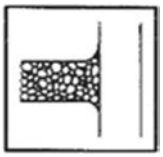
Final Draft of Standard

Formatted/Clean Version



6.06 TEMPORARY CONSTRUCTION ENTRANCE/EXIT

Definition

An area or pad located at points where vehicles enter and leave a construction site typically surfaced with stone, riprap, coarse ground wood mulch, wooden logging mats, synthetic/composite products, or other ground stabilizing materials.

Purpose

To provide an area where equipment and vehicles can remove mud, soil, and debris from tires to avoid deposition on the public road, to control erosion from surface runoff, and to help control dust.

Conditions Where Practice Applies

Wherever vehicles and equipment will be entering and leaving a construction site and moving directly onto a public road or other paved off-site area. Construction plans should limit traffic to properly constructed entrances and exits.

Design Criteria

Construction entrances should be 12-ft minimum per lane of traffic. Non-synthetic construction entrance/exits should have geotextile underlayment.

Aggregate or mulch thickness should be a minimum of 6-in. A dedicated stockpile of clean material should be available on-site for immediate use to maintain the measure.

Location – Locate construction entrances and exits to limit sediment from leaving the site and to provide for maximum utility by all construction vehicles. Avoid steep grades and entrances at curves in public roads.

Dimensions of Entrance/Exit Pad -

Width – A 12ft-minimum or full width at all points of the vehicular entrance and exit area, whichever is greater.

Length – Apply stabilization techniques at lengths necessary to keep mud and debris from entering the paved roadway (Figure 6.06a). Lengths of stabilized roadway entrances and exits may vary by size of the construction site, percent

cover applied to the site access roadway, stabilization material selected, weight and frequency of traffic, and soil types.

Riprap and Stone Pads, Wood Fiber, Wooden Mats, and Synthetic Mats - Each option should achieve the purpose of this standard. Some standard starting points include:

Riprap Pads:

Aggregate Size – Use 2 - 3 inch stone. NCDOT Class A may be suitable for finer textured soils
Length – 50-ft minimum. More stone may be required to minimize trackout on paved surfaces.

Stone Pads:

Aggregate Size – Use NCDOT #5 or #57 stone.

Length – 25-ft minimum for residential or small linear utility sites.

Wood chips:

Material sizes may vary, but 3-inches or larger is preferred.

Wood Mats:

A minimum of ¼ inch construction, but various thicknesses may be appropriate.

Synthetic Mats:

Various thicknesses may be appropriate.

Wash Racks and Wheel Washes - If two instances of debris deposited onto the roadway are cited as a safety concern, a wash rack or wheel wash may be required. Otherwise, if conditions at the site are such that soil and other debris are not removed from exiting vehicles, the vehicles should be washed prior to accessing the public roadway. Soil and debris removal by washing should be conducted in a stabilized area that drains into a sediment trap or other suitable collection area or self-contained to filter water for reuse. A pressure washer and wash rack may be used to make washing more convenient and effective. A manufactured wheel wash installed and operated according to manufacturer's specifications is also an acceptable alternative. The roadway leading to and from wash racks or wheel washes shall be stabilized with appropriate materials. Drain space under wash rack shall be kept open. Damage to wash racks or wheel washes shall be repaired prior to further use.

Prefabricated Pad - Prefabricated pads may be used instead of or in conjunction with stone construction entrances provided they are installed according to manufacturer's recommendations and a sufficient number of pads or stone are installed to provide for a minimum of four tire revolutions while on the pad. More pads may be needed depending

on site conditions. Accumulated materials should be cleaned from the pads daily (more often if necessary) and disposed in the manner specified by the erosion and sediment control plan.

