

1 WISCONSIN DEPARTMENT OF NATURAL RESOURCES

2 DRAFT CONSERVATION PRACTICE STANDARD

3 TRACKOUT CONTROL PRACTICES

4 1057

5 DEFINITION

6 A practice or combination of practices used to prevent, reduce, or mitigate *trackout*<sup>1</sup> of sediment.

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8 PURPOSE

9 Land-disturbing construction activity generally creates conditions where a vehicle comes in contact with  
10 exposed soil, which is then transported off *site* and/or deposited onto streets and roadways. This  
11 sediment can then become a road hazard and be carried from streets into drainage infrastructure and  
12 discharged into waters of the state. The purpose of this standard is to identify common methods which  
13 may be used to prevent, reduce, and/or mitigate the tracking of sediment.

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15 CONDITIONS WHERE PRACTICE APPLIES

16 This standard applies where land-disturbing activity is likely to result in trackout.

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18 CRITERIA

19 General Criteria Applicable to All Practices

20 Be aware of applicable federal, state, and local laws, rules, regulations, or permit requirements governing  
21 the practice. This standard does not contain the text of federal, state, or local laws.

22 Install one of the following practices, or a combination of practices, to prevent, reduce, or mitigate tracking  
23 of sediment off site.

24 Trackout is best managed by implementing controls in the order below. These controls may be  
25 implemented in series where conditions warrant.

- 26 (1) Prevent trackout with stabilized work surfaces and reduced vehicle contact with soil,  
27 (2) Reduce trackout with stone tracking pad, manufactured trackout control devices, or tire washing,  
28 (3) Mitigate trackout with street cleaning.

29 Select a device capable of supporting the vehicle load. Provide an alternate stabilized egress for  
30 oversized or overweight loads if needed.

31 Provide stable approaches to and from the practice to avoid rutting.

32 Provide a stable driving surface from the practice to the off-site street or road.

33 Limit water use to prevent the discharge of sediment into drainage infrastructure.

34 Apply dust control measures when necessary to minimize generation of airborne dust while implementing  
35 trackout control practices.

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37 Criteria Applicable to Stabilized Work Surfaces

38 Install gravel, concrete, asphalt, manufactured mats, or other material in work areas and haul roads to  
39 prevent any contact of vehicles with exposed soils and standing water (Figure 1).

40 Install signage or fencing as needed to support intended use.

<sup>1</sup> Words in the standard that are shown in italics are described in the Definitions section. The words are italicized the first time they are used in the text.

41 This practice is applicable, but not limited, to the following areas:

- 42 (1) Contractor staging areas and lay-down areas where major grading has been completed and soil  
43 stockpiles are not being constructed or removed,
- 44 (2) Site trailer and construction employee parking areas,
- 45 (3) Private property access routes,
- 46 (4) Proposed parking areas,
- 47 (5) Redevelopment sites, or
- 48 (6) Short-term/low traffic access locations such as directional drilling pits.

49 Stabilized work surfaces may be used as a stand-alone practice if all vehicles are restricted to the  
50 stabilized surface and the surface is properly maintained.

51 If an administering authority determines that control is not being maintained, additional measures may be  
52 required.

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54 **Criteria Applicable to Stone Tracking Pads**

55 Install the stone tracking pad to ensure vehicles that drive over exposed soil exit across the full length of  
56 the pad (Figure 2).

57 Use hard, durable, angular stone or recycled concrete meeting the gradation in Table 1. Where this  
58 gradation is not available, meet the gradation in Wisconsin Department of Transportation (DOT) 2018  
59 Standard Specification, Section 312, Select Crushed Material. Use material substantially free from dirt,  
60 debris, steel, vegetable matter, and other deleterious material.

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Table 1. Gradation for stone tracking pads

Sieve Size	Percent by weight passing
3"	100
2-1/2"	90-100
1-1/2"	25-60
3/4"	0-20
3/8"	0-5

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63 Install the tracking pad across the full width of the access point, or restrict exiting traffic to a dedicated  
64 egress lane at least 12 feet wide at the top of the pad.

