

CHAPTER 904
Specifications for Driveways, Driveway Approaches,
Sidewalks Within the Right-of-Way and Curbs

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CROSS REFERENCES

- Subdivision design standards - see P. & Z. Ch. 1109
 Subdivision improvement requirements - see P. & Z. Ch. 1115

904.01 PURPOSE.

It is the purpose of this chapter to standardize the specifications for all driveways, driveway approaches, sidewalks within the right-of-way, and curbs within the City of Clayton, Ohio in order to promote and ensure uniform and structurally sound construction, repair and maintenance. (Ord. 0-08-12-18. Passed 9-20-12.)

904.02 APPLICABILITY.

Unless otherwise noted or exempted, the regulations of this chapter shall apply to all driveways, driveway approaches, sidewalks within the right-of-way, and curbs located within the City of Clayton, Ohio. (Ord. 0-08-12-18. Passed 9-20-12.)

904.03 GENERAL PROVISIONS.

(a) All work is by permit only. All permits shall be accompanied by a cash bond or security of no less than \$25,000 and payment of a \$25.00 fee except as otherwise noted herein. The bond or security shall cover all work performed hereunder. All driveways and driveway approaches constructed of concrete material shall be bonded and must pass inspection by the City Inspector. All driveways constructed of asphalt material or paver material shall not require a bond nor an inspection by the City Inspector. If the property owner performs all of the work, the bond requirement will be waived.

No person, contractor, firm or corporation shall construct, lay, or perform any repair or replacement work without first securing a permit. It shall be unlawful for any person, contractor, firm or corporation, directly or indirectly, to construct, lay, or perform any repair or replacement work without having obtained the permit required for such work.

(b) All new or replacement driveway approaches, sidewalks within the right-of-way, and curbs shall be constructed of Portland cement concrete material unless a material change is authorized in the permit. All new or replacement driveways shall be constructed of either Portland cement concrete material (as specified in Section 904.03(e)(1) below), or asphalt material or paver material unless a material change is authorized in the permit. In Zoning Districts A, R-1, and R-2 only, driveway aprons may be constructed of asphalt material as an alternate to the Portland cement material as outlined further in these specifications.

(c) All work shall be done in accordance with these Specifications and Standard Drawings of the City of Clayton. Work shall be complete in every respect including restoration of adjacent areas, clean-up of site, and removal of mud and debris from surrounding areas and haul routes.

(d) All expansion joints shall be vinyl.

(e) Driveways And Driveway Approaches:

- (1) Material shall be 4,000 PSI concrete at 28 days mix using 6 3/8 bags of cement with fiber per cubic yard of concrete mix or ODOT Class A concrete mix with fiber. All concrete material shall have 6.0% + 1% air entrainment and a maximum slump of four inches (4").
- (2) After the concrete has been finished, it shall immediately be cured meeting the specifications and requirements of the latest edition of the State of Ohio Department of Transportation "Construction and Material Specification Manual".
- (3) Residential drive aprons shall be six inches thick concrete placed on three inches of compacted ODOT Item #304 material.
- (4) Commercial property drive aprons shall be eight inches thick concrete placed on six inches of compacted ODOT Item #304 material.
- (5) Vinyl expansion joint material shall be used wherever new concrete abuts old concrete and as shown by the Clayton Standard Drawings.
- (6) If curb is to be replaced with the driveway, it shall conform to the original gutter grade. Permit holder is responsible for all asphalt work and to restore pavement at cut to the original and/or overlaid condition. Asphalt shall be saw cut straight a minimum of 12 inches from the front of the gutter and the existing pavement and shall be given a tack coat with a bituminous material before the placement of ODOT Type #404 asphalt. The gutter plate or apron shall not be covered with any asphalt material unless specifically directed by the City Inspector. Replacement curb and gutter at driveways shall be cut for full length removal unless otherwise marked by the City Inspector.
- (7) Driveway approaches shall be constructed using good construction practices. Driveway approaches shall have a center joint, wing joints, be edged, and have a rough finished texture on both commercial and residential applications. Edges shall be tooled and the concrete surface shall have a broom finish parallel to the street. All contraction joints shall have a minimum tooled or sawed depth of 1/4 the thickness of concrete placed, if approved by the City Inspector.

