



## MINIMUM REQUIREMENTS FOR A DRIVEWAY APPROACH

1. MUST USE SIX BAGS PER CUBIC YARD, AIR-ENTRAINED PORTLAND CEMENT CONCRETE.
2. THE APPROACH AND SIDEWALK PORTION BOTH MUST BE A MINIMUM OF 7" THICKNESS.
3. THE GRADE IS ESTABLISHED BY THE CITY ENGINEERING DEPARTMENT. BACK OF WALK ELEVATION SHOULD BE ONE FOOT HIGHER THAN FLOW LINE OF THE CURB WITH 1-1/4" PITCH TOWARD THE STREET.
4. THE DISTANCE TO THE BACK OF WALK SHOULD BE ONE FOOT LESS THAN THE DISTANCE TO THE PROPERTY LINE.
5. 1/2" X 7" EXPANSION JOINT MATERIAL MUST BE PLACED BETWEEN THE CURB AND THE APPROACH.
6. CALL FOR INSPECTION OF FORMED APPROACH 24 HOURS PRIOR TO POURING—414-425-0084 OR 414-425-7510. INSPECTIONS ARE DONE BETWEEN 8:30 A.M. AND 10:00 A.M., MONDAY – FRIDAY.
7. ALL INSPECTION REQUESTS MUST HAVE PERMIT NUMBER AND THE CORRECT ADDRESS. INSPECTION RESULTS MUST BE REQUESTED, ALSO REQUIRING THE PERMIT NUMBER.
8. COMPLETE SPECIFICATIONS ARE AVAILABLE IN THE OFFICE OF THE ENGINEER OR BUILDING INSPECTOR AS REQUIRED BY ORDINANCE NO. 70-268.

- 3.9.6 It is the City's intent to allow the removal of the existing curb **head** section of the concrete curb and gutter to provide an opening to be used for the installation of the driveway approach. A driveway approach permit is required for curb **head** removal and must be obtained from the Building Inspection Office prior to starting this work. **Complete removal and replacement of curb sections for drive approach openings is also allowed, but remaining undisturbed sections cannot be less than 5' in length.**
- 3.9.7 The curb cut shall allow for 1/2" rise from the gutter to the beginning of the cut of the curb back. The ascending slope from that rise to the back of the curb shall be 1 inch.
- 3.9.8 Existing curb shall be cut with an 18 inch down slope at each side of the driveway opening.
- 3.9.9 Existing curb expansion joints shall be a minimum of 6 inches from the down slope **on** each side of the driveway opening. Existing curb expansion joints will not be allowed in either down slope cut. **An inspection is required prior to cutting, certifying proper location. See Figure 11.**

### 3.9 CONCRETE DRIVEWAY APPROACH REQUIREMENTS

- 3.9.1 All driveway approaches require a permit issued by the City of Franklin.
- 3.9.2 Concrete for approaches shall be grade A, air entrained and shall conform to Section 501 of the State of Wisconsin Standard Specifications for Road and Bridge Construction, and in particular, meet the following requirements: minimum concrete content, 6.0 bags per cubic yards; compressive strength after 28 days cured, 3,500 psi; maximum amount of water per bag of cement, 6.0 gallons; size of coarse aggregate required, #1 plus #2; slump, 1"-3"; air content, 4.5%-7.5%. White curing membrane meeting the requirements for Type 2 of the standard specifications for liquid membrane performing compounds for curing concrete AASHTO designation M148 shall be used to cover all finished concrete.
- 3.9.3 Drive approach and walk sections of the approach shall be a minimum of 7" thick.
- 3.9.4 One-half inch (1/2") x 7" expansion joint material full depth shall be placed between the curb and gutter and the approach or as directed by the City of Franklin Engineering staff.

- 3.9.5 Approach grades and configuration shall conform to specifications as given in Figures No. 11, No. 12, No. 13 and No. 14.
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- 3.9.10 A special driveway approach has been designed for commercial and industrial development by the City of Franklin Engineering Department. This detail is available through the Engineering Department.