65 Ensure the tracking pad is at least 50 feet long. If a 50-foot pad length is not possible due to site  
66 constraints, install the maximum length practicable and supplement with additional practices as needed to  
67 prevent or reduce trackout.

68 Where warranted due to soil type or high groundwater, underlay the stone tracking pad with geotextile  
69 fabric to prevent migration of underlying soil into the stone. Select fabric type based on soil conditions and  
70 vehicle loading.

71 Place the aggregate in a layer at least 12 inches thick.

72 Divert surface flows away from tracking pads or convey flow under and/or around them by using culverts  
73 and swales. Direct runoff from tracking pads to sediment control practices.

74 Do not compact aggregate prior to use. Compaction, grouting, or other means of creating a smooth  
75 surface compromise the effectiveness of the tracking pad.

76 Remove stones lodged between the tires of dual wheel vehicles prior to leaving the construction site.

77

78 **Criteria Applicable to Manufactured Trackout Control Devices**

79 Install the manufactured trackout control device on a surface capable of supporting anticipated loads per  
80 manufacturer recommendations (Figure 3).

81 If the device is used as a stand-alone measure, situate it to ensure vehicles that drive over exposed soil  
82 exit across the full length of the device. Provide a minimum device length of 32 feet for stand-alone  
83 installations. Add length if needed to reduce trackout in adverse conditions.

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85 **Criteria Applicable to Tire Washing**

86 Select wash basin type based on project conditions and water availability. If a wash rack is used, select a  
87 rack capable of supporting the vehicle loading.

88 Locate the washing station on site in a stabilized area that drains into an effective sediment trapping or  
89 settling device.

90 Direct vehicles that drive over exposed soil to exit through the station.

91 This practice may be applicable, but not limited, to the following areas:

- 92 (1) Areas with prolonged periods or significant quantity of hauling on or off site, or  
93 (2) Sites which drain to a sensitive resource such as an Outstanding Resource Water or Exceptional  
94 Resource Water.

95 Install a tire washing station.

96 Perform tire washing per manufacturer's directions until the majority of sediment is removed from the  
97 tires.

98 Direct wash water to a sediment basin designed per the current Technical Standard 1064, Sediment  
99 Basin, or an equivalent device. Follow the current Technical Standard 1051, Water Application of  
100 Additives for Sediment Control, for flocculants used at the tire washing station. Return sediment collected  
101 in the sediment basin to the site or dispose of appropriately.

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103 **Criteria Applicable to Street/Pavement Cleaning**

104 Clean pavements and gutters until a broom-clean or shovel-clean condition is obtained. Repeat as  
105 needed to maintain public safety, and at the end of each work day.

106 Use available equipment or select equipment per the recommendations in Table 2.

107 Return sediment to the site or dispose of appropriately.

108

109 **CONSIDERATIONS**

110 (1) An extended stabilized work surface such as a 150-foot long gravel driveway within the site may  
111 be used as trackout control if sediment control is provided along the portions of driveways subject  
112 to sediment accumulation.

113 (2) Other methods of trackout control may be utilized if they do not generate dust or result in  
114 discharge of untreated water to drainage infrastructure or water resources.

115 (3) Manual removal of sediment from vehicles may be needed when working in heavy mud cannot be  
116 avoided.