- (8) Drives shall not exceed 30 feet width measured at the back of sidewalk. A variance request to add up to ten feet of driveway apron width must have a detailed statement showing cause and be approved by the Board of Zoning Appeals.
 - (9) In areas zoned A, R-1, or R-2, asphalt may be replaced with Portland cement driveways and approaches. However, existing Portland cement driveways and approaches must be replaced with Portland cement. Asphalt approaches shall have a minimum aggregate base (#304) thickness of six inches and shall be constructed on a compacted subgrade approved by the City Inspector. A minimum of two inches of #404 surface asphalt shall be placed on the approved base. In the case of restoration of existing asphalt driveways in zoning districts where they are permitted, the contractor shall place a two-inch lift of #404 surface asphalt on an approved tacked asphalt base as approved by the City Inspector.
 - (10) The requirements for the completion of the permit are as outlined on the permit application, however in the interest of public safety and the overall good of the City and its residents the City Manager or his designee may require additional information before granting a permit.
- (f) Sidewalks In Right-Of-Way:
- (1) Sidewalk material shall be Portland cement concrete having strength of 4,000 PSI strength at 28 days, either 6 3/8 bag mix with fiber or ODOT Class A mix with fiber shall be used with 6.0% + 1% air entrainment and a maximum slump of four inches. All edges shall be tooled and a light broom finish shall be placed on the finished concrete. Immediately after finishing, the concrete shall be properly cured following the specifications and requirements of the latest edition of the State of Ohio Department of Transportation "Construction and Material Specifications Manual".
 - (2) Sidewalks shall be four inches thick concrete placed on three inches of compacted ODOT #304 aggregate base material, except at driveways where the sidewalk shall be six inches thick placed on three inches of compacted Item #304 aggregate base material. All sidewalks shall be five feet wide except on residential or local class streets where sidewalks four feet wide are acceptable. The minimum replacement area is one full block unless the City Inspector allows the sawing of a partial block. Surface patching in lieu of replacement is not allowed.
 - (3) Expansion joints shall be used wherever new material abuts old concrete and as shown in the Clayton Standard Drawings. Expansion joints shall be of vinyl material not fiberboard, and the void between the existing concrete surface and the expansion joint shall be filled with liquid asphalt.
 - (4) Sidewalks shall be constructed using good construction practices. Sidewalks shall be installed using forms and have contraction joints plated at a uniform rate of five feet. Edges shall be tooled and the concrete surface shall have a broom finish perpendicular to the street. Contraction joints shall be tooled or sawed a depth of 1/4 the thickness of concrete placed if approved by the City Inspector.
 - (4) On handicap ramps, a heavier broom finish shall be used perpendicular to the slope of the handicap ramp. The City Inspector shall review this finish prior to approval of the handicap ramp.

- (g) Curbs:
- (1) Curb and gutter material shall be 4,000 PSI concrete at 28 days. Either 6 3/8 bag mix with fiber or ODOT Class A mix with fiber shall be used with 6.0% + 1% air entrainment and a maximum slump of four inches (4").
 - (2) Curbs and gutters shall be constructed in accordance with the City of Clayton Specifications and Standard Drawings. Curbs shall have a front, back, and side forms contouring to the profile of the curb. Depressed curbs at driveways shall have a 1 1/2 inch lip. Curbs shall have contraction joints placed at five feet centers.
 - (3) Curbs at a sidewalk terminus shall be provided with a wheelchair ramp for handicapped persons in accordance with City of Clayton Specifications and Standard Drawings (see Sidewalks Within The Right-Of-Way, Subsection (f), (5) above for special surface roughness requirements).
 - (4) Asphalt street restoration work adjacent to new curb and gutter construction shall not cover the concrete gutter plate but leave it exposed unless otherwise directed by the City Inspector. Asphalt work shall be in accordance with these specifications concerning sawing, placement, tacking, and sealing. The contractor shall remove existing asphalt from adjacent gutter plate areas when directed by the City Inspector to facilitate drainage.
 - (5) The front face of all barrier type curbs shall be hand troweled and finished to a depth of eight inches below the top of the curb.
 - (6) Expansion joint material (vinyl type) shall be used wherever new concrete abuts old concrete and as shown by the Clayton Standard Drawings.