### 3.10 CONCRETE WALK

- 3.10.1 Concrete walks shall be constructed five feet wide and five inches thick and to the line and grade shown on the plans unless otherwise specified. Concrete driveways shall be seven inches thick and shall be built to the width and location directed by the Engineer. Walk sections shall be 7" thick for the width of all pre-engineered driveway opening in the curb and gutter.
- 3.10.2 Concrete for walk shall be grade A, air entrained and shall conform to Section 501 of the State of Wisconsin Standard Specifications for Road and Bridge Construction, and in particular, meet the following requirements: minimum concrete content, 6.0 bags per cubic yard; maximum amount of water per bag of cement, 6.0 gallons; size of coarse aggregate required, #1 plus #2; slump, 1"-3"; air content, 4.5%-7.5%. Curing membrane meeting the requirements for Type 2 of the standard specifications for liquid membrane performing compounds for curing concrete AASHTO designation M148 shall be used to cover all finished concrete. Fly ash

as a mix additive may be used between April 15 and October 15 if approved in writing by City Engineer.

- 3.10.3 The subgrade shall be thoroughly compacted within two inches of proper elevation before the forms are set. Any soft or spongy subgrade material shall be removed and replaced with suitable filling material. Where the walk is to be poured adjacent to the curb, the backfill material behind the curb shall be compacted in a manner suitable to the Engineer.
- 3.10.4.1 The forms shall be an approved type of WOOD OR metal form extending the full depth of the concrete. The forms shall be set upon the prepared subgrade to proper line and grade and firmly staked in position. The slope across the walk shall be 1/4 inch per foot unless otherwise directed or shown on the plans. Where walk is being installed on a radius of less than 250 feet, flexible forms shall be used. The fine grading shall then be completed and the subgrade thoroughly compacted by a power roller weighing not less than three tons. Areas which are inaccessible to the roller shall be compacted by using an approved mechanical vibratory compactor. The contact surfaces of the forms shall be clean and coated with oil. The Contractor must continually have, in advance of the concrete pour, at least two hundred (200) lineal feet of form setting and fine grading completed for inspection.
- The forms and form pins shall not be loosened or removed for at least eight (8) hours after the concrete is poured.
- 3.10.5 Before placing concrete, the forms shall be checked for correct line and grade and the subgrade checked for correct height. The subgrade shall then be sprinkled with sufficient water to thoroughly dampen it, but not enough to form muddy areas. The concrete shall then be placed to the proper height, consolidated and struck off flush with the top of the forms.
- 3.10.6 One-half inch non-extruding expansion joint material extending the full depth of adjacent concrete shall be installed at or near all street lines and all other locations as designated in the field. The expansion joint shall be held in place by the use of full depth plates firmly staked in place. The distance between expansion joints shall in no case exceed 75 feet. One-half inch X 5-inch expansion joint material shall also be furnished at all locations where the sidewalk abuts the curb, a building or other field obstruction.
- 3.10.7 After depositing the concrete, the surface of the walk shall be struck off at finished grade with an approved type of screed. A mechanical vibrator shall be attached to the screed if directed.

The surface shall then be worked with wood or metal floats until a thick, uniform mortar surface is obtained. A hand float operated in a circular motion shall be the final floating operation. Immediately after the water glaze or sheen has disappeared, the surface shall be troweled smooth by the use of a metal trowel. The second troweling shall be performed with a rectangular steel trowel operated by hand in a circular motion. The application of neat cement to the surface is prohibited.

The separator plates shall be removed and the edges of all slabs rounded with an edging tool having a one-quarter inch radius. After all troweling and edging is completed and the concrete has attained a partial set, the surface shall be brushed with a damp soft bristle brush.