117 (4) Implement traffic guidance (e.g., signs, barriers, fences, flags) to restrict exiting traffic to the

- 118 trackout device and prevent the circumvention of unfamiliar devices.
- 119 (5) Inform drivers of device weight limits and the location of alternate stabilized egress for oversized  
120 and/or overweight loads.
- 121 (6) Document in the erosion control plan whether stabilized impervious surfaces, such as staging  
122 areas, are temporary or permanent. Post-construction performance standards may apply in  
123 accordance with s. NR 151.121-128 or s. NR 151-421-249 Wis. Adm. Code.
- 124 (7) Vehicles traveling across trackout control practices should maintain a slow constant speed.
- 125 (8) In heavy clay soils, exceed the minimum length for stone tracking pads and manufactured  
126 trackout control devices or use these in series with other practices.
- 127 (9) During major hauling operations, implement additional trackout control practices to supplement  
128 primary control measures.
- 129 (10) All trackout control practices, especially stone tracking pads, generally need more maintenance  
130 during and immediately after completion of major hauling operations.
- 131 (11) If known soil and/or groundwater contamination is present on site as documented on the Bureau  
132 for Remediation and Redevelopment Tracking System (BRRTS on the Web) or has been  
133 identified through activities on site, then the potential for contamination transport should be  
134 assessed. If contamination is identified, any impacted soil or water should be characterized and  
135 stored, treated or disposed of in compliance with applicable standards and rules. If this is a new  
136 contaminant release, consult Wisconsin Department of Natural Resources (DNR) staff in the  
137 regional Remediation and Redevelopment Program.
- 138 (12) Methods of street cleaning vary based on project size, conditions, and availability of equipment.  
139 These methods require the contractor to follow OSHA standards for silica dust control and may  
140 require additional safeguards to meet current standards.

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142 Table 1. Street cleaning methods

Method	Effective for:						Notes
	Larger clumps	Wet	Dry	Sand	Clay	Minimizing dust	
Shovel and broom by hand	Yes	Yes	Yes	Yes	Yes	Yes	Good for incidental tracking from low traffic sites or minor accumulations.
Power angle broom	Yes	Yes	Yes, with dust control	Yes	Yes	Less effective, but better with dust control	Harder to control collection of debris.
Power pick up broom	Yes	Yes	Yes, with dust control	Yes	Yes	Yes, with dust control	Generally will not get close to edges without a gutter broom, which is less effective. Use in reverse to maximum effects. Better dust control than angle broom.
Traditional street sweeper	Yes	Yes	Yes, with dust control	Yes	Yes	Yes, with dust control	May not be cost effective for low traffic sites. Better dust control than an angle broom.
High efficiency sweeper (vacuum or regenerative air)	No	No	Yes	Yes	Dry – Yes Wet – No	Yes	May not be cost effective for low traffic sites. Presents difficulties with larger material. Best option for dust control.

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144 **PLANS AND SPECIFICATIONS**

145 Address the following in plans and specification:

- 146 (1) Location, materials, and dimensions of all stabilized work surfaces,  
 147 (2) Location of all points of egress with all trackout control practices shown,  
 148 (3) Material specifications conforming to this standard,  
 149 (4) Sequence or schedule for installation and removal of practices through different phases of  
 150 construction; clearly indicate if stabilized work surfaces are temporary or permanent,  
 151 (5) Standard drawings and installation, and  
 152 (6) Stabilization after removal.

153 Include the responsible party by name, or by title if not known (e.g., general contractor, land owner).

154 Include the frequency of inspection and maintenance in plans, standard detail drawings, or specifications.

155 Amend onsite erosion control plans to reflect any modifications during the life of the project, including  
 156 relocation or addition of site entrances and exits.

157

158 **OPERATION AND MAINTENANCE**159 Monitor all trackout control practices and nearby streets and roads at least daily during construction and  
 160 more frequently during heavy use.

161 Clean and maintain all practices as needed to prevent trackout.

162 Accumulation of sediment on off-site pavement near a site exit is an indication that street cleaning is  
 163 needed and on-site prevention and control measures need maintenance or are not adequate. Relocate or  
 164 add practices when construction egress locations are changed or when current control measures are not  
 165 reducing trackout.166 Clean streets and roads as needed to maintain traction, prevent further spread of sediment, and reduce  
 167 discharge to drainage infrastructure.168 Clean trackout control devices, mats, and other reusable materials prior to transport to a new site to  
 169 reduce the potential for spread of invasive species and prevent further spread of sediment.