(h) Restoration: After the concrete has had time to cure and as soon as the forms have been removed, the excavated area behind the curb should be backfilled, tamped, then seeded or sodded. Any settlement in the backfill behind the curb within one year after placement shall be corrected by the contractor at no expense to the City of Clayton. All pavement restoration work must also be completed. All castings disturbed or damaged by the contractor shall be replaced and reset. This must be done before final acceptance and/or the release of the bond.

(i) Limitation: The construction season for rebuilding driveways, driveway approaches, sidewalks within the right-of-way, and curb work is from April 15 to October 31. The City Inspector may, but is not required to, grant permission to perform construction work hereunder for any time period before or after the construction season has begun or ended. Extra precaution and/or admixtures to the concrete may be advised by the City Inspector if the work is permitted. The City Inspector is hereby granted the right to extend the construction season in accordance with good engineering practices.
(Ord. 0-08-12-18. Passed 9-20-12.)

904.04 GENERAL SPECIFICATIONS.

- (a) Specifications for the construction and installation of the following:
- (1) Driveways and Driveway Approaches (Aprons);
 - (2) Sidewalks within the right-of-way, Curbs;
 - (3) Concrete Structures; and
 - (4) Related construction within the right-of-way and on City property.

The permit holder shall hold the City free and harmless from any and all loss, damage, expense, including, but not limited to, attorney's fees, court cost arising from, caused by or incident or related to injuries or damage to property (including but not limited to property of the City) or injury or death to any person or persons.

(b) Excavation shall consist of the excavation of all materials necessary in the construction of the listed projects, all to the lines and grades indicated on the plans or as directed by the City Inspector. All labor and equipment shall be furnished for the proper execution of said work. Excavation to be wasted shall be disposed of off site by the contractor as directed by the City Inspector.

(c) No concrete shall be poured for any sidewalk in the right-of-way, any curb, or any concrete driveway or concrete driveway approach until the City Inspector has been properly notified, has inspected the premises, and approved the proposed work in writing. The degree of sub-base compaction will be carefully reviewed by the City Inspector prior to approval of the work. The City requires a 24 hour notice. Concrete may not be poured on Sundays, legal holidays, or before or after regular work hours without specific approval of the City Inspector. After all work is complete for any sidewalk in the right-of-way, any curb, or any concrete driveway or concrete driveway approach, the contractor shall contact the City Inspector to make final inspection within twenty-four (24) hours. Work shall not be accepted by the City, until the finished work has been inspected and all completion or correction items have been finalized to the satisfaction of the City.

(d) Unless otherwise provided, contraction joints shall be placed in five feet intervals for curbs and sidewalks within the right-of-way. The City Inspector shall determine in advance of placement when these contraction joint intervals may be varied.

- (e) Vinyl expansion joints shall be placed parallel (or perpendicular) to all:
- (1) Retaining and building walls.
 - (2) Catch basins, gas and water boxes, manholes, and poles.
 - (3) Near trees and other plantings as may be determined by the City Inspector.
 - (4) Every 100 running feet or as determined by the City Inspector.
 - (5) When a curb, sidewalk, or step forms a continuous point of contact.
 - (6) Whenever a gutter forms a continuous point of contact with a separately poured curb or separately poured concrete street.
 - (7) Pavement contraction joints shall be sawed every 17 running feet or as directed by the City Inspector. The joint shall be sawed on a six or one skew as shown on the plans.
 - (8) There will be a sawed joint every 200 square feet of pavement unless waived in writing by the City Inspector (nominal 17x12).
 - (9) Whenever new concrete is placed adjacent to existing concrete.
 - (10) At curb, sidewalk sides of apron, sidewalk, and building sides of driveway.

