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|---|--|-------------------------------------|----------------------------|--------------------------------------|
| SUBJECT Closing Medians on the Interstate and Non-interstate Freeways | FINAL NUMBER RD15-04 | EFFECTIVE DATE 03/27/2015 | VALIDATION DATE | SUPERSEDES or RESCINDS NEW |
| TOPIC/PROGRAM <u>Highway Design Manual</u> | APPROVED SIGNATURE Original signed by: Bob Pappé, PE, PLS State Traffic-Roadway Engineer | | | |

PURPOSE

The purpose of this bulletin is to change ODOT’s policy that applies to closing medians on interstate and non-interstate freeways.

BACKGROUND

Section 5.2.9.1 of the Highway Design Manual (HDM) discusses when closing medians on interstate and non-interstate freeways is warranted. Currently Section 5.2.9.1 states that any open freeway median 60 feet in width or less shall be closed with an appropriate barrier system as shown in Table 5.1 of the HDM.

ODOT recently reviewed freeway median cross-over crashes from 2006 to present. As a result of this review, and specific to interstate highways, ODOT produced a document titled “Priorities for Closing Open Median Sections on Interstates”, which is an attachment to this Technical Bulletin. That document lists by specific milepoint the interstate highway sections where ODOT has determined it to be a high priority to close the medians, as well as those interstate highway sections determined to be a lower priority to close the medians. Interstate highway sections not listed in the document already have closed medians. The high priority sections to install median barrier generally have median widths of 100 feet and less, and the lower priority sections generally have median widths of 100 feet and greater.

The width of an open freeway median, as defined by AASHTO (American Association of State Highway Officials), is measured between the inside fog lines of opposing directions of traffic.

GUIDANCE

The Highway Design Manual will be changed to direct that interstate and non-interstate freeway medians 100 feet and less shall be closed. By closing certain open freeway medians, serious head-on crashes can be prevented, thereby reducing fatal and injury crashes.

Regions will follow the “*Priorities for Closing Open Median Sections on Interstates*” document as they program projects to close interstate highway medians. In addition to the “*Priorities for Closing Open Median Sections on Interstates*” document, this technical bulletin applies to the sections of interstate freeways and non-interstate freeways listed in the table at the bottom of this bulletin.

Three criteria will be used to determine when closing a freeway median will be required: 1) Regions will follow the “*Priorities for Closing Open Median Sections on Interstates*” document as they program projects to close interstate highway medians. 2) The minimum freeway median width that warrants closing with appropriate barrier treatment will be raised to 100 feet and less, and 2) for freeway medians greater than 100 feet wide, regions should evaluate site specific conditions and crash data to determine if the median should be closed.

ACTION REQUIRED

This Technical Bulletin will revise Section 5.2.9.1 of the Highway Design Manual which discusses interstate and non-interstate freeway median barrier warrants. The change will require freeway median widths of 100 feet and less to be closed with appropriate barrier. The intent of this technical bulletin and the change to the HDM is that by December 31, 2021 ODOT will have made substantial progress toward completion of closing all interstate and non-interstate freeway medians of 100 feet wide and less.

Regions will follow the attached “*Priorities for Closing Open Median Sections on interstates*” document as they program projects to close interstate highway medians. On non-interstate freeways included in the table below, regions will apply this technical bulletin and Section 5.2.9.1 of the Highway Design Manual by installing appropriate barrier treatment in freeway medians with a width of 100 feet or less. Regions should also evaluate site specific conditions and crash date for wider freeway medians to determine if they should also be closed.

The following table lists Oregon’s interstate and non-interstate freeways that this Technical Bulletin applies to. However, for the purpose of closing freeway medians, Regions are also encouraged to identify and evaluate any other sections of divided highways that they determine look and feel like interstate and non-interstate freeways to determine if the median should be closed.