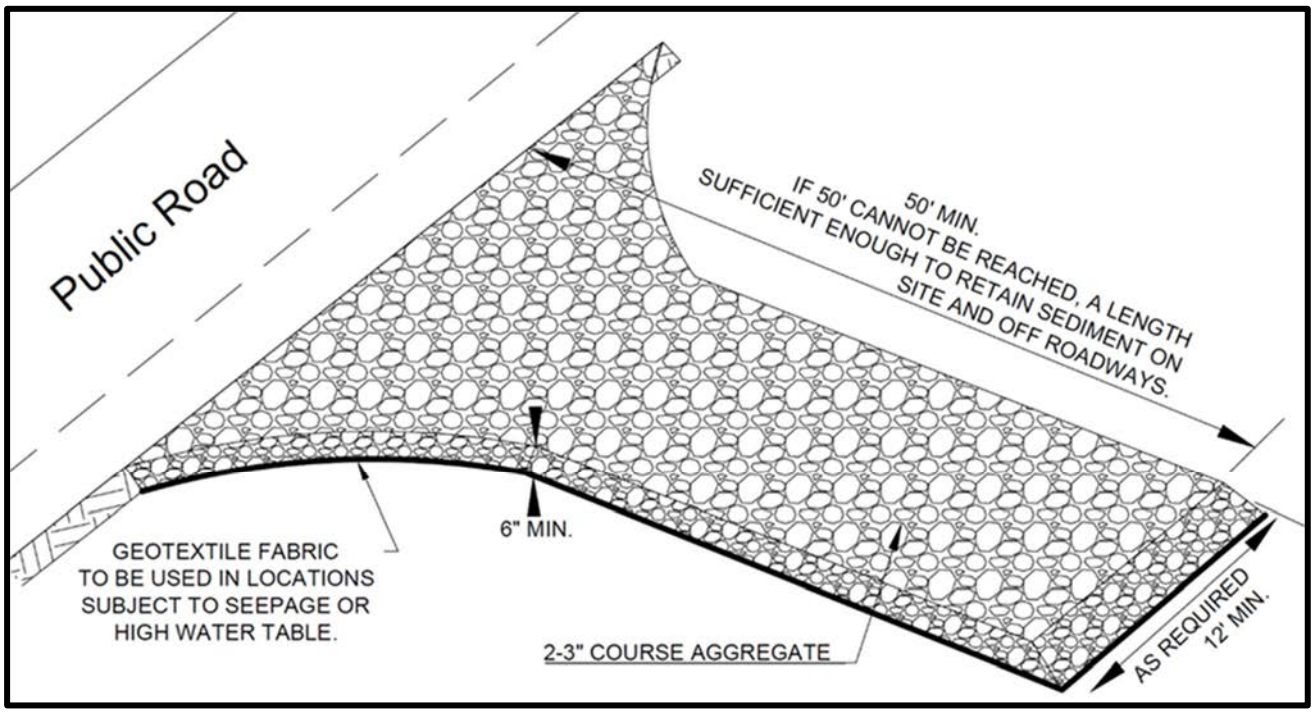


***Figure 6.06a**, Typical stone entrance/exit pad (modified from VA SWCC)*

***Figure 6.06b**, Stone Entrance/Exit keeps sediment from leaving the construction site*

Construction Specifications

1. Clear the entrance and exit area of all vegetation, roots, and other objectionable material and properly grade it.
2. Place the stone or other stabilizing material to the specific grade and dimensions shown on the plans, and smooth it.
3. Provide drainage from construction entrance area to carry runoff to a sediment trap or other suitable collection area.
4. Divert construction site runoff away from the construction entrance area to nearby erosion and sediment control measures. Do not allow construction sites to outlet runoff through entrances/exits.
5. When appropriate to do so, use geotextile fabrics underneath construction entrance material to improve stability of the foundation, especially in locations subject to seepage or a high-water table.

Maintenance

Maintain the pad or entrance in a condition to prevent mud or sediment from leaving the construction site. If any objectionable material—including sediment—is deposited onto paved roadways from the construction site, remove by manual or mechanical means and return the deposits back to the construction site immediately. Periodic topdressing with stone or coarse ground wood mulch may be needed to prevent debris deposits onto the road, a stockpile shall be maintained on site to quickly address compromised entrances/exits. After each rainfall, inspect any structure used to trap sediment and clean it out as necessary. In circumstances of high-traffic and/or wet conditions, routinely inspect the entrance/exit for sediment and debris removal effectiveness as needed.