(f) After the removal of forms, all curbs, sidewalks, or other structures, except those specifically excluded by the City Inspector, shall be backfilled with approved soil (free from stones larger than 1" diameter), and compacted, and either sodded or seeded as may be determined at the beginning of the contract or the issuance of a permit. Compacted top soil shall be placed in the top four inches of fill. In no case shall concrete, wood, metal, stones, other debris, or scraps be allowed in the backfill area or general excavation area.

(g) All fill shall be on a slope no greater than three-to-one unless written permission to the contrary is received from the City Inspector.

(h) Steel forms shall be used throughout the work unless wooden forms are accepted by the City Inspector. Radius forms shall be used on curbed work. All forms shall be oiled and kept in good condition. All forms shall be removed before backfilling.

(i) All work shall be warranted for one year after completion and acceptance. For these purposes, one year shall start when total delineated contracting areas are completed and a letter of acceptance sent to said contractor by the City of Clayton contracting officer. The contractor shall also be responsible for any settlement of disturbed areas within one year.

(j) Unless specifically excluded herein, the contractor and his representative shall adhere to all laws of the City of Clayton and the State of Ohio.

(k) The contractor and his entire work force shall follow such sanitary provisions of the City through its laws and regulations at all times.

(l) When in the opinion of the City Inspector, the subgrade upon which concrete is to be placed is not structurally adequate to support 3,000 pounds per square foot without yielding and will not provide a proper base, the City Inspector may require:

- (1) Compacted #304.02 aggregate base material (6" minimum additional thickness), or #2 stone base material, or an approved substitute.
- (2) Wire mesh, steel bars, or any combination of these reinforcement, and base materials.
- (3) Any fill concrete used for bridging shall be reinforced when determined in the best interests of sound construction.
- (4) Size of bars and mesh shall be approved by the City Inspector taking into consideration load, subsoil, and other conditions that may affect structural strength.

Any or all of the above measures shall be undertaken by the contractor at no expense to the City of Clayton, but shall be a cost of the project born by the contractor.

(m) All concrete shall be completely covered with a white pigmented curing compound after finishing but before setting. Curing compound and application device shall be approved by the City Inspector prior to commencement of work. Minimum application rate shall be one gallon per 200 square feet of surface. Wind protection spray shall be provided. After September 15, no curing compound shall be used on concrete flat work (pavement, aprons, driveways, and sidewalks) unless directed by the City Inspector. All work poured after this date will be sprayed with an anti-spall mixture approximately one week after the concrete is placed. This mixture shall be cure and seal J18 white water base. The contractor shall protect all freshly poured concrete against marking or defacing. The contractor shall promptly replace any defective, defaced, or marred concrete at no expense to the City or property owner.

(n) All structural concrete exposed to weathering shall also be completely covered by spraying with an anti-spall mixture before backfilling. The mixture shall be applied seven days after the forms are stripped.

(o) All items placed within the right-of-way may be tested anytime to verify that they conform with good construction practices. In case of dispute as to methods of testing and structural requirements, the State of Ohio Department of Transportation "Construction and Materials Specifications Manual" shall prevail. The City Manager may, upon notice, change the methods of inspection. In case of disputes, the City Manager may require material to be tested by a testing laboratory at the contractor's expense.

(p) The following additional practices will be required unless otherwise specified by the City Inspector when the following weather conditions occur:

(1) Cold Weather:

Straw, polyethylene cover, curing blankets, or other acceptable means of protection shall be placed over the fresh concrete whenever there is an indication of freezing. These materials shall be on hand when the temperature is below 40 degrees F. No concrete shall be placed on frozen subgrade and blankets will be placed over subgrade, prior to pouring, whenever the overnight temperature falls to 32 degrees F. However, during cold weather, the contractor may use heated water in the production of concrete for the City of Clayton work. The forms may also be heated; however, no calcium chloride shall be added to the concrete in any case.

(2) Rainy Weather:

Whenever there is a possibility of rain, the City Inspector may require the protection of the fresh concrete with polyethylene, canvas, or other acceptable material. Therefore, the contractor shall have this protective material on the job at all times. The protection shall be maintained as directed by the City Inspector. Failure to do so shall be sufficient reason to reject any concrete section. Any rejected concrete shall be corrected at the contractor's expense.