INTERSTATE/FREEWAY LIST

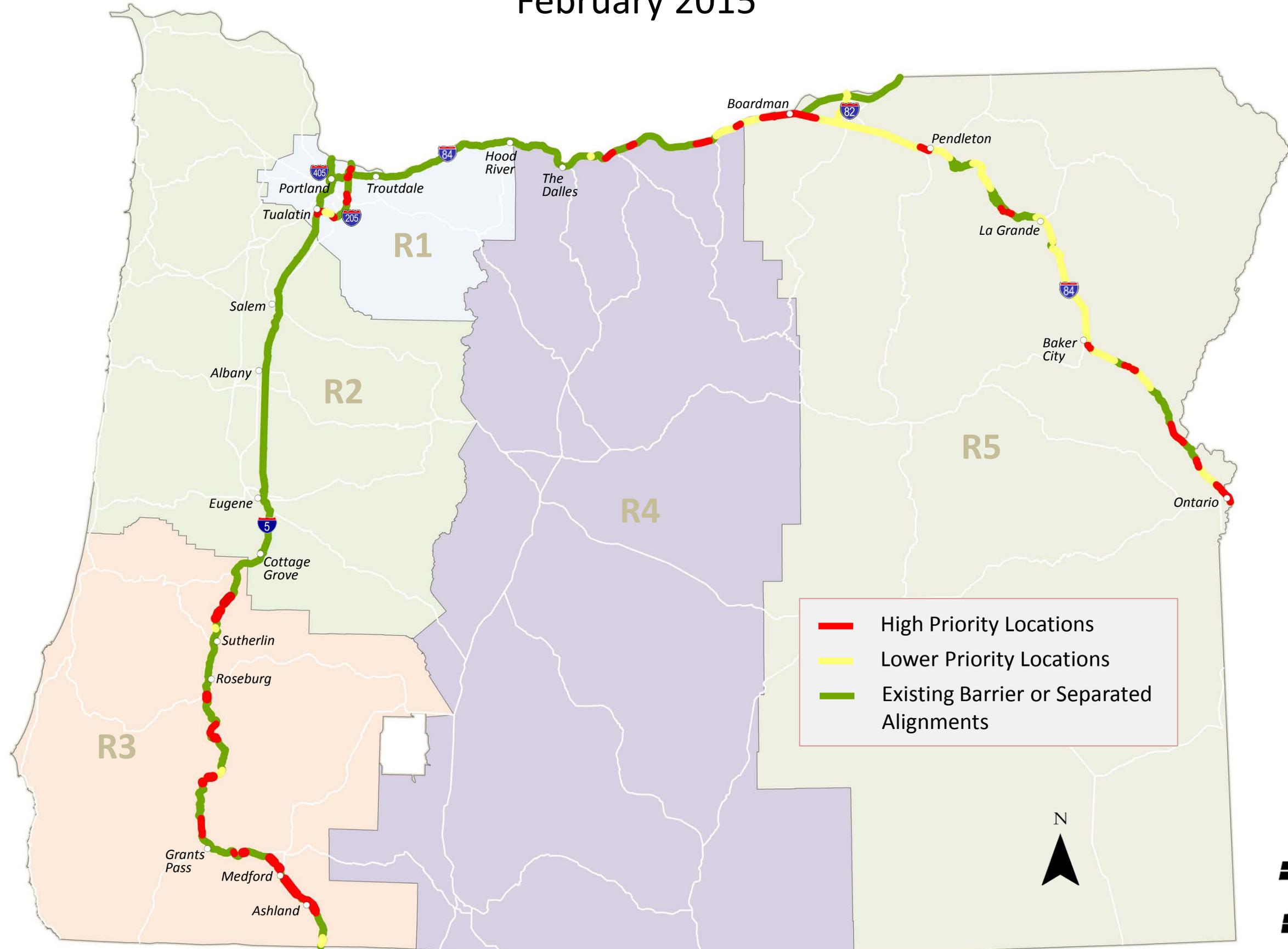
| Hwy | Route | Highway Name | Begin MP | End MP | |
|------------|--------------|-----------------------|-----------------|---------------|------------|
| 1 | I-5 | Pacific | 0.00 | 308.38 | Interstate |
| 2 | I-84 | Columbia River | 0.00 | 167.58 | Interstate |
| 6 | I-84 | Old Oregon Trail | 167.58 | 378.01 | Interstate |
| 61 | I-405 | Stadium Freeway | -0.04 | 4.21 | Interstate |
| 64 | I-205 | East Portland Freeway | 0.00 | 26.56 | Interstate |
| 70 | I-82 | McNary | 0.00 | 11.21 | Interstate |
| 227 | I-105 | Eugene-Springfield | 0.00 | 3.49 | Interstate |
| 30 | OR 22 | Willamina-Salem | 24.03 | 26.18 | Freeway |
| 47 | US 26 | Sunset | 53.62 | 73.75 | Freeway |
| 69 | OR 569 | Beltline | 4.37 | 13.00 | Freeway |
| 92 | US 30 | Lower Columbia River | 0.95 | 1.86 | Freeway |
| 144 | OR 217 | Beaverton-Tigard | 0.00 | 7.52 | Freeway |
| 162 | OR 22 | North Santiam | 1.68 | 13.74 | Freeway |
| 227 | OR 126 | Eugene-Springfield | 3.49 | 9.04 | Freeway |

