Determining the method of installation for rumble strips in existing concrete shoulders on a case-by-case basis.

For rumble strips on existing concrete, determine the method of installation.

Discontinue intermittent rumble strips in front of guardrail if the shoulder is less than 4' (1.2 m) in width.

Rumble strip spacing:
- Greater than 4' (1.2 m)
- 60' (14.4 m) cycle pattern
- 47'-0" to 47'-8" (3.7 m to 3.9 m) gap
- 12'-4" to 13'-0" (3.7 m to 3.9 m) gap

TYPICAL APPLICATION
- Approaches
- Intersections
- Scenic turnout
- Historic marker turnout
- Farm field approach
- Mailbox

Discontinue rumble strips along the full length of medians with private approaches, farm field approaches, historic marker turnouts, scenic turnout.

CONTINUOUS RUMBLE STRIPS
- Cold milled rumble strip
- Formed rumble strip

DISCONTINUE RUMBLE STRIPS
- Greater than 4' (1.2 m)
- 60' (14.4 m) cycle pattern
- 47'-0" to 47'-8" (3.7 m to 3.9 m) gap
- 12'-4" to 13'-0" (3.7 m to 3.9 m) gap

NOTE:
- Do not install rumble strips over concrete bridge decks or where installed, such as concrete barrier rails, prevent proper placement.
- Units shown in brackets are in millimeters (mm) unless otherwise specified.

MTDXT DEPARTMENT OF TRANSPORTATION

REFERENCE SHEET
- DWG. NO. 411-02
- SECTION 412
- RUMBLE STRIPS
- CONCRETE
- ASPHALT
- DEPTH
- RADIUS
- SPAN
- Continuous rumble strips
- Interstate application
- Interstate ramp point
- Exit ramp point
- Entrance ramp point
- Taper point
- Median and shoulders
- Continuous rumble strip
- Taper point
- Exit and entrance ramps.
- Shown in brackets ( ) are in millimeters (mm) unless otherwise specified.
INTERMITTENT RUMBLE STRIP SPACING

DISCONTINUE INTERMITTENT RUMBLE STRIPS IN FRONT OF GARDIANS IF THE SHOULDER IS LESS THAN 6' (1.8 m) IN WIDTH.

4' (1.2 m)

60' (18.3 m) CYCLE PATTERN

47'-0" (14.4 m TO 14.6 m) GAP

12'-4" TO 13'-0"

DIRECTION OF TRAVEL

(ASPHALT PAVEMENT)

TYPICAL SHOULDER INSTALLATION

LANE EDGE STRIPE

RUMBLE STRIP

COLD MILLED

TRAVEL LANE

DEPTH

1/2" TO 3/4"

ASPHALT

RADIUS

SPAN (mm)

6 7/8" TO 8 3/8"

12" MAX.

DECK

300 MAX.

175 TO 200

SPAN (mm)

RADIUS (mm)

ASPHALT

13 TO 19

DEPTH (mm)

1/2" TO 1 1/2"

DEPTH

PLAN

SECTION A-A

SECTION B-B

SPAN

DEPTCH

12" MAX.

RADIUS

13" TO 19

SPAN (mm)

6 7/8" TO 8 3/8"
SECTION A-A

SECTION B-B

SECTION A-A

ENGLISH DIMENSIONS

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METRIC DIMENSIONS

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<tr>
<td>3</td>
<td>0.25 SHOULDER</td>
</tr>
</tbody>
</table>

NOTE:

- Do not install centerline rumble strips on concrete bridge decks.
- Consider milling existing centerline rumble strips prior to a second seal and curb application.
- Break centerline rumble strips for public installation is appropriate.

PUBLIC APPROACH:

- Use engineering judgment on a case-by-case basis to determine if centerline rumble strip installation is appropriate.
- Break centerline rumble strips for public approaches only.
- Consider milling existing centerline rumble strips prior to a second seal and curb application.
- Do not install centerline rumble strips on concrete bridge decks.

NOTE:

- Units shown in brackets [ ] are metric and are not millimeters (mm) unless otherwise noted.

RUMBLE STRIP DETAIL

SPAN | DEPTH
--- | ---
A | B
24' (7365) | 24' (7365)
30' (915) | 30' (915)

RUMBLE STRIP DETAIL

SPAN | DEPTH
--- | ---
A | B
12' (3048) | 12' (3048)
24' (6096) | 24' (6096)
30' (915) | 30' (915)

REFERENCE: MONTANA DEPARTMENT OF TRANSPORTATION

SD COMPLIANCE STANDARDS: 411-05