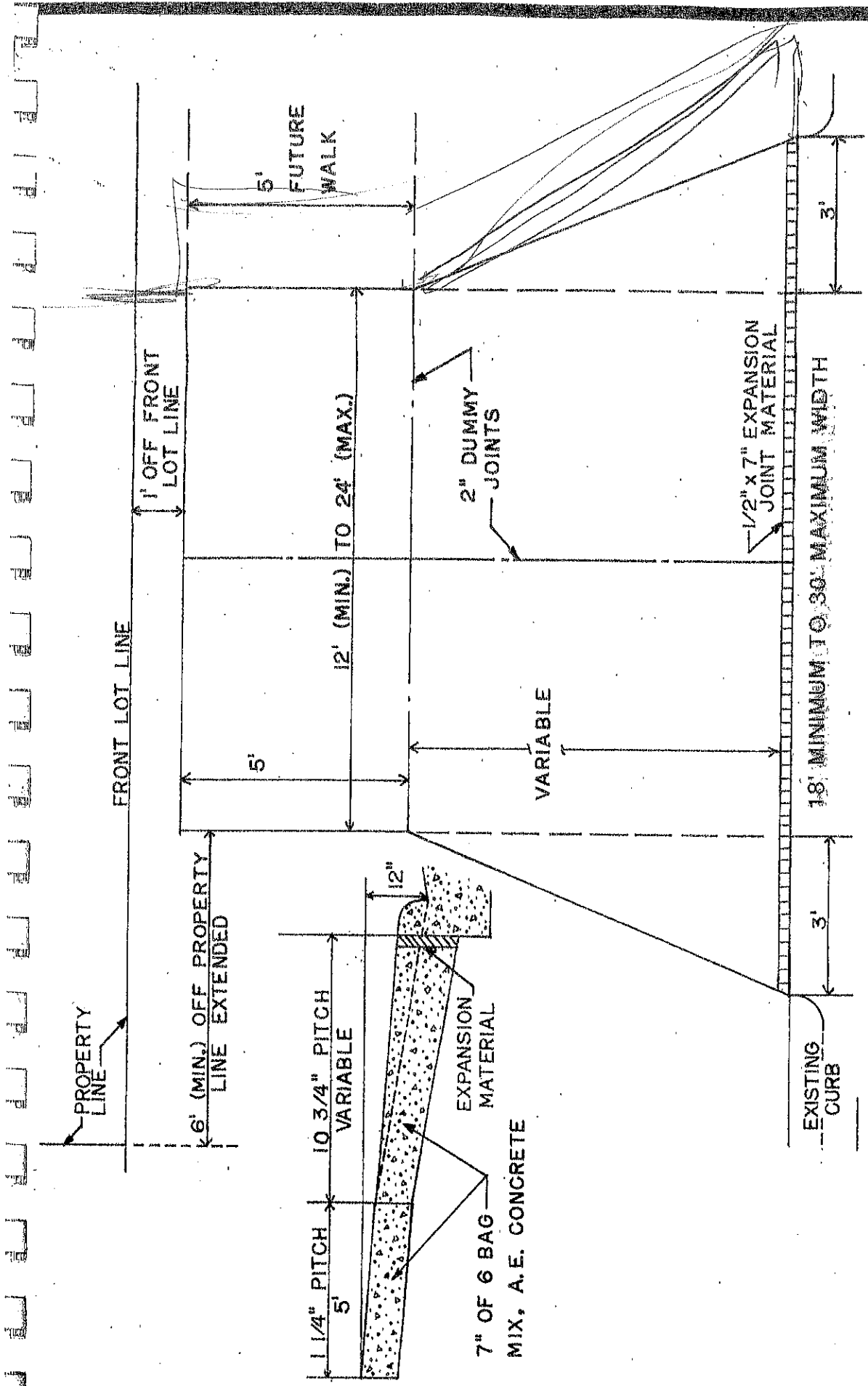
~~The Contractor shall mark the ends of each portion of work with a stamp, showing contractors name and date of work. The Contractor shall protect the fresh concrete with a barricade at each end of the pour and at intervals of approximately two hundred (200) feet.~~

- 3.10.8 Curing of the concrete shall comply with the requirements of Chapter 10.
- 3.10.9 No concrete walk shall be installed on a frozen base.
- 3.10.10 The contractor may, with the approval of the Engineer, elect to use a machine for placing, forming, and consolidating concrete for concrete walk. If a machine is used, the resulting concrete walk shall be of such quality as to equal or exceed that produced by formed methods.

The concrete shall be deposited, consolidated, and slip formed to the required section and depth.

Contraction joints shall be formed by the use of steel separator plates. Construction joints shall be not less than 1/4 inch wide and one inch deep. Contraction joint spacing shall be 5 feet or as directed. Finished joints shall have 1/4 inch radius.

After floating, troweling, and jointing, the concrete shall be brushed with a damp bristle brush.