170 Add signage, fencing, steel posts, and/or traffic barriers as needed to improve use of practices.

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172 **Stabilized Work Surface**173 Monitor stabilized work surface areas for soil deposits, standing water, and damage. Remove any soil  
 174 deposits daily through scraping and/or pavement cleaning, and repair damage as needed. Top dress  
 175 gravel surfaces as needed. Replace or repair any torn or damaged mats.

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177 **Stone Tracking Pad**

178 Monitor tracking pads for compaction, soil deposits, and mixing of underlying soils and stone layers.

179 Maintain a loosened, rough surface by scraping, loosening, or top-dressing with additional aggregate.

180 Replace geotextile and stone if less-intensive maintenance efforts fail to reestablish effectiveness.

181 Add stone as needed to maintain the minimum pad thickness.

182 Replace damaged or crushed culverts under tracking pad.

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184 **Manufactured Trackout Control Device**

- 185 Monitor and maintain devices to prevent shifting, rutting of adjacent surfaces, and structural failure.
- 186 Remove accumulated sediment as required to maintain the function of the device.
- 187 Replace missing or damaged elements such as bars or anchors, and remove and reset devices if they  
188 shift during use.
- 189 Fill ruts in adjacent surfaces with gravel or paving materials. Maintain a stable surface between the device  
190 and street or road.

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192 **Tire Washing**

- 193 Monitor tire washing station for sediment accumulation, clogged hoses, appropriate water levels, and  
194 effectiveness.
- 195 Remove accumulated sediment.
- 196 Replenish flocculant as needed, and replace or replenish water as needed.
- 197 Maintain hoses to minimize clogging or freezing.
- 198 For manufactured tire washing stations, maintain per manufacturer's recommendations.
- 199 Modify operations as needed during cold weather to prevent formation of ice-hazards on roadways.

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201 **DEFINITIONS**

- 202 *Broom-clean:* A pavement condition where no measurable material is collected when a push broom is  
203 pushed lightly across the surface. This is generally applicable in dry conditions.
- 204 *Drainage infrastructure:* Features present above or below grade for the purpose of collecting and  
205 transmitting storm water. These features include, but are not limited to, ditches, storm sewers, drainage  
206 inlets, flumes, and manholes.
- 207 *Manufactured trackout control device:* A device installed and maintained at an egress location for  
208 reducing trackout of sediments through flexing and vibrating tires.
- 209 *Trackout:* The relocation of material from its intended location to offsite surfaces by vehicles.
- 210 *Shovel-clean:* A pavement condition where no measurable material is collected when a flat-edged shovel  
211 is pushed across the surface. This is generally applicable in wet conditions.
- 212 *Site:* The area within the construction limits. Construction limits may change over the course of a project.