CONTACT INFORMATION

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Priorities for Closing Open Median Sections on Interstates

February 2015



Statewide Priorities for Closing Open Median Sections on Interstates

| Interstates | | | | | | | |
|-------------|--------|-------|----------|------------------|-------------------|---------------|----------------|
| # | Region | Hwy | Priority | Approx. Start MP | Approx. Finish MP | Highway Miles | Median Width |
| 1 | 1 | I-205 | High | 0.49 | 2.85 | 2.36 | 120' |
| 2 | 1 | I-205 | High | 5.00 | 6.40 | 1.40 | 116' |
| 3 | 1 | I-205 | High | 13.50 | 15.80 | 2.30 | 77'-117' |
| 4 | 1 | I-205 | High | 21.95 | 22.21 | 0.26 | 58'-98' |
| 5 | 1 | I-205 | High | 24.34 | 24.42 | 0.08 | 82' |
| 6 | 1 | I-205 | High | 24.56 | 24.60 | 0.04 | 82' |
| 7 | 3 | I-5 | High | 12.20 | 27.00 | 14.80 | 75'-80' |
| 8 | 3 | I-5 | High | 30.80 | 31.50 | 0.70 | 50'-80' |
| 9 | 3 | I-5 | High | 31.50 | 33.50 | 2.00 | 80' |
| 10 | 3 | I-5 | High | 33.50 | 35.50 | 2.00 | 80' |
| 11 | 3 | I-5 | High | 43.80 | 44.40 | 0.60 | 75' |
| 12 | 3 | I-5 | High | 47.90 | 48.50 | 0.60 | 71' |
| 13 | 3 | I-5 | High | 61.70 | 67.00 | 5.30 | 55'-80' |
| 14 | 3 | I-5 | High | 80.40 | 80.60 | 0.20 | 84'-134' |
| 15 | 3 | I-5 | High | 83.00 | 84.50 | 1.50 | 78'-125' |
| 16 | 3 | I-5 | High | 99.60 | 100.00 | 0.40 | 75' |
| 17 | 3 | I-5 | High | 100.50 | 100.80 | 0.30 | 47'-75' |
| 18 | 3 | I-5 | High | 103.20 | 107.30 | 4.10 | 62'-76' |
| 19 | 3 | I-5 | High | 117.70 | 119.00 | 1.30 | 80' |
| 20 | 3 | I-5 | High | 144.80 | 146.90 | 2.10 | 45'-75' |
| 21 | 3 | I-5 | High | 147.60 | 147.90 | 0.30 | 44'-110' |
| 22 | 3 | I-5 | High | 150.50 | 150.70 | 0.20 | 42'-70' |
| 23 | 3 | I-5 | High | 150.70 | 153.50 | 2.80 | 42'-77' |
| 24 | 1 | I-84 | High | 17.80 | 20.20 | 2.40 | 74' |
| 25 | 4 | I-84 | High | 100.57 | 103.64 | 3.07 | 37'-80' |
| 26 | 4 | I-84 | High | 109.16 | 110.84 | 1.68 | 50'-77' |
| 27 | 4 | I-84 | High | 131.58 | 136.89 | 5.31 | 60'-77' |
| 28 | 4 | I-84 | High | 146.75 | 148.00 | 1.25 | 75'-85' |
| 29 | 4 | I-84 | High | 148.00 | 148.30 | 0.30 | 85'-210' |
| 30 | 4 | I-84 | High | 155.57 | 159.30 | 3.73 | 75'-80' |
| 31 | 5 | I-84 | High | 159.30 | 172.60 | 13.30 | 76' |
| 32 | 5 | I-84 | High | 207.00 | 209.90 | 2.90 | 76' |
| 33 | 5 | I-84 | High | 249.20 | 250.14 | 0.94 | 76' |
| 34 | 5 | I-84 | High | 306.60 | 307.50 | 0.90 | 55'-75' |
| 35 | 5 | I-84 | High | 320.00 | 321.10 | 1.10 | 76' |
| 36 | 5 | I-84 | High | 323.00 | 323.50 | 0.50 | 76' |
| 37 | 5 | I-84 | High | 346.10 | 353.10 | 7.00 | 76' |
| 38 | 5 | I-84 | High | 360.30 | 360.60 | 0.30 | Varies 45'-80' |
| 39 | 5 | I-84 | High | 360.60 | 362.70 | 2.10 | Variable |
| 40 | 5 | I-84 | High | 362.65 | 362.80 | 0.15 | varies 75'-80' |