References

Runoff Conveyance Measures
6.30, Grass-lined Channels

Sediment Traps and Barriers
6.60, Temporary Sediment Trap

Pennsylvania Erosion and Sediment Pollution Control Program Manual. March 2012. Technical Guidance Number 363-2134-008. pp.13-18

CTC Edits to Original Standard

Temporary ~~Gravel~~ Construction Entrance/Exit ~~- 9/8/21~~

Definition – An ~~graveled~~ area or pad located at points where vehicles enter and leave a construction site typically surfaced with ~~made of gravel~~stone, riprap, coarse ground wood mulch, wooden logging mats~~bridgemats~~, ~~or~~ synthetic/composite products, or ~~other ground stabilizing materials~~ other devices removing sediment~~.~~.

Purpose – To provide an ~~buffer~~ area where equipment and vehicles can ~~drop~~remove ~~their~~ mud, ~~and sediment~~oil, and debris from tires to ~~avoid transporting it onto public roads~~avoid deposition on the public road, to control erosion from surface runoff, and to help control dust.

Conditions Where Practice Applies – Wherever vehicles and equipment~~traffic~~ will be entering and leaving a construction site and moving directly onto a public road or other paved off-site area. Construction plans should limit traffic to properly constructed entrances and exits.~~.~~

Design Criteria – ~~Construction entrances should be 12-ft minimum per lane of traffic. Aggregate or mulch thickness should be a minimum of 6-in. A dedicated stockpile of clean material should be available on-site for immediate use to maintain the measure.~~

Location – Locate construction entrances and exits to limit sediment from leaving the site and to provide for maximum utility by all construction vehicles. Avoid steep grades and entrances at curves in public roads.

Dimensions of entrance/exit pad

~~Thickness: 6 inches minimum~~

Width – a 12ft-minimum or full width at all points of the vehicular entrance and exit area, whichever is greater.

Length – ~~site access roadroadway~~ Apply stabilization techniques at lengths necessary to keep mud and debris from entering the paved roadway (Figure 6.06a). Lengths of stabilized roadway entrances and exits may vary by size of the construction site, percent cover applied to the site access roadroadway, stabilization material selected, weight and frequency of traffic, and soil types. ~~A 50-ft minimum is a standard starting point for sites with coarser textured soils. A 100-ft minimum is a standard starting point for sites with finer textured soils. A 25-ft minimum is a standard starting point for residential or small linear utility sites.~~

Commented [LJ1]: Lengths of stabilized roadway entrances and exits may vary by size of the construction site, percent cover applied to the site access roadroadway, stabilization material selected, weight and frequency of traffic, and soil types.

~~**Riprap and Gravel Pads**~~**, Riprap and Stone Pads, Wood Fiber, Wooden Mats, and Synthetic Mats**

Each option should achieve the purpose of this standard. Some standard starting points include:

Riprap Pads - Aggregate Size – Use 2 – 3 inch washed stone. ~~or~~ NCDOT Class A may be suitable ~~,~~ for ~~—~~finer textured soils~~.~~ Length – 50-ft minimum. ~~m~~More stone may be required to minimize trackout on paved surfaces,

~~Gravel~~Stone Pads – Aggregate Size – NCDOT #5 or #57 stone, Length – 25-ft minimum for residential or small linear utility sites

Commented [LJ2]: Stone

~~Coarse Ground Wood Mulch~~

~~–~~ Wood chips~~fiber~~ – sizes~~,~~ may vary~~ies~~, but ~~is predominately~~ 3-inches or larger is preferred

Wood Mats – a minimum of ¼ inch construction, but various thicknesses may be appropriate

Synthetic Mats – various thicknesses may be appropriate

~~**Dimensions of gravel pad –**~~

~~Thickness: 6 inches minimum~~

~~Width – 12ft minimum or full width at all points of the vehicular entrance and exit area, whichever is greater~~

~~Length – 50 feet minimum. Lengths may vary by construction site, material selection and soil types. In general, 50 ft minimum for larger sites, 25 ft minimum for residential/small linear utility sites. Length of entrance material should be increased with finer textured soils.~~