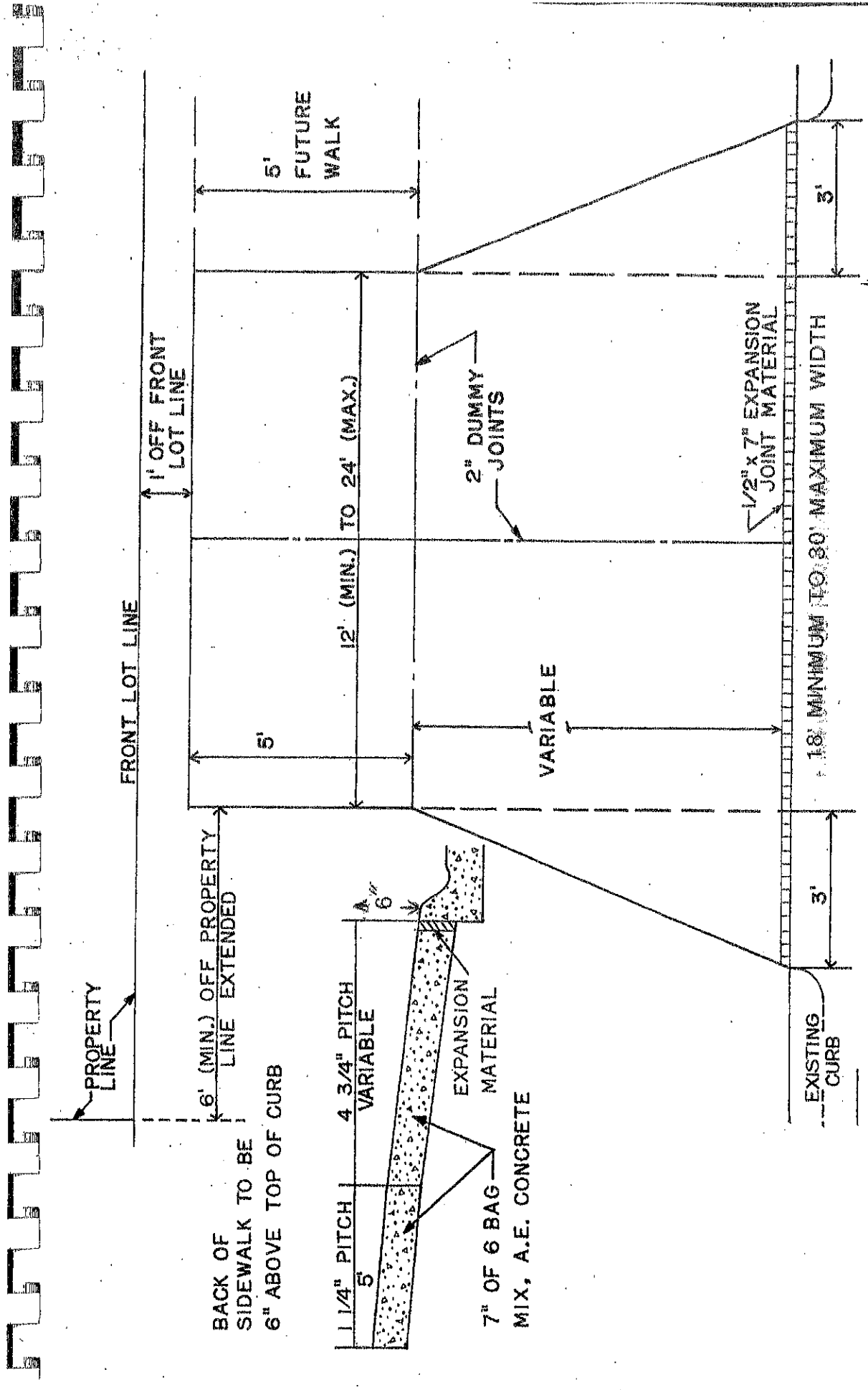


**TYPICAL FLARED DRIVEWAY  
APPROACH - VERTICAL FACE  
CONCRETE CURB**

DRAWN BY 126  
APPROVED BY  
FRANKLIN  
ENGINEERING DEPT.  
NOT TO SCALE

NOTE: FOR REMOVAL OF CURBHEAD FOR DRIVEWAY OPENING  
REFER TO SECTION 3.9 OF FRANKLIN DESIGN STANDARD AND  
CONSTRUCTION SPECIFICATIONS

Figure No. 11



**TYPICAL FLARED DRIVEWAY  
APPROACH - MOUNTABLE  
CONCRETE CURB**

FRANKLIN  
ENGINEERING DEPT.

DRAWN BY TEG

APPROVED BY \_\_\_\_\_

NOT TO SCALE

NOTE: FOR REMOVAL OF CURB HEAD FOR DRIVEWAY OPENING  
REFER TO SECTION 3.9 OF FRANKLIN DESIGN STANDARD AND  
CONSTRUCTION SPECIFICATIONS

Figure No. 12