

Chapter 906  
Concrete for Driveways, Sidewalks, Patios and Streets

906.01	Application.	906.10	Time and temperature of pour.
906.02	Concrete quality.	906.11	Plant and contractor's report.
906.03	Proportioning; mixing; finishing.	906.12	Posting of bond; independent inspection at pour.
906.04	Curing.	906.13	Permit fees.
906.05	Thickness.	906.14	Penalty; equitable remedies.
906.06	Reinforcing.	Exhibit A:	Driveway apron details.
906.07	Base and subgrade.	Exhibit B:	Typical walk and joints; concrete sidewalk detail.
906.08	Joints.		
906.09	Grading.		

CROSS REFERENCES

Dedication and paving of streets - see S. & P.S. Chap. 903  
 Sidewalks - see S. & P.S. Chap. 905  
 Culverts and driveways - see S. & P.S. Chap. 907  
 Masonry - see BLDG. Chap. 1369  
 Entrance walks - see BLDG. Chap. 1392

906.01 APPLICATION.

The regulations of this chapter shall be applicable to the construction of any driveway, sidewalk or patio which is intended for or used for public or private use. Further, these regulations shall be applicable to the construction of streets, whether or not intended for dedication to the City, to the extent that these regulations are not in conflict with specific street regulations contained elsewhere in these Codified Ordinances. For further detail please refer to Exhibit A and Exhibit B at the end of this chapter.  
 (Ord. 2006-12. Passed 4-10-06.)

906.02 CONCRETE QUALITY.

- (a) Any concrete used for any of the purposes set forth in this chapter shall:
- (1) Contain a cement content of six and one-half bag mix, at 94 pounds per bag, of Portland cement; with a minimum compressive strength of 4,000 PSI at 28 day;
  - (2) Contain no more water than will permit a slump between a minimum of two inches and a maximum of four inches;
  - (3) Contain small, clean, durable and well-graded aggregates of a diameter of one inch or smaller; and
  - (4) Contain a total air content from all sources of 6% to 8% at the time of the pour.

(b) Notwithstanding the foregoing, if a contractor elects to utilize a super plasticizer as an additive in concrete, a slump between a minimum of eight inches and a maximum of nine and one-half inches shall be required, and the total air content from all sources may exceed 8% at the time of the pour.  
(Ord. 2006-12. Passed 4-10-06.)

#### 906.03 PROPORTIONING; MIXING; FINISHING.

Concrete shall be proportioned, mixed, handled and finished as follows:

- (a) It shall be proportioned in accordance with ACI 211.1-81 (Revised 1985).
- (b) It shall be mixed and handled in accordance with Chapter 499 of *ODOT Construction Material Specifications* (latest edition), except where Section 499.03 has been superseded by ACI 211.1-81 (Revised 1985).
- (c) Calcium or other admixtures shall be added by the contractor at the job site.
- (d) Finishing shall not occur with bleed or free water standing on the surface.
- (e) Cement shall not be dusted upon a plastic-like surface.
- (f) Water shall not be sprinkled upon a surface as a finishing aid.
- (g) The surface texture shall be finished by trowel, brush, broom or stamped in accordance with this chapter. All the edges are to be tool finished.

(Ord. 2006-12. Passed 4-10-06.)

#### 906.04 CURING.

(a) Concrete shall be cured by the application of a curing compound immediately after finishing, according to the manufacturer's recommendation.

(b) Newly poured and finished concrete shall be protected by placing the necessary barricades to keep traffic off, as well as to provide protection from rain or other elements until surface has properly set.

(Ord. 2006-12. Passed 4-10-06.)

#### 906.05 THICKNESS.

Concrete shall be a uniform thickness, at least six inches thick when used to construct an apron for residential use, and at least eight inches thick when used for commercial use, and at least four inches thick otherwise.

(Ord. 2006-12. Passed 4-10-06.)

#### 906.06 REINFORCING.

Concrete shall be reinforced with steel.

(Ord. 2006-12. Passed 4-10-06.)

#### 906.07 BASE AND SUBGRADE.

A granular leveling course of not less than two inches in depth and made of stone, gravel, limestone screening or other non-settling material approved by the Building Commissioner shall be installed as a base. Excavations or trenches under a drive shall be compacted or filled with a non-settling material and tamped. The subgrade or base shall be dampened if dry before pouring.

(Ord. 2006-12. Passed 4-10-06.)

**906.08 JOINTS.**

(a) It is recommended that jointing be done in accordance with the Standard Jointing Plan kept on file with the Building Commissioner.