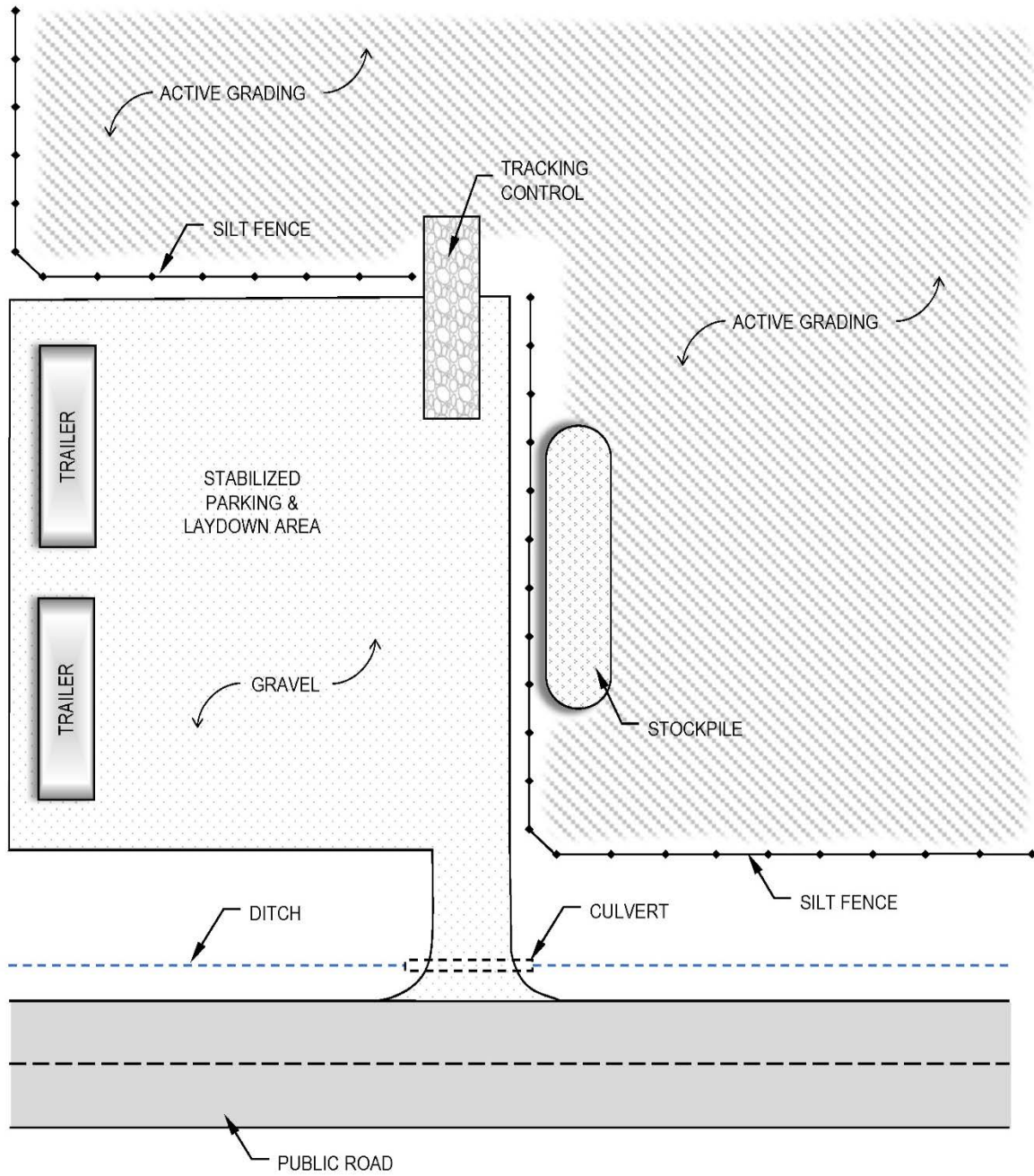
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214 **REFERENCES**

- 215 Wisconsin Council on Forestry, Invasive Species Best Management Practices for Transportation and  
216 Utility Rights-of-Way, <https://councilonforestry.wi.gov/Documents/InvasiveSpecies/ROW-Manual.pdf>
- 217 Wisconsin DNR, Outstanding and Exceptional Resource Waters,  
218 <http://dnr.wi.gov/topic/SurfaceWater/orwerw.html>
- 219 Wisconsin DNR, Construction Conservation Practice Standards,  
220 [http://dnr.wi.gov/topic/stormwater/standards/const\\_standards.html](http://dnr.wi.gov/topic/stormwater/standards/const_standards.html)
- 221 Wisconsin DNR, Post-Construction Conservation Practice Standards,  
222 [http://dnr.wi.gov/topic/stormwater/standards/postconst\\_standards.html](http://dnr.wi.gov/topic/stormwater/standards/postconst_standards.html)
- 223 Wisconsin Department of Transportation, *Select Crushed Material*, 2018 Standard Specification, Section  
224 312, <http://wisconsin.dot.gov/rdwy/stndspec/ss-03-12.pdf>