(3) Hot Or Windy Weather:

When in the opinion of the City Inspector, the temperature of the atmosphere or wind conditions are such that accelerated drying or setting of the concrete would result, the City Inspector may require wet burlap bags, or other suitable substitutes to be applied to the concrete surface, or the City Inspector may suspend the placement of concrete. All pavement, driveway, driveway approach, and sidewalk within the right-of-way, concrete shall be poured between ambient temperatures of 90 Degrees F and 40 Degrees F. The City Inspector is granted the right to extend these limits and to include any conditions in accordance with good engineering practices.

(q) The City Inspector shall at all times receive a copy of all concrete batch tickets from the truck drivers or the job foreman. These tickets shall show the volume, time of hatching, type of add mixtures, mix or strength, addition of jobsite water, and specified slump, etc.

(r) All concrete poured within the right-of-way shall not be internally colored, pigmented, nor painted, except for those sections which are so marked for traffic control work or which may be approved by the City Engineer or City Inspector.

- (s) Any driveway cuts, any cuts in the pavement, barrier curb, curb and gutter portion of the right-of-way shall be complete replacement of the sections involved from existing joint to existing joint, unless otherwise marked by the City. Any openings which are cut in concrete pavement, apron, or sidewalk for any purpose shall require the replacement of full sections of concrete from existing joint line to existing joint line, unless otherwise marked or directed by the City Inspector.
- (t) All excavations cuts on hard surfaced streets or structures within the right-of-way shall be made to the full depth of such structures as directed by the City Inspector. Lights and barricades shall be placed around excavations and uncured concrete work.
- (u) All catch basins, sanitary and storm manholes, valve boxes, and other appurtenances in the construction area or those which are involved in the completion of the work shall be kept free from construction materials, rubbish, and shall be cleaned to the satisfaction of the City at the conclusion of the work.
- (v) Concrete delivery trucks shall be washed out only where directed by the City Inspector. The washing area shall be within the limits of the construction site and shall be self-contained. In no case, shall the concrete trucks be washed out adjacent to a natural area, catch basin, or manhole.
- (w) Mud and other debris shall be promptly removed from the site or from adjacent streets when it is trucked onto these roadways, aprons, or sidewalks by concrete delivery trucks or other construction vehicles operating within or to and from the construction site.
- (x) Safety devices and techniques shall be used as mandated by OSHA and as directed by the City Inspector. Reflectorized barrels or Type II barricades of plastic or metal construction in accordance with the ODOT "Manual of Traffic Control for Construction and Maintenance Operations", shall be placed at each end of the excavation for sidewalks and curbs. At driveway aprons, reflectorized barrels shall be spaced at close intervals so that cars may not pass between the barrels. Any safety device not meeting the approval of the City Inspector shall be promptly removed from the project. The City Inspector may order the use of warning lights on the barricades, when in the opinion of the City Engineer or City Inspector, situations warrant the use of such warning lights.
- (y) All new asphalt pavement restoration which causes water ponding shall be corrected by sawing and removal of the faulty portion. New #404 and #402 asphalt pavement shall be machine re-laid unless otherwise approved by the City Inspector. All joints shall be sealed with sealer material. Any damage arising from the corrective work shall be replaced at the expense of the contractor.
- (z) No lateral drains shall be placed through the curb by the property owner unless specifically authorized in writing by the City. During the reconstruction of the curb and gutter work, all such existing drains shall be disconnected. The purpose of this regulation is to limit deterioration of the streets by minimizing water coming to the gutter and to encourage the installation of onsite yard basins connected to the storm sewer.
- (aa) The concrete shall begin to be placed within 30 minutes of arrival at the placement site.

No exceptions to these specifications may be taken unless written permission is received from the City Manager or his designee.

All permit holders are assumed to have read and understood the foregoing. Failure to comply with the foregoing will not be an excuse for nonperformance. Contractors must comply with all other applicable regulations of the City of Clayton.
(Ord. 0-08-12-18. Passed 9-20-12.)

904.05 HORIZONTAL CURB SAWING.

(a) Horizontal Sawing of Concrete. Where concrete aprons have settled and if the apron is in good condition, the adjoining curb may be sawed to the level of the apron provided that the apron settlement is not severe enough to prevent a positive slope being maintained from the apron to the concrete gutter plate.

