NOTES

GENERAL: Install rumble strips on new or existing asphalt or concrete shoulders. The pattern is designed so that it can be milled or ground into the shoulder material. See specifications for details.

See PLACEMENT NOTES Location of Rumble Strips.

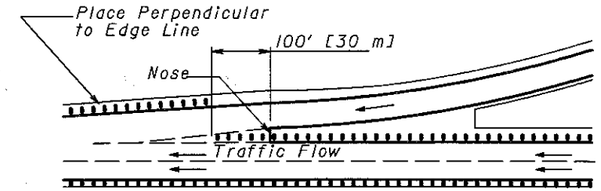
A rumble strip should not be closer than 4" [100] to any joint, transverse or longitudinal, in concrete shoulders.

OUTSIDE SHOULDER OFFSET: On median shoulders 12 feet [3.6 m] or wider, where the shoulders have been designed for maintenance of traffic during construction, the pattern should be placed near the middle of the shoulder (see table at left for offsets). The purpose for this is so that traffic can be maintained on the median shoulder during a "Phase 1" traffic maintenance sequence and straddle the pattern. "Phase 2" traffic can be maintained on the newly-aved outside shoulder prior to placement of the new rumble strip pattern. See table, below.

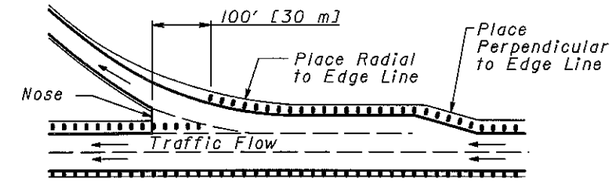
MEDIAN SHOULDER OFFSET: In built-up residential areas where noise may be objectionable, this dimension may be increased, but should not exceed 24" [600]. See table, below.

PAYMENT: Rumble Strips are to be paid under **Item 618 - Rumble Strips, (Asphalt, Concrete) Lineal Feet [Meter] (Miles [Kilometers]).**

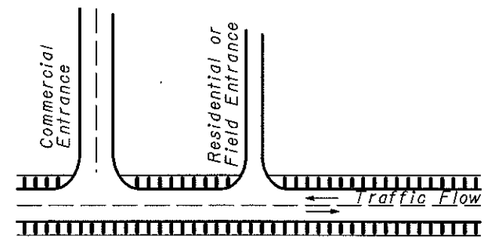
LOCATION OF RUMBLE STRIPS



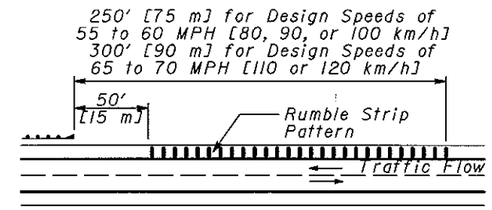
ENTRANCE TERMINALS (See NOTE 1)



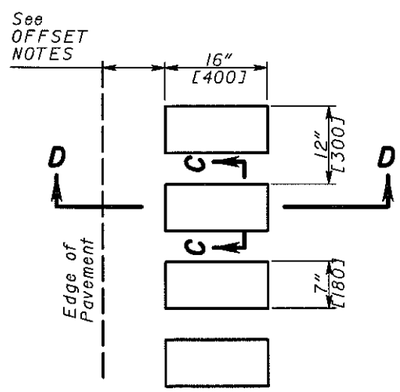
EXIT TERMINALS (See NOTE 1)



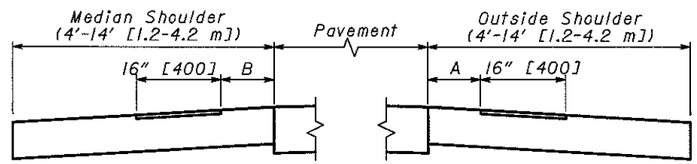
ACCESS POINTS ON ARTERIALS
(See NOTE 3)



RUMBLE STRIPS LOCATIONS IN ADVANCE OF CRITICAL LOCATIONS
(See NOTE 4)



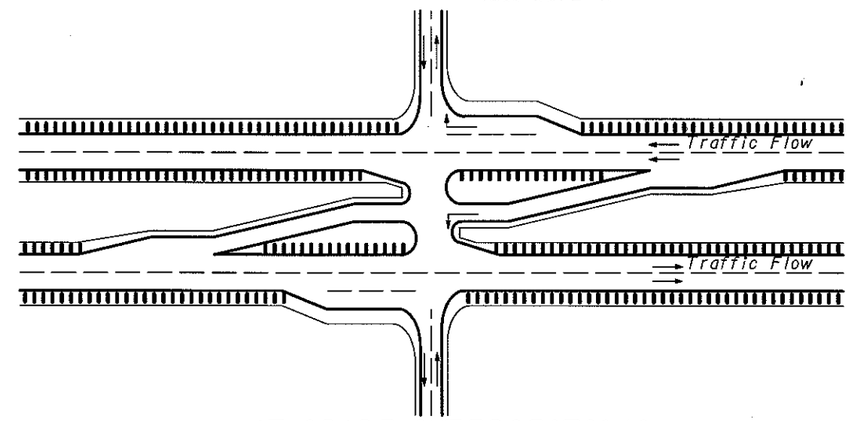
TYPICAL SPACING PLAN



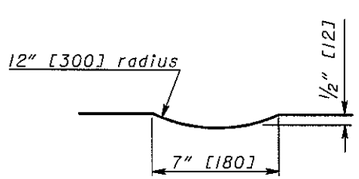
For dimensions A and B, see table at left.

MEDIAN APPLICATION OUTSIDE APPLICATION

SECTION D-D



AT-GRADE INTERSECTIONS
(See NOTE 2)



SECTION C-C

OUTSIDE SHOULDER OFFSET (See NOTES)
A = 6" [150] for 4' to 6' [1.2 to 1.8 m] shoulders
A = 10" [250] for shoulders greater than 6' [1.8 m]
MEDIAN SHOULDER OFFSET (See NOTES)
B = 6" [150] for 4' to 6' [1.2 m to 1.8 m] shoulders
B = 10" [250] for 8' to 10' [2.4 to 3.0 m] shoulders
B = 5' [1.5 m] for 12' [3.6 m] shoulders
B = 6' [1.8 m] for 14' [4.2 m] shoulders

OFFSET DIMENSIONS

PLACEMENT NOTES

1. At entrance and exit terminals, the outside shoulder pattern should be extended toward the ramp juncture as far as possible, and then shifted over to the outside shoulder of the terminal area. The "nose" of an entrance or exit terminal is a logical reference point. On either terminal, extend the pattern 100' [30 m] into the terminal area and then transfer to the outside shoulder.

2. The AT-GRADE INTERSECTION diagram shows a typical application for divided roadways, but the patterns on the outside shoulders are also applicable to undivided roadways.

3. Where rumble strips are used on the shoulders of arterial roadways, the pattern should be interrupted across residential or commercial drives.

4. Rumble strips, when used in advance of critical locations, such as approaches to narrow bridges, in gore areas, and ahead of impact attenuators or other barrier end treatments, should be placed as shown.

THIS DRAWING REPLACES BP-9.1 DATED 10-17-03.

OHIO DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN ENGINEER
DATE 4-15-05
STDS. ENGR. D. Focke
All metric dimensions (in brackets [ ]) are in millimeters unless otherwise noted.
ROADWAY ENGINEERING SERVICES
STANDARD ROADWAY CONSTRUCTION DRAWING
SHOULDER RUMBLE STRIPS
NUMBER BP-9.1
1/1