

Colonial Paving & Concrete Co. – Specification Booklet

CRACK SEALING – SPECIFICATION 1

Purpose: To Prevent debris and water intrusion into and beneath the pavement through straight line cracks or opened pavement joints. Said cracks for sealing shall be limited to ¼” to 1” in width only. Pavement repair areas are not to be crack sealed.

Description: Clean out cracks to at least 1” depth where feasible. Apply sealant by means of a crack seal distributor which forces the material into the crack and also spreads the material to a width of approx. 2 ½” across the top of the crack leaving a very slight area of elevated materials.

Material Requirements:

The hot pour crack sealer will meet the following specifications: AASHITO-M173, ASTM D1190, D3405

Weather Requirements:

Pavement must be thoroughly dry at the time of application.

Equipment: A flat bed truck with a mounted or pulled heating pot, materials spreader, forced air blower(s), stiff bristle broom(s), hand tools appropriate to remove vegetation and debris from cracks.

Special Notes: Asphalt pavement is susceptible to expansion and contraction which leads to some cracking and may result in some sealed cracks reopening (approximately 20%). Crack Sealing is considered a yearly maintenance requirement.

Generally, crack sealing can be performed which vehicles remain in the lot. However, the amount and location of cracking may require the lot to be vacated. Vehicles can return to the lot as soon as the sealant is set.

ASPHALT REPAIR – SPECIFICATION 2

Purpose: To repair failed pavement; longitudinal and transverse cracking. Normally asphalt repair requires the removal of all of the asphalt down to the sub-base (stone or dirt beneath the asphalt). The depth of repair (removal) will be stated within the contract and may vary from 1” to 8” or more.

Colonial Paving & Concrete Co. – Specification Booklet

Description: Mark with paint all areas of repair. Cut the edges of the repair areas so as to produce vertical edges. Excavate the areas utilizing specifically designed equipment for such operations. Such equipment may vary in kind and quantity depending on the scale of work. All debris will be removed from the site. The sub-base will be re-compacted to achieve required density. If a problem is found concerning the condition(s) of the sub-base, it will then be presented to the contracted party for their determination as to remedy. The vertical edges of the repairs will receive an application of Tack Coat, a CRS-2 emulsion. If the depth of the repair area is greater than three inches the asphalt will be placed in least two lifts (layers). The exception to this would pertain to very small repair areas where a roller cannot operate. The asphalt may be applied in a four inch lift and compacted utilizing a vibrating sled. The finished surface of the repair area shall be of a uniform texture and closely match the adjacent surface elevations.

Material Requirements:
State approved hot mixes

Weather Requirements:
Dry conditions (light rain acceptable prior to water accumulation) with minimum outside temperatures of 30 degrees and rising.

Equipment: For excavation: Jack hammer, asphalt saw, bobcat, backhoe, gradall, front end loader or milling machine. For installation: Paving machine, bobcat in lieu of paving machine for smaller repairs, roller (s).

Special Notes: The equipment is delivered to the site via either a trailer pulled by a dump truck or a tractor trailer rig. Such equipment may need to be parked on site or in an adjacent available street during operations. Some equipment may be delivered prior to commencement of operations and be parked on the premises and may remain there until the day following completion.

ASPHALT OVERLAY – SPECIFICATION 3

Purpose: Generally, the asphalt pavement surface of a residential or commercial property parking lot or street has a usable life of seventeen to twenty years, all dependent upon usage and maintenance. An asphalt overlay is a new layer of asphalt applied to a structurally sound (repaired as necessary) but worn and deteriorating surface. This application re-sets the pavement life. An overlay also levels depressions developed over time across the surface of the existing pavement. Edge milling should be

Colonial Paving & Concrete Co. – Specification Booklet

performed in conjunction with an overlay whenever the pavement is bordered by curb and gutter. This allows for the maintenance of a smooth transition between the curb and gutter and the new layer of asphalt. See EDGE MILLING SPECIFICATION. In the event the pavement is bordered by curb and gutter. This allows for the maintenance of a smooth transition between the curb and gutter and the new layer of asphalt. See EDGE MILLING SPECIFICATION. In the event the pavement is bordered by header curb milling may not be possible and the reveal of the header curb will be reduced by the thickness of the overlay. PROPER WATER DRAINAGE CANNOT BE GUARANTEED ON ANY PAVED AREA DETERMINED TO HAVE LESS THAN A 2% GRADE.

Description: Clean the surface of all debris and vegetation. Remove all existing speed bumps. Whenever necessary cut necessary heels at transitions where milling was unable to be performed. A tack coat (asphalt cement) will be applied. The surface course will be placed to a uniform texture and a specified average depth across the existing surface. The compacted depth of the overlay should be specifically compacted depth. The asphalt will be compacted to achieve a uniform and smooth surface.

Material: State approved hot surface mix asphalt

Weather Requirements:
Dry conditions (light rain acceptable prior to water accumulation).
Minimum outside temperatures of 40 degrees and rising.