(b) Joints may be sealed, however not required.

(c) Isolation joints shall be installed between all concrete work and adjacent public sidewalks, public or private streets, utility castings and drains and structures. Isolation joints in sidewalks need not be spaced closer than 30 feet, center to center, except for those required between the sidewalk and the driveway. The thickness of the isolation joints shall not exceed one-half inch.

(d) Control joints, whether hand-tooled or sawn, shall be to a depth of one-fourth of the thickness of the slab. The dimension of any control joint panel shall not exceed ten feet or as shown on City detail.

(Ord. 2006-12. Passed 4-10-06.)

**906.09 GRADING.**

The center of any driveway shall be lower than each other edge thereof to permit running water to flow freely to catch basin or street.

(Ord. 2006-12. Passed 4-10-06.)

**906.10 TIME AND TEMPERATURE OF POUR.**

(a) Where the temperature in the surrounding area is below 70°F, the maximum allowable time from loading to pour shall be one and one-half hours.

(b) Where the temperature in the surrounding area is 70°F or above, the maximum allowable time from loading to pour shall be one hour.

(c) Where the temperature in the surrounding area falls below 35°F within 24 hours after the pour, the contractor shall protect the pour with straw or other materials approved by the Building Commissioner for at least five days following the pour.

(d) This section is also effective with respect to concrete which is poured to replace a previously existing hard surface or sidewalk.

(Ord. 2006-12. Passed 4-10-06.)

**906.11 PLANT AND CONTRACTOR'S REPORT.**

(a) In any construction regulated by this chapter, all concrete suppliers shall, at the time of loading for delivery to a user, make available the following data on the contractor's delivery ticket:

- (1) The delivery destination;
- (2) The size of the load;
- (3) The concrete mix;
- (4) The total air content from all sources;

- (5) The amount of water added at the plant;
- (6) The admixture added;
- (7) The amount of calcium chloride added; and
- (8) The time of truck loading.

(b) A contractor shall not pour any concrete for which the report indicates noncompliance with any specification of this chapter.  
(Ord. 2006-12. Passed 4-10-06.)

#### 906.12 POSTING OF BOND; INDEPENDENT INSPECTION AT POUR.

(a) The contractor shall arrange and secure the presence of an independent inspection and/or testing laboratory, from among the list of approved laboratories maintained by Building Commissioner, if problems occur during such two years.

(b) The inspection may require under this section the completion of a form, to be promulgated by the Building Commissioner, which form certifies that the pour is conducted in compliance with the pertinent requirements of this chapter, and which form also certifies various physical criteria, including the amount of water added at the site and the area temperature at the time of pour. A separate form shall be required for each load used on the driveway, sidewalk or street.

(c) Such form shall be completed and signed by the representative of the concrete supplier and the contractor and shall be submitted to the Building Commissioner within one week and, in any event, prior to final inspection or approval by the City.

(d) Whenever a landowner is acting as his or her own contractor, he or she may sign a waiver exempting his or her own work from this section and waiving any subsequent claims against the City in connection therewith. However, such a waiver shall not be permitted in any instance where the actual work is to be performed by a contractor for a fee, even though the landowner names himself or herself at the general contractor.

(e) This section is also effective with respect to concrete which is poured to replace a previously existing hard surface driveway or sidewalk.  
(Ord. 2006-12. Passed 4-10-06.)

#### 906.13 PERMIT FEES.

(a) The following fees, to include inspections, review by the Building Inspector and/or from the Building Department and Building Consultant, shall be paid to the Municipality to cover permit fees and inspections, shall be for the new installation, replacement, or alteration of any previously existing hard surface as follows:

- |               |         |
|---------------|---------|
| (1) Driveways | \$60.00 |
| (2) Aprons    | \$30.00 |
| (3) Sidewalks | \$30.00 |

- (4) Yardwalks \$30.00
- (5) Commercial Parking Lots \$60.00 and \$2.00/5,000 sq. ft.
- (6) Patio \$30.00
- (7) Re-Inspection \$50.00
- (8) Repair work (less than 50 square feet) for driveways, aprons, sidewalks, yardwalks and patios shall be one-half the dollar amount stated in divisions (a)(1), (2), (3), (4) and (6).  
(Ord. 2006-12. Passed 4-10-06.)