~~**Location** – Locate construction entrances and exits to limit sediment from leaving the site and to provide for maximum utility by all construction vehicles (Figure 6.06a). Avoid steep grades, and entrances at curves in public roads.~~

Wash R~~r~~acks and Wheel Washes - ~~Washing~~ ~~vehicles prior to accessing the public roadway –~~ If two instances of debris deposited onto the roadway are cited as a safety concern, a wash rack or wheel wash may be required. Otherwise, if ~~I~~f conditions at the site are such that ~~most of the~~ soil and other debris~~mud and sediment~~ are not removed from exiting~~y~~ vehicles ~~traveling over the gravel~~ ~~construction entrance material~~, the vehicles should be washed prior to accessing the public roadway~~tires should be washed~~. Soil and debris removal~~e done~~ by ~~W~~washing should be conducted in a stabilized area ~~done on an area stabilized with crushed stone~~ that drains into a sediment trap or other suitable collection~~disposal~~ area or self-contained to filter water for reuse. ~~Drain space under wash rack shall be kept open at all times.~~ A pressure washer and wash rack may ~~also~~ be used to make washing more convenient and effective. A manufactured wheel wash installed and operated according to manufacturer's specifications is also an acceptable alternative. The roadway leading to and from a wash racks or wheel washes shall be stabilized with appropriate materials. Drain space under wash rack shall be kept open. Damage to wash racks or wheel washes shall be repaired prior to further use.

Prefabricated~~RUMBLE~~ Pad

Prefabricated ~~constructed rumble~~ pads may be used instead of or in conjunction with stone construction entrances provided they are installed according to manufacturer's recommendations and a sufficient number of pads or stone are installed to provide for a minimum of four tire revolutions while on the pad. More pads may be needed depending on site conditions. Accumulated materials should be cleaned from the pads daily (more often if necessary) and disposed in the manner specified by the erosion and sediment control plan. ~~Rumble pads are not ABACT.~~

Construction Specifications –

1. Clear the entrance and exit area of all vegetation, roots, and other objectionable material and properly grade it.

Commented [LJ3]: chips, fiber, mulch?

Commented [LJ4]: if multiple failures?

Commented [LJ5R4]: safety concern

Commented [LJ6R4]: Required for instances where a serious safety concern is immanent

2. Place the ~~gravel~~stone or other stabilizing material to the specific ~~to the specific~~ grade and dimensions shown on the plans, and smooth it.
3. Provide drainage from construction entrance area to carry runoff~~water~~ to a sediment trap or other suitable ~~outlet~~ collection area.
~~3.~~4. Divert ~~upstream~~ construction site runoff away from the construction entrance area to nearby erosion and sediment control measures. Do not allow construction sites to outlet runoff through entrances/exits.
~~4.~~5. When appropriate to do so, u~~U~~se geotextile fabrics underneath construction entrance material to ~~because they~~ improve stability of the foundation, especially in locations subject to seepage or high water table.

Maintenance – Maintain the ~~gravel~~ pad or entrance in a condition to prevent mud or sediment from leaving the construction site. If any objectionable material—including sediment—is deposited onto paved roadways from the construction site, remove and return the deposits back to the construction site immediately. ~~This may require p~~Periodic top-dressing with ~~2-inch~~ stone or coarse ground wood mulch may be needed to prevent debris deposits onto the road ~~maintain effectiveness, as applicable~~, a stockpile shall be maintained on site to quickly address compromised entrances/exits~~for this purpose~~. ~~excessive amounts of is are being thestabilizing materialrock construction entrance or coarse ground wood mulch at least ft foot increments until condition is alleviated~~ After each rainfall, inspect any structure used to trap sediment and clean it out as necessary. In circumstances of high-traffic and/or wet conditions, routinely inspect the entrance for sediment and debris removal effectiveness as needed ~~Immediately remove all objectionable materials spilled, washed, or tracked onto public roadways.~~

References

Runoff Conveyance Measures
6.30, Grass-lined Channels

Sediment Traps and Barriers
6.60, Temporary Sediment Trap

Pennsylvania Erosion and Sediment Pollution Control Program Manual. March 2012. Technical Guidance Number 363-2134-008. pp.13-18

Commented [LJ7]: Used PA manual to update this section

Commented [LJ8]: prevent soil deposits onto paved roadways.?