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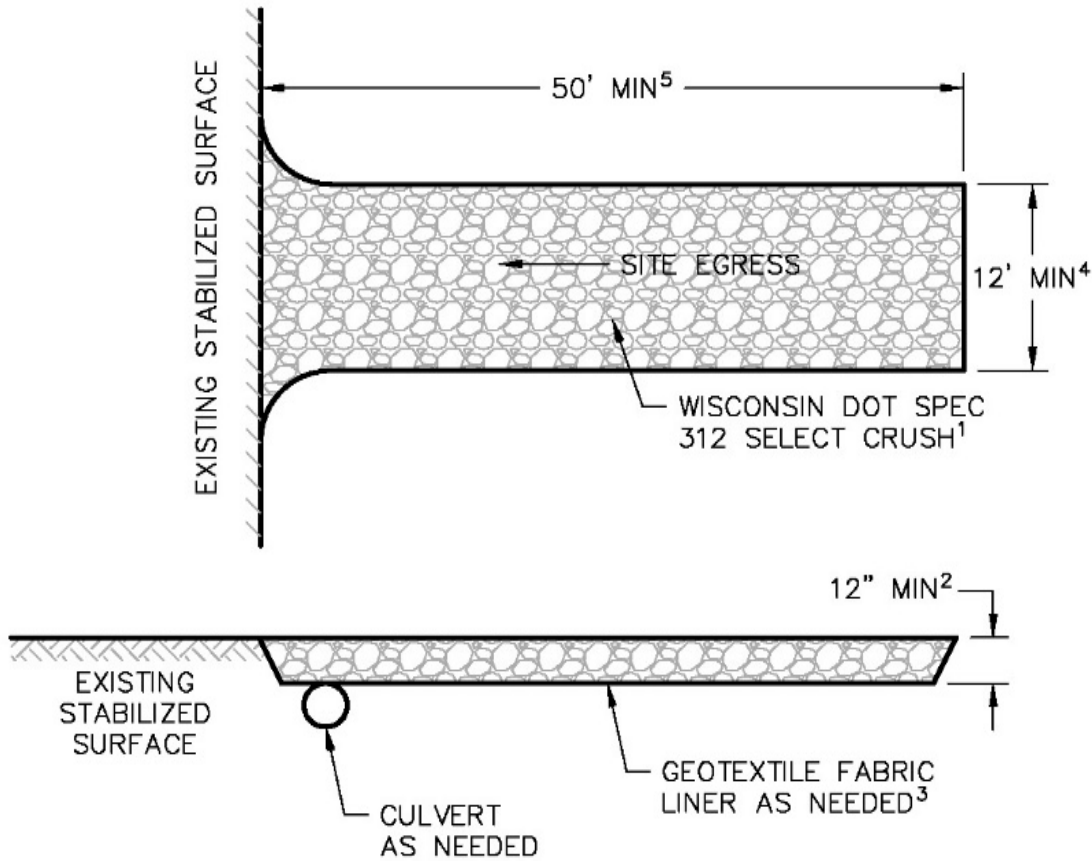
Figure 1:  
Example of a common setup that can be used to implement a stabilized surface area.



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Figure 2:  
Stone tracking pad detail.



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235 Note 1 Use hard, durable, angular stone or recycled concrete meeting the gradation in Table 1. Where this  
236 gradation is not available, meet the gradation in Wisconsin Department of Transportation (DOT) 2018  
237 Standard Specification, Section 312, Select Crushed Material.

238 Note 2 Slope the stone tracking pad in a manner to direct runoff to an approved treatment practice.

239 Note 3 Select fabric type based on soil conditions and vehicles loading.

240 Note 4 Install tracking pad across full width of the access point, or restrict existing traffic to a dedicated  
241 egress lane at least 12 feet wide across the top of the pad.