Equipment: For cleaning; street sweeper, high powered blowers or tractor broom, all dependent on existing cleaning requirements. For paving: multiple dump trucks, paving machine(s) and roller(s).

Special Notes: The equipment is delivered to the site via either a trailer pulled by a dump truck or a tractor trailer rig. Such equipment may need to be parked on site or in an adjacent available street during operations. Some equipment may be delivered prior to commencement of operations and be parked on the premises and may remain there until the day following completion.

Utility access covers in the roadways or parking lots to be milled will be raised whenever possible. We contact the specific utility company who usually applies the riser. In some circumstances, we purchase and install required risers. However, clean out access points and other non-standard covers in the pavement that cannot be raised will be noted, milled around and left at the existing

Colonial Paving & Concrete Co. – Specification Booklet

elevation. Drain grates in the pavement are handled in the same manner. If the property owners desire these points of access raised it is their responsibility and at their cost.

All dumpsters, trash receptacles or items stored on the pavement will need to be relocated.

Hauling across the newly laid asphalt by other than cars and light trucks shall not be permitted for forty eight hours.

The streets and or parking lot(s) can be opened as soon as the pavement has cooled sufficiently to allow traffic. It is recommended to keep the street(s) or parking lot(s) closed for twenty four hours whenever possible.

FRENCH DRAIN – SPECIFICATION 4

Purpose: A French Drain is a hidden drainage system (without an open or on the surface grate) which draws and collects moisture from the surrounding area and carries it to a collection or disposal point. French Drains can be installed beneath the asphalt or beneath vegetated areas.

Description: Miss Utility is notified and will mark and notify the contractor as to the existence and location of any utilities. The area to be excavated is marked and cut in the same manner as an asphalt repair. The trench is typically excavated to a depth of two feet and a width of eighteen to twenty inches, dependent on the equipment utilized. A geotextile fabric sufficient to wrap the excavated area is laid in the trench. Several inches of stone are installed. A perforated flexible or rigid pipe is then placed the length of the trench and either vented or tied into an existing storm or drainage point. The trench is then filled with more stone. The geotextile fabric, which inhibits the intrusion of sediment which could eventually clog the system, is joined atop the stone over which another layer of stone is applied. The trenched area is then covered with a contract specified layer of asphalt or dirt if in a vegetated area.

Material: 4"-6" perforated flexible or rigid pipe, 1"-2" diameter stone, geotextile fabric meeting AASHTO M-288-90 Class B subsurface drainage specifications.

Weather Requirement: Not a factor

Colonial Paving & Concrete Co. – Specification Booklet

Equipment: Backhoe or dug by hand with shovels. Roller or vibrating sled for asphalt compaction.

Special Notes: A french drain can only be installed if there is either an available drainage system to which it can be joined or an area where it can be vented to the open and allows drainage away from the area.

EDGE MILLING – SPECIFICATION 5

Purpose: Edge Milling is performed when resurfacing roadways or streets in order to provide a smooth transition between the gutter pan of the curb and gutter, at transition areas such as handicap ramps and adjoining concrete surfaces and at entrances and exits to public streets or adjoining areas that are not going to be resurfaced.

Description: A milling machine specifically designed for this type of work is used. Milling machines vary in the width they can mill with one pass of the machine. The widths vary from twenty inches to six feet. The width of the milling is not critical unless the existing pavement has been overlaid prior without edge milling. Given this situation the edge should be milled a minimum of forty inches or more. Edge Milling is a beveled mill. In other words, the area flush with the gutter pan is milled down to the depth of the contracted resurfacing and the outer edge of the milled area is to no depth. Therefore, the area milled will transition from usually one and half inches at the curb and slope to no depth at the outer edge of the milled area. The milling machine conveys the milling into adjacent dump trucks as much as possible. A bobcat mill will usually mill the corners of the parking bays and any other areas found to be inaccessible to the milling machine. The area will then be cleaned of debris.

Material: None

Weather Requirements: Dry conditions generally but can be performed in light rain.

Equipment: Milling machine, dump trucks, bobcat milling heads, bobcat sweeping heads, street sweeper.

Special Notes: All vehicles need to remove from and remain off the area to be milled but may return as soon as the area has been cleaned.

All dumpsters, trash receptacles or items stored on the pavement will need to be relocated.

All transition areas are normally marked with paint.

Colonial Paving & Concrete Co. – Specification Booklet

Height restrictions may prohibit or restrict milling. Trees and shrubbery should be trimmed back as necessary to allow operations.

Milling atop underground parking structures can only be performed after structural weight bearing has been insured by the property owners and the actual substance (base) is known beneath the asphalt that is to be milled.

SPEED BUMPS – SPECIFICATION 6

Purpose: Speed Bumps are intended to slow the speed of vehicles in designated areas.

Description: The standard speed bump is twenty four inches in width and as long as necessary in length. The asphalt is rounded at the width with the center of the rounding not to exceed three inches in height. The area is cleaned and a tack coat is applied in order to aid adhesion of the new asphalt. The speed bump is usually painted solid yellow but can be painted per the desire of the customer, within reason.