906.14 PENALTY; EQUITABLE REMEDIES.

(a) Whoever violates or fails to comply with any of the provisions of this chapter is guilty of a misdemeanor of the fourth degree and shall be fined not more than two hundred fifty dollars (\$250.00) or imprisoned not more than 30 days, or both, for each offense. A separate offense shall be deemed committed each day during or on which a violation or noncompliance occurs or continues.

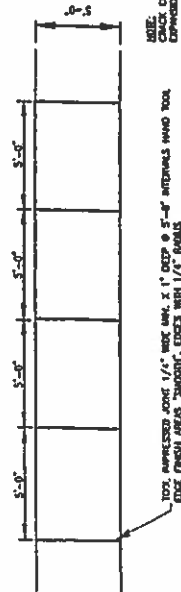
(b) Other Legal Action. The imposition of any penalty shall not preclude the Department of Law from instituting an appropriate action or proceeding in a court of proper jurisdiction to prevent an unlawful repair or maintenance; to restrain, correct or abate violations; to prevent the occupancy of a dwelling, building, structure or premises; or to require compliance with the provisions of this chapter of other applicable laws, ordinance, rules or regulations or with the orders or determination of the Building Inspector.

(Ord. 2006-12. Passed 4-10-06.)



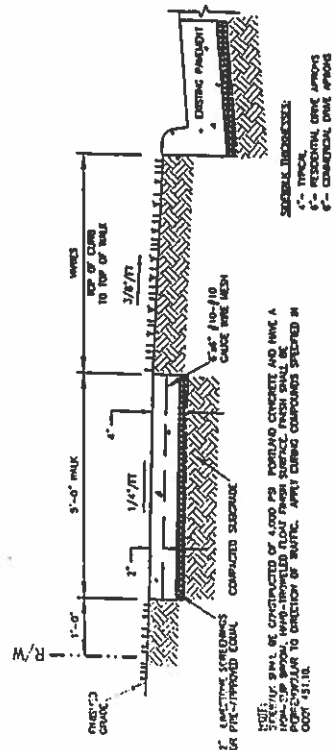


EXHIBIT "B"



NOTE: JOINTS SHALL BE AT MINIMUM 1/4" INTERVALS. JOINTS 1/2" THICK COMPRESS WITH FLASH THROUGH FULL DEPTH.

**TYPICAL WALK FINISH AND JOINTS**  
NOT TO SCALE



**CONCRETE SIDEWALK DETAIL**  
NOT TO SCALE

- NOTES:
- 1) ALL REINFORCING ALONG WITH SIZING OR SCHEDS SHALL BE INCLUDED WITH ANY SIDEWALK CONSTRUCTION.
  - 2) USE HIGH STRENGTH AND BRASS CAP FOR SCHEDS LOCATED IN THE WALK AREA AND ADJUST TO GRADE.
  - 3) ALL FINISH UTILITY WAVE EDGES IN THE WALK AREA SHALL BE ADJUSTED TO TOP OF WALK AS REQUIRED BY THE UTILITY COMPANY.
  - 4) HWB-INMILLED FLAKE OR FINE BRUSH FINISHES ARE ACCEPTABLE.
  - 5) CURB AND SCHEDS REQUIRED FOR ALL WALKS AND CURB ISLANDS.
  - 6) SEE "TYPICAL" DETAILS FOR DRIVE SPECIFICATIONS.
  - 7) FOR SCHEDULES INSTALLED THROUGH EXISTING ASPHALT APPROX. THE AMOUNT OF ASPHALT REMOVAL AND REPAIR WILL BE DETERMINED BY THE INSPECTOR. ALL EDGES OF REPAIRS WILL BE SUBJECT TO FINISH A NEAT EDGE.
  - 8) SIDEWALK CROSSING ASPHALT DRIVEWAYS SHALL HAVE ALL JOINTS SEALED WITH ASPHALT CEMENT AS DIRECTED BY THE INSPECTOR.
  - 9) ALL WALK MATERIAL SHALL BE COMPACTED BY MEANS OF A MECHANICAL TAMPER OR OTHER APPROVED EQUIPMENT.
  - 10) ALL JOINTS SHALL BE TOoled ON THE CUT.

NOTE: THIS SHALL BE CONSTRUCTED OF 4000 PSI PORTLAND CONCRETE AND HAVE A TOP-SURF BRUSH, HWB-INMILLED FLOAT FINISH. FINISH SHALL BE PERPENDICULAR TO DIRECTION OF TRAFFIC. APPLY CURING COMPOUND SPECIFIED IN CDD-151.10.

CITY OF PARMA HEIGHTS, OH  
STREETS AND PUBLIC SERVICES CODE  
12H