| Interstates | | | | | | | |
|--------------------|--------|-------|----------------|------------------|-------------------|---------------|----------------|
| # | Region | Hwy | Priority | Approx. Start MP | Approx. Finish MP | Highway Miles | Median Width |
| 41 | 5 | I-84 | High | 370.80 | 377.90 | 7.10 | varies 45'-78' |
| | | | | Subtotals | | 99.67 | |
| 1 | 1 | I-205 | Lower Priority | 2.85 | 5.00 | 2.15 | 120' + |
| 2 | 3 | I-5 | Lower Priority | 0.80 | 3.30 | 2.50 | 135'-175' |
| 3 | 3 | I-5 | Lower Priority | 80.70 | 83.00 | 2.30 | 84'-125' |
| 4 | 3 | I-5 | Lower Priority | 84.50 | 88.20 | 3.70 | 100'-125' |
| 5 | 3 | I-5 | Lower Priority | 141.10 | 141.60 | 0.50 | 110'-125' |
| 6 | 5 | I-82 | Lower Priority | 0.40 | 10.00 | 9.60 | 106' |
| 7 | 4 | I-84 | Lower Priority | 95.13 | 95.41 | 0.28 | 520'-630' |
| 8 | 4 | I-84 | Lower Priority | 139.74 | 140.00 | 0.26 | 250' + |
| 9 | 4 | I-84 | Lower Priority | 140.38 | 144.87 | 4.49 | 280'-580' |
| 10 | 4 | I-84 | Lower Priority | 145.33 | 146.05 | 0.72 | 160'-380' |
| 11 | 4 | I-84 | Lower Priority | 146.42 | 146.75 | 0.33 | 95'-125' |
| 12 | 4 | I-84 | Lower Priority | 148.65 | 155.57 | 6.92 | 275' + |
| 13 | 5 | I-84 | Lower Priority | 172.60 | 207.00 | 34.40 | 106' |
| 14 | 5 | I-84 | Lower Priority | 209.90 | 217.73 | 7.83 | 106' |
| 15 | 5 | I-84 | Lower Priority | 229.30 | 239.70 | 10.40 | 76' |
| 16 | 5 | I-84 | Lower Priority | 259.60 | 269.60 | 10.00 | 106' |
| 17 | 5 | I-84 | Lower Priority | 272.10 | 304.80 | 32.70 | 106' |
| 18 | 5 | I-84 | Lower Priority | 308.90 | 316.30 | 7.40 | 76' |
| 19 | 5 | I-84 | Lower Priority | 321.10 | 323.00 | 1.90 | NA |
| 20 | 5 | I-84 | Lower Priority | 324.50 | 331.00 | 6.50 | 50' -76' |
| 21 | 5 | I-84 | Lower Priority | 362.80 | 370.80 | 8.00 | 106' |
| | | | | Subtotals | | 216.18 | |
| | | | | Totals | | 315.85 | |