam and directional steering capabilities. Machine may utilize various steering head tools to control the direction of the drill. Controls speed of drilling, drilling fluid characteristics and pullback of pipe being installed. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1446 Directional Drilling Locator

Assist directional drilling operator in machine setup. Operates locating equipment under direction of the operator. May oil, grease or otherwise service or make necessary adjustments to equipment as needed. Performs other related duties.

1500 Reinforcing Steel Worker

Works from plans to lay out and install reinforcing steel within forms or in mats of concrete paving. May direct unloading of material. Determines rigging required to complete work. Gives direction to common or utility laborers. May install miscellaneous materials integral to concrete structures or paving. May work with power tools. Performs other related duties.

1509 Structural Steel Worker

Erects and places fabricated structural steel members, such as girders, plates, diaphragms, lateral bracing, and unites them permanently to form a completed structural steel unit. Fastens steel members together by welding or bolting. May include dismantling and erecting large units of equipment. Performs other related duties.

1513 Sign Erector

Sets forms, reinforcing steel, anchor bolts and pours concrete for sign foundations. Fabricates and erects pipe and angle frameworks by bolting, welding, or other means prior to installation of signs that are normally prefabricated. Works from alignment of signs. May direct hoisting of signs into place. Fastens signs to framework by bolting and other means. Locates and sets lighting brackets. May perform other work associated with signing projects. Performs other related duties.

1515 Spreader Box Operator

Operates spreader box by adjusting hopper and strike-off blade so that gravel, stone, or other material may be spread to a specific depth on road surface during seal coat and surface treatment operations. May oil, grease or otherwise service and make necessary adjustments to equipment as needed. Performs other related duties.

1520 Work Zone Barricade Servicer

Fabricates, erects, and maintains temporary traffic control devices, including arrow boards, signs, barricades, channelizing devices, barrels and all message boards. May operate a truck during traffic control operations.

1600 Truck Driver, Single Axle

Drives a light capacity truck for transporting loads of construction material. The truck is of single rear axle type, may have various kinds of beds attached such as dump, flat bed, tank, etc. May require CDL license for driving on highway. May service and make necessary adjustments for proper operation of equipment. Performs other related duties.

1606 Truck Driver, Single or Tandem Axle Dump Truck

Drives a heavy-duty diesel-powered dump truck used in hauling materials. Hauls dirt, rock, aggregates, non-agitated concrete, or other material. May also be used for operation of water trucks. May require CDL license for driving on highway. May service and make necessary adjustments for proper operation of equipment. Performs other related duties.

1607 Truck Driver, Tandem Axle Tractor with Semi Trailer

Drives a diesel-powered tractor pulling a semi-trailer hauling materials. Hauls dirt, rock, aggregates, or other material. May require CDL license for driving on highway. May service and make necessary adjustments for proper operation of equipment. Performs other related duties.

1609 Truck Driver Lowboy—Float

Drives a heavy-duty diesel-powered truck to which is attached a trailer upon which heavy equipment is hauled. Driver is often required to operate heavy equipment to load or unload the lowboy. May require CDL license for on-highway use. May service and make necessary adjustments for proper operation of equipment. Performs other related duties.

1612 Truck Driver Transit—Mix

Drives a gasoline or diesel truck upon which is mounted a concrete mixer. Operates concrete mixer and dumps concrete on the grade, into forms or into concrete pumps or buckets. Cleans mixer drum. May require CDL license for on-highway use. May service and make necessary adjustments for proper operation of equipment. Performs other related duties.

1615 Boom Truck Operator

Drives a gasoline or diesel single or tandem axle truck equipped with a hydraulic telescopic or articulated boom for picking up various objects. Operates boom in accordance with signals from ground. May require CDL license for highway use. May service and make necessary adjustments for proper operation of equipment. This classification used only when boom is operated; otherwise,

operator should be classified under appropriate truck driver classification. Performs other related duties.

1705 Structural Steel Welder

Certified by the American Welding Society to perform structural steel welding. Operates welding equipment. Welds structural steel girders and diaphragms. May weld permanent metal deck forms. Performs other related duties.

1706 Welder

Operates welding equipment. Cuts, lays out, fits and welds metals or alloyed metal parts to fabricate or repair equipment. Welds the joints between lengths of pipe for oil, gas or other types of pipelines. Welds structural steel girders and diaphragms. May assist in welding of permanent metal deck forms. Performs other related duties.

1708 Slurry Seal or Micro-Surfacing Machine Operator

Operates slurry seal or microsurfacing equipment that spreads and levels slurry or microsurfacing materials on highways. Controls movement of machine, raises and lowers screed, regulates width of screed. May oil, grease, service and make adjustments to equipment as needed. Performs other related duties.