

## WORK CLASSIFICATIONS

(Revised 9/20/16)

### **B. CONCRETE PAVING (Section 602 Standard Specifications)**

This work shall consist of constructing a jointed portland cement concrete pavement, base course or shoulder, with or without reinforcement, as specified; large, road work.

Equipment: Major paving equipment (slipform).

### **Ba. CONCRETE PAVEMENT PATCHING AND WIDENING (Section 603 Standard Specifications)**

This work shall consist of repairing portions of a concrete pavement with portland cement concrete with or without reinforcement, as required, and with the type of joint specified. This would include miscellaneous concrete pavement, widening, turn lanes, and pavement patching and repair.

Equipment: Compaction equipment, drilling machine (dowel bars), forms, concrete saws, self-powered screed.

### **Ca. CHIP SEALS (Section 508 Standard Specifications)**

This work shall consist of surface preparation and application of single chip seal, double chip seal or shoulder chip seal.

Equipment: Chip spreader, pressure distributor, self-propelled pneumatic-tired rollers, pilot car.

### **Cb. HOT MIX ASPHALT/BITUMINOUS PAVING (Sections 501-504, 805, 806,814 Standard Specifications)**

This work shall consist of preparing the existing pavement and constructing HMA/Bituminous pavements, shoulders, and approaches.

Equipment: Pressure distributor, pavers, compaction equipment (pneumatic and vibratory rollers), trucks

### **Ea. GRADING, DRAINAGE STRUCTURES AND AGGREGATE CONSTRUCTION (Sections 203-209, 301-303, 306,307, 401,403, 404 Standard Specifications)**

This work shall consist of the construction of roadways including constructing earth grades by excavating soil or rock and by placing embankments and/or fills, salvaging and stockpiling of selected materials, disposing of surplus or unsuitable material, trimming earth grade, preparing roadway foundations, moving fences, removing and salvaging topsoil, soil erosion and sedimentation control, installation of culverts, end sections, underdrains, drainage marker posts, construction of drainage structures, and other incidental construction.

Equipment: Backhoe, compaction equipment, crane, dozer, excavator, grader, loader, trucks or scrapers.

### **Fa. BRIDGES AND SPECIAL STRUCTURES (Sections 701,706, 709,717,813 Standard Specifications)**

This work shall consist of constructing masonry, fabricated steel, prestressed concrete beam or timber bridges, large culverts and grade separations, special structures and other incidental construction.

Equipment: Backhoe, compaction equipment, compressor, crane, dozer, excavator, forms, loader, pile and pneumatic hammer, screed or concrete paver.

### **Fb. STRUCTURAL STEEL (Sections 707, 708 Standard Specifications)**

This work shall consist of erecting structural steel, prestressed concrete beams, placing diaphragms, and placing reinforcing steel on bridges and grade separations and other incidental structures.

Equipment: Backhoe, compressor, crane, excavator, welding equipment.

### **Fd. PUMP STATIONS (Section 405 Standard Specifications)**

This work shall consist of constructing pump stations. This will also include the furnishing and installation of pumping equipment, related electrical, mechanical, drainage or housing systems, subsystems, components, appurtenances and facilities required to complete installation. Construction of station includes excavation, piling, concrete work, backfilling, sewers, drainage structures, and waterproofing.

Equipment: Backhoe, compaction equipment, compressor, crane, dozer, excavator, forms, loader.

### **G. BUILDING MOVING AND DEMOLITION**

This work shall consist of building moving, demolition, and other incidental construction.

Equipment: Backhoe, crane, dozer, excavator, loader, lowboy, trucks.

**H. LANDSCAPING (Section 815 Standard Specifications)**

This work shall consist of excavating planting areas for trees, shrubs, evergreens, and ground cover plants, disposing of the excavated material, furnishing and planting trees, shrubs, and other plants of the type and size indicated on the plans or in the proposal, backfilling the planting holes with prepared soil, watering and cultivating, and all other materials and operations required to complete the work in accordance with the specifications.

Equipment: Auger, backhoe, disc, dozer, drag, excavator, tree spade, water tank or truck.