Material: State approved hot mix asphalt

Weather Conditions: The pavement must be dry and above forty degrees in temperature.

Equipment: Dump truck, jack hammer, bobcat, vibrating sled or roller as required.

Special Notes: Speed Bumps are considered temporary and are not designed to withstand repetitive snow plowing. The specific location of all speed bumps should be designed in some fashion during periods of snow plowing in order to not be rammed etc., and therefore become damaged or removed.

CONCRETE REMOVAL & REPLACEMENT – SPECIFICATION 7

Purpose: Remove and replace damaged concrete or concrete areas considered trip hazards.

Description: The sections or areas to be replaced will be marked with paint. The edges of the sections adjoining these sections will be saw cut. There may be minor chipping at these joints which will be patched

Colonial Paving & Concrete Co. – Specification Booklet

at the time of the pour. The sections to be removed will be broken using a jack hammer or bobcat ram. The broken concrete will be removed from the premises. Forms will be set in preparation of installation. The concrete will be poured over the existing base material. The new concrete will be poured over the existing base material. The new concrete will be poured and finished. Appropriate areas will receive troweled control joints and expansion Material will be installed so as to match the existing configuration unless otherwise specified. A light broom finish will be applied. The elevations of the new concrete will match those of the adjoining concrete. After the forms are removed the edges will be BACKFILLED WITH EXISTING DIRT ON SITE AND SEEDED AS NECESSARY.

Material: The concrete will be state approved mix, 3,500 p.s.i., 6 ¼ bag, air entrained concrete unless otherwise specified.

Weather Conditions: Dry with nighttime temperatures above freezing.

Equipment: Jack hammer, bobcat, backhoe (if necessary), dump trucks as necessary.

Special Notes: Concrete requires twenty eight days to thoroughly cure.

Reinforcing wire mesh or steel will be installed as required but is NOT normally required for sidewalk.

In the event the area beneath the concrete has settled or been washed out, stone can be installed for rectification.

SALT OR ICE MELT SHOULD NOT BE APPLIED TO THE NEWLY Poured CONCRETE FOR A PERIOD OF TWO (2) YEARS. SUCH APPLICATION WILL VOID WARRANTY.

SEAL COATING – SPECIFICATION 8

Purpose: The sealer must be applied to sound pavements. It is not a method of resurfacing deteriorated pavement. The sealer is specifically formulated to shield against the drying action of the sun, resist damage from oil and gasoline leakage and prevent water penetration. The sealer can extend the life of the pavement IF applied to sound pavement on an as needed schedule. For optimal protection, it should be applied after the first year of pavement installation and every three to four years thereafter depending on wear.

Colonial Paving & Concrete Co. – Specification Booklet

- Description:** MasterSeal is a durable rubberized, asphalt resin pavement sealer designed to protect and beautify asphalt pavement. MasterSeal is an environmentally friendly product for asphalt pavements. The surface must be clean and free of all loose material and dirt. Treat all grease, oil and gasoline spots with an acrylic oil spot primer to aid adhesion and to help prevent bleeding of the oil through the sealer. Two coats of sealer are applied by pressurized spray. Adequate time will be allowed between coats so as to prevent disturbance of the first coat by the application truck and/or crew. The areas can be opened to traffic twenty-four hours after application.
- Material:** MasterSeal is a rubberized asphalt resin based coating fortified with special surfactants to promote superior adhesion and durability. Select aggregate is job mixed to produce a slip-resistant coating (four to five pounds per gallon of sealer). MasterSeal dries to a deep, rich black color.
- Weather Conditions:** Minimum temperature of fifty degrees over a continuous forty-eight hour period. Additionally, during the month of **October**, the seal coated areas will need to be exposed to direct sunlight throughout the daylight hours. Traditionally, seal coating is **ONLY** performed in the Washington Metropolitan Area from early April through the last week of October because of the temperature restrictions. The pavement must be dry and rain cannot be imminent.
- Equipment:** High powered blowers, stiff bristle brooms, seal cost tank truck.
- Special Notes:** It is the responsibility of the property owners/managers to clear the lot of all vehicles, trash receptacles and items stored on the pavement prior to the commencement of seal coating. They are also responsible for the arranging for tow truck(s) in the event vehicles require towing especially the morning of the seal coating.
- The sealed areas are to remain free of **ALL** vehicle traffic for a period of twenty-four hours, longer if areas remain damp after the initial twenty-four hours. Therefore, trash pick-up, mail delivery and general deliveries may need to be coordinated and or rescheduled.
- It is the responsibility of the property owners/managers to keep traffic off of the pavement for the period specified above.

Colonial Paving & Concrete Co. – Specification Booklet

If parking lines are to be re-painted it will be performed as soon as the sealer has adequately dried, usually late in the afternoon the day of the sealing. Some instances require the striping to be performed the following morning. Either the seal coating crew or the project manager will mark the curb with engineer crayon or draw a sketch of the parking lot line configuration. The owner/manager is responsible for providing a diagram of **ALL** stenciling/lettering.