

## CHAPTER TEN

## ENTRANCES

DESIGN OF COMMERCIAL ENTRANCES

10-1

A paved driveway turnout (Std. No. 848.04) shall be used for commercial type entrances that generate 500 ADT or more. A shopping center is considered a major traffic generator. To provide the most efficient ingress and egress movements, minimum 25' radii should be provided. Longer radii should be considered to better accommodate service type vehicles. The designer is also encouraged to provide as much channelization as possible into any commercial development that is being constructed in conjunction with a roadway project.

For commercial type developments that generate less than 500 ADT, a paved driveway turnout (Std. No. 848.02 or Std. No. 848.03) may be used. A small family business is considered a minor traffic generator.

For additional information, see the "Policy on Street and Driveway Access to North Carolina Highways" from the Alternative Delivery Unit or on the NCDOT website:

<http://www.ncdot.org/doh/preconstruct/altern/value/manuals/>

DESIGN OF PRIVATE ENTRANCES

10-2

A minimum 20' width should be used for standard driveway turnouts in conjunction with curb and gutter (Std. No. 848.02 or Std. No. 848.03). A 16' width driveway turnout may be used where justified and approved by the Engineer.

ENTRANCE PIPES

10-3

On minimum type driveways, the total graded width should not be less than 16'. This allows for an effective paved or aggregate travelway of 12'. Normally, 20' of 15" pipe would be required for a drive of this type having minimum cover. However, sound engineering judgment should be used in determining the proper driveway width and length of pipe based upon factors such as skew of drive, height of cover, type of drive, and unusual traffic patterns. On drives where commercial vehicles are subject to encroach upon the end of pipe, extension of the pipe may be justified.

When a clear roadside recovery area is being provided on a project, the ditches shall be graded to allow installation of the entrance pipes at the same specified distances. See Part I, Chapter 5-20, of this Manual for additional information.

DISCUSSION OF ENTRANCES ON FIELD INSPECTIONS

10-4

Standard street and driveway turnouts shall always be discussed during the Field Inspections. The type and location shall be approved by the field inspection review team. This information is included in the “notes for field inspection”.

There is information available in the Manuals Group, Special Services Section of the Alternative Delivery Unit, for the designer's use in the design of parking lots.

There is also information available on the channelization of intersections and commercial establishments.

REPLACEMENT OF EXISTING DRIVEWAYS

10-5

When widening an existing roadway, the Project Engineer shall assure that all existing access connections that are to be replaced conform to the current edition of the “Policy on Street and Driveway Access to North Carolina Highways”. No new driveway turnouts/connections shall be placed/alterd on the final plans without the express consent and approval of the local District Engineer. When it is determined that a new access connection will be allowed, a separate agreement between the Department of Transportation and the applicant will be required.