Curbs and other concrete sections shall be sawed horizontally to produce a uniform slope from the driveway apron to the face of the curb section near the gutter. No sawing work will be accepted which does not have a positive slope across the curb to the gutter plate.

This work shall be accomplished by using a horizontal carbide tipped saw of sufficient diameter to produce a full cut and mounted in a controlled manner from a ground mounted jig or truck mounted stationary platform.

(b) Pre-approval of Contractor. Only contractors who have been preapproved by the City of Clayton in writing shall perform this work. The contractor shall demonstrate to the City his proficiency and the accuracy of his equipment.

Prior to being accepted by the City, no public or private horizontal sawing work shall be performed in the public right-of-way by a non-certified contractor.

(c) Operation Details. The contractor shall saw the curb or other concrete unit adjacent to the apron flush with the surface of the apron at a slope towards the gutter at least equal to the slope of the apron.

The contractor shall bevel cut each end of his horizontal sawing operation to make a smooth transition between the original curb height and the sawed section.

All concrete curb sections, flushings, and other matter removed shall be disposed of by the contractor.

Sharp saw edges in the finished concrete work shall be dressed with a hand-held concrete sander.

The sawed surface shall receive one coat of cure and seal J18 white water base sealer after the surface has dried. If a section of concrete curb below and the sawing level disintegrates or falls out during the operation, the contractor shall clean out the failed area or pocket and the contractor shall replace this area with #404 asphalt.

(Ord. 0-08-12-18. Passed 9-20-12.)

904.06 JACKING OF SLABS.

(a) Jacking of Concrete Slabs. In some cases where a slab of sidewalk or apron has settled and is still sound, it may be possible to return this slab to proper alignment and grade by jacking of a mud slurry under the slab to raise it to serve a proper function. The work shall be accomplished by drilling a small hole or holes in the concrete at specific locations inserting a hose into the hole and pumping a slurry mixture under the slab to align it properly. After the slab is brought to grade, the hose shall be withdrawn and the small hole filled with concrete mortar.

(b) Pre-approval of Contractor. This work shall be performed only by a contractor who has been accepted by the City of Clayton. Work shall be carefully performed to insure that cracks do not appear in the slab. In the event that the slab cannot be raised and adjusted to align with adjacent concrete sections, the work shall be abandoned and the slab replaced by conventional means. (Ord. 0-08-12-18. Passed 9-20-12.)

904.99 PENALTY.

(a) Any person who shall violate any provision of this Chapter, or who shall fail to comply with any order of the City Inspector hereunder, shall be punishable by a fine of five hundred dollars (\$500.00). Each day that any violation or failure continues shall be deemed a separate offense.

(b) Any person aggrieved by a determination or a denial of permit made hereunder may appeal said determination in writing to the Director of Community Services within ten (10) business days of the date of the determination or denial of permit stating the reasons for opposing the determination or denial of permit. After receipt of an appeal, the Director of Community Services shall investigate the matter and may conduct a hearing. After conducting an investigation and/or hearing, the Director of Community Services shall decide whether or not the determination or denial of permit is appropriate. This decision shall be final.

(c) The imposition of a penalty shall not preclude the Department of Law from instituting an appropriate action or proceeding in a court of proper jurisdiction to prevent an unlawful repair or maintenance; to restrain, correct or abate violations; or to require compliance with the provisions of this Chapter or of other applicable laws, ordinances, rules or regulations or with an order or determination of the City Inspector.

Nothing hereunder shall preclude the City from taking any of the following action should it be discovered that work has been or is being performed without a permit:

- (1) Upon request, the property owner and/or contractor who performed or is performing the work shall provide copies of all cement tickets to the City for review to ensure that the standards in this Chapter have been or are complied with;
- (2) Requiring the property owner and/or contractor to excavate at the work site in order to determine if the concrete depth is in compliance with the requirements hereunder;
- (3) Require the property owner and/or contractor to make any required repairs in order to bring the work in compliance with the requirements of this Chapter. (Ord. 0-08-12-18. Passed 9-20-12.)