**I. SEEDING AND SODDING/TURF ESTABLISHMENT( Sections 816, 818 Standard Specifications)**

This work shall consist of preparing the foundation, limited placement of topsoil, fertilizing areas to be seeded, seeding or sodding, watering as required.

Equipment: Disc, drag, hydroseeder, mulcher, tractor, truck.

**ITS. Intelligent Transportation System (Master & Electrical License required)**

Install Intelligent Transportation Systems (ITS) including, but not limited to: Surveillance, Vehicle Detection, and Traveler Information Systems; Communications and Network Infrastructure; Video Compression Equipment; Road Weather Information Systems (RWIS); Power Systems; and Auxiliary ITS Devices – PLEASE REQUEST ITS REQUIREMENTS BEFORE REQUESTING THIS CLASSIFICATION.

**J. MISCELLANEOUS CONCRETE ITEMS (Sections 801-804 Standard Specifications)**

This work shall consist of constructing concrete curb, curb and gutter, sidewalk, barrier wall, driveways, sidewalk ramps, and other incidental construction.

Equipment: Backhoe, compaction equipment, excavator, forms, loader, paver (C&G slipform).

**K. SEWERS AND WATERMAINS (Section 402 Standard Specifications)**

This work shall consist of installing lines of sewer pipe, of the required class and the specified inside diameter and shall include excavation, backfilling, sewer taps, bulkheads, trench undercut and backfill, dewatering system and city water mains.

Equipment: Backhoe, compaction equipment, excavator, loader, trench box.

**Ka. TUNNELING AND JACKING (Section 401.03(I) Standard Specifications)**

This work shall consist of jacking into place culverts, steel casing, or conduit without disturbing the roadbed or railroad above the culvert/casing/conduit.

Equipment: Cranes, excavator, loader, pipe driving equipment, tunneling/jacking machines.

**L. ELECTRICAL (Sections 819, 820 Standard Specifications)**

This work shall consist of furnishing all materials and perform all work necessary to provide complete and operating traffic and pedestrian signals, span wires, strain poles, pedestals, illuminated case signs, traffic loops, digital loop detectors/cabinets, and electrical and lighting components. This includes the relocation, removal, salvage or disposal of all above items. Unless otherwise specified, excavation, granular material, backfill, disposal of waste excavated material, together with (in kind) replacement associated hardware, and No. 8 pole wire extending from the fusing at the base of the pole to the luminaire will be included. Two wires shall be extended for each luminaire. Requires a licensed master electrician and a company electrical license.

**N2. CLEARING (Section 202 Standard Specifications)**

This work shall consist of removing trees, brush and other debris.

Equipment: Dozer, loader.

**N3. PAVEMENT MARKING (Section 811 Standard Specifications)**

This work shall consist of non-production striping, special markings, and production hot or cold applied pavement marking.

Equipment: Pavement marking machine/truck, supply trucks, cones, hand-held marking machine.

**N4. BRIDGE PAINTING (Sections 715, 716 Standard Specifications)**

This work shall consist of cleaning and coating existing steel structures.

Equipment: Air compressor, dust collectors, hygiene facilities (showers), sand blasting equipment, scaffolding, tarps, paint sprayer, boat.

**N5. RAILROAD TRACK CONSTRUCTION**

This work shall consist of installing new track for track crossings.

Equipment: Ballast regulator, ballast tamper, dozer, crane, loader, spike pullers, automatic spiker.

**N6. PERMANENT SIGNS (Section 810 Standard Specifications)**

This work shall consist of installing cantilever/truss overhead signs, installing ground mounted roadside signs and all incidental construction.

Equipment: Cranes, backhoes, loaders, cherry pickers, augers, posthole digger, post driver.

**N7. WATERPROOFING (Section 710 Standard Specifications)**

This work shall consist of installing membrane waterproofing and protective covers for deck structures and other related operations.

Equipment: Air compressor, asphalt heater/spreader, shotcrete applicator.