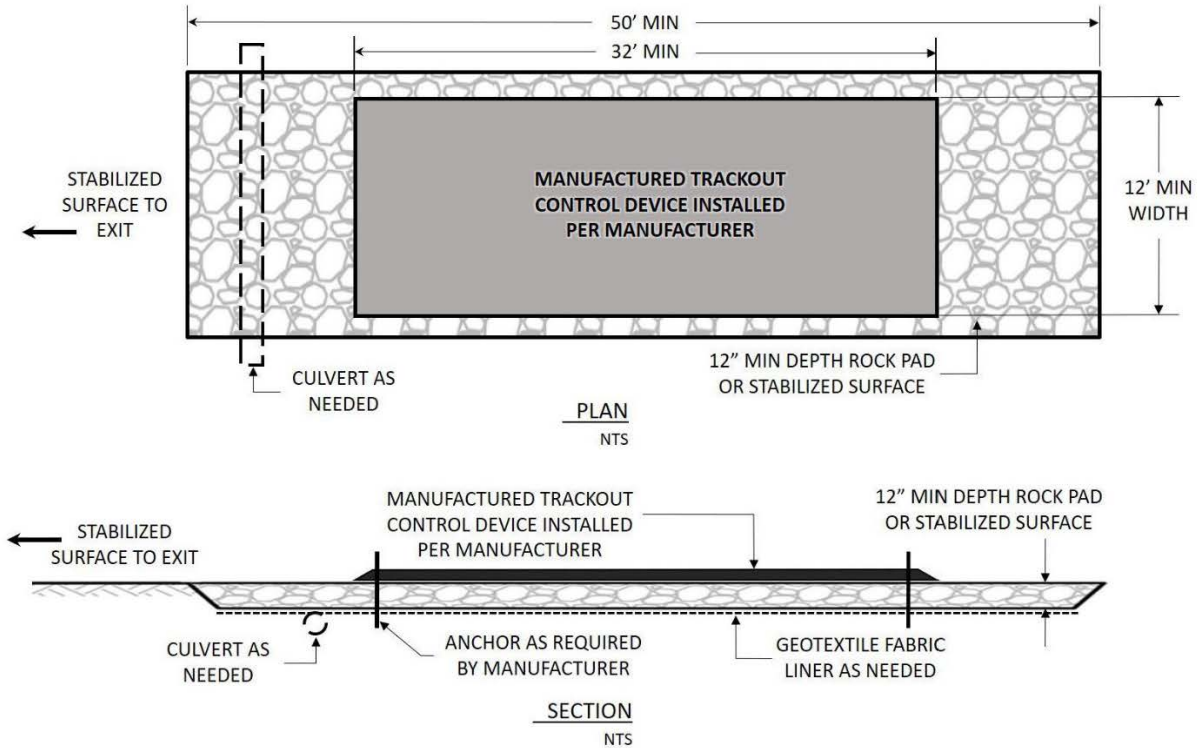
242 Note 5 If a 50' pad length is not possible due to site geometry, install the maximum length practicable and  
243 supplement with additional practices as needed.

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Figure 3:  
Example manufactured trackout control device detail.



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Note 1 This detail is provided as an example. Comply with manufacturer's specifications while also meeting the minimum manufactured tracking pad length and width described in this technical standard.

Note 2 Install such that runoff flows to an approved treatment practice.

Note 4 A thinner stone layer or other stable surface may be acceptable such that rutting is prevented as vehicles mount or dismount from the manufactured trackout control device.

Note 5 Select fabric type based on soil conditions and vehicles loading.

Note 6 Direct all exiting vehicles over manufactured trackout control device. Stone tracking pad installation across remaining access width is recommended. A 12' minimum can be used when exiting traffic is restricted to a dedicated egress lane.

Note 7 If minimum installation length is not possible due to site geometry, install the maximum length practicable and supplement with additional practices as needed.

Note 7 Accommodate exiting vehicles in excess of manufactured trackout control device weight capacity with other treatment practices.