**BRIDGE**

**N9-1A. BRIDGE DECK REPAIR (Fa) (Sections 713, 712, 713, 717 Standard Specifications)**

This work shall consist of removing concrete and patching or resurfacing with concrete patching or overlay mixtures, removing, replacing and retrofitting expansion joints, scarifying, hand chipping shallow and deep, and other incidental construction.

Equipment: Scarifier, concrete saws, blast cleaning equipment, machine-mounted hydraulic or pneumatic equipment, manual pneumatic hammer, screed.

**N9-1B. BRIDGE RAILING REPLACEMENT (Fa) (Section 711 Standard Specifications)**

This work shall consist of structural and pipe railing replacement.

**N9-1C. CONCRETE STRUCTURE REPAIR (Fa) (Sections 712.03, 713 Standard Specifications)**

This work shall consist of repairing beams, footings, piers, retaining walls, hand chipping other than deck, blast cleaning steel, and all work specified for preparing areas for patching.

**N9-1D. CONCRETE BRIDGE RAILING (Fa) (Section 711 Standard Specifications)**

This work shall consist of constructing parapet and bridge barrier railings.

**N9-1E. STRUCTURAL CRACK REPAIR (Sections 702, 703 Standard Specifications)**

This work shall consist of repairing cracks including flushing with water, injecting grouts, resins, and sealers.

**N9-1F. HYDRODEMOLITION (Section 712.03 Standard Specifications)**

This work shall consist of removing deck concrete and patches by means of high pressure water jets, and the removal of material inaccessible to the hydrodemolisher by hand-held water blasting equipment.

**N9-1G. BRIDGE PAINTING/LIMITED (Sections 715, 716 Standard Specifications)**

This work shall consist of cleaning and coating existing steel structures. Requires a SSPC QP7 certification and prime or subcontract is limited to \$200,000.

Equipment: Air compressor, dust collectors, hygiene facilities (showers), sand blasting equipment, scaffolding, tarps, paint sprayer, boat.

**ROADWAY (GRADE)**

**N9-2B. EDGE DRAIN (Ea)**

**N9-2C. EROSION CONTROL STRUCTURES (Ea) (Section 208.01 Standard Specifications)**

**N9-2D. CRUSHING AND SHAPING (Section 305 Standard Specifications)**

This work shall consist of trenching, scarifying and crushing existing hot mix asphalt/bituminous pavement, loading, hauling, placing (adding new material if required), shaping and compacting the crushed materials.

Equipment: Cold mill or reclaimer, rollers (pneumatic-tired and vibratory), crushing machine. The crushing machine shall be a self-propelled rotary reduction machine capable of crushing and mixing the pavement and underlying aggregate base to the proper size and depth.

**PAVEMENTS**

**N9-3A. COLD MILLING (Section 822 Standard Specifications)**

This work shall consist of removing hot mix asphalt/bituminous pavement to the depth, width, grade and cross section as shown on the plans. This may include ground or cut shoulder corrugations (rumble strips).

Equipment: Cold mill, trucks.

**N9-3B. RUBBLIZING CONCRETE PAVEMENT (Section 304 Standard Specifications)**

This work shall consist of shattering a reinforced or non-reinforced portland cement concrete pavement to construct a rubblized base, and disposal of all excess and unsuitable material.

Equipment: Self-contained, self-propelled pavement breaking machine that uses a resonant frequency or a self-contained, self-propelled pavement breaking machine with multiple impact hammers directly adjacent to each other, and a water system to suppress the dust generated from the pavement shattering operation.

**N9-3C. CONCRETE SAWING (B, Ba) (Section 603.03(D) Standard Specifications)**

**N9-3D. GRINDING AND GROOVING (Section 603.03(C) Standard Specifications)**

This work shall consist of diamond grinding concrete pavement. The purpose is to improve friction levels and ride quality. This may include ground or cut shoulder corrugations (rumble strips).

Equipment: A power driven, self-propelled machine designed for grinding and texturing concrete pavement with diamond blades. The machine shall be capable of grinding the surface without causing damage to the underlying surface of the pavement. The machine shall have a positive means of extracting the slurry material from the pavement and for preventing dust from escaping.

**N9-3E. OVERBAND CRACK FILL (N9-3I) (Section 505 Standard Specifications)**

This work shall consist of cleaning cracks in hot mix asphalt/bituminous pavements and placing the specified materials into and over the crack to eliminate water infiltration. Usually in combination with microsurfacing or chip seal work.

**N9-3F. JOINT OR CRACK FILL (Section 603.03(D) (E) Standard Specifications)**

This work shall consist of sawing, cleaning, and sealing cracks in pavements.

**N9-3G. JOINT REPAIR**

This work shall consist of Detail 7 and Detail 8 joint repairs in concrete pavement or hot mix asphalt/bituminous overlaid pavement.

**N9-3H. SLURRY SEAL (N9-3I) (Section 506 Standard Specifications)**

This work shall consist of surface preparation and application of a properly proportioned slurry seal mixture.

Equipment: A continuous-flow mixing slurry seal machine with automated controls, mechanical type single squeegee distributor (attached to the mixing machine), spreader box, hand squeegees, power broom, air compressor, water flushing equipment.

**N9-3I. MICROSURFACING (Section 507 Standard Specifications)**

This work shall consist of surface preparation and application of a properly proportioned microsurfacing mixture. (This will include overband crack fill as it preps the surface for microsurfacing.)

Equipment: A mixing machine equipped with a positive connection conveyor belt aggregate delivery system and an interconnected positive displacement, water-jacketed gear pump to accurately proportion aggregate and asphalt emulsion, spreader box, rut box, hand squeegees, power broom, air compressor, water flushing equipment. If prequalified in microsurfacing, can do slurry seal but not vice versa.

## **DRAINAGE**

### **N9-4A. SEWER CLEANOUT (Section 402.03 (I)(J) Standard Specifications)**

This work shall consist of cleaning sewers and culverts, and removing sediment from drainage structures.

Equipment: Combination 10 cyd sewer/catch basin cleaner.

### **N9-4B. SEWER INSPECTION (Section 402.03(K) Standard Specifications)**

This work shall consist of inspecting sewers and culverts by remotely operated television.

Equipment: Television inspection equipment.

## **FOUNDATION**

### **N9-5A. AUGURED PILING (Fa)**

Equipment: Pile hammers, drill rigs for auguring.

### **N9-5B. CAISSON DRILLING**

### **N9-5C. PILE DRIVING (Fa) Section 705 Standard Specifications)**

Equipment: Pile hammers, crane.

### **N9-5D. SHEET PILING (Fa) (Section 704 Standard Specifications)**

This work shall consist of furnishing and driving permanent steel sheet piling and furnishing, installing, maintaining, and removing temporary steel sheet piling.

Equipment: Pile and/or drop hammers, crane.

## **GENERAL**

### **N9-6C. PLACING RESTEEL (B, Ba, Fa)**

### **N9-6E. RAIL SALVAGE**

### **N9-6F. RAILROAD SIGNALS**

### **N9-6I. RAISED PAVEMENT MARKERS (Section 811.03(G) Standard Specifications)**

Equipment: Plunge saw

### **N9-6K. ATTENUATORS**

This work consists of installing an energy absorption unit to be placed in front of a traffic hazard to reduce the impact energy of a moving vehicle. (Contact Attenuator Man in Traffic and Safety)

### **N9-6L. GUARDRAIL (Section 807 Standard Specifications)**

This work consists of constructing, reconstructing and erecting guardrail, guard posts, guide posts, guardrail terminals, guardrail anchorages and mailbox posts, including excavation, backfill and disposal of surplus material.

Equipment: Auger, post driver, backhoe, dozer.

### **N9-6M. FENCES (Section 808 Standard Specifications)**

This work consists of furnishing and erecting or moving existing, woven wire fence, temporary fence, protective fence, chain link fence, high-tensile wire fence, and pedestrian fencing of structures.

Equipment: Auger, post driver.

### **N9-6N. PAVING BRICK**

The category shown in parenthesis following some of the N9 categories are considered to already include that N9 category. If you are prequalified in the category shown in parenthesis, please do not request that N9 category.