Commented [LJ9]: A stockpile of rock or other stabilizing material should be maintained on site to quickly address compromised entrances/exits.

Commented [LJ10]: make sure not conflicting with earlier text

DEMLR Comments to CTC Edits

Revise & Resubmit

Temporary Construction Entrance/Exit

Definition – An area or pad located at points where vehicles enter and leave a construction site typically surfaced with stone, riprap, coarse ground wood mulch, wooden logging mats, synthetic/composite products, or other ground stabilizing materials.

Purpose – To provide an area where equipment and vehicles can remove mud, soil, and debris from tires to avoid deposition on the public road, to control erosion from surface runoff, and to help control dust.

Conditions Where Practice Applies – Wherever vehicles and equipment will be entering and leaving a construction site and moving directly onto a public road or other paved off-site area. Construction plans should limit traffic to properly constructed entrances and exits.

Design Criteria – Construction entrances should be 12-ft minimum per lane of traffic. Non-synthetic construction entrance/exits should have geotextile underlayment. Aggregate or mulch thickness should be a minimum of 6 inches. A dedicated stockpile of clean material should be available on-site for immediate use to maintain the measure.

Location – Locate construction entrances and exits to limit sediment from leaving the site and to provide for maximum utility by all construction vehicles. Avoid steep grades and entrances at curves in public roads.

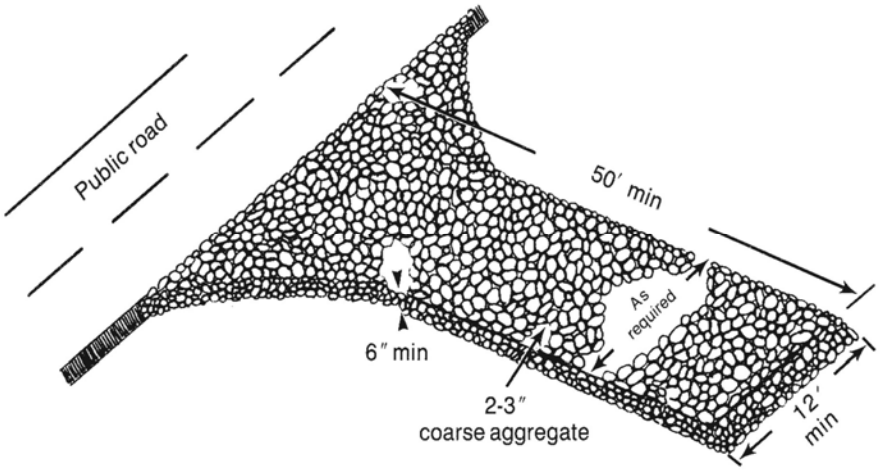


Figure 6.06a ~~Gravel~~ Stone entrance/exit keeps sediment from leaving the construction site (modified from Va SWCC).

Dimensions of entrance/exit pad

Width – a 12-ft minimum or full width at all points of the vehicular entrance and exit area, whichever is greater.

Length – Apply stabilization techniques at lengths necessary to keep mud and debris from entering the paved roadway (Figure 6.06a). Lengths of stabilized roadway entrances and exits may vary by size of the construction site, percent cover applied to the site access roadway, stabilization material selected, weight and frequency of traffic, and soil types. **Riprap and Stone Pads, Wood Fiber, Wooden Mats, and Synthetic Mats Each option should achieve the purpose of this standard. Some standard starting points include:**

Commented [CJ1]: Format appropriately

Riprap Pads ~~–~~

Aggregate Size – ~~Use~~ 2 – 3 inch washed stone. NCDOT Class A may be suitable for finer textured soils.

Length – 50-ft minimum. More stone may be required to minimize trackout on paved surfaces.~~,~~

Stone Pads

~~–~~Aggregate Size – NCDOT #5 or #57 stone

~~,~~Length – 25-ft minimum for residential or small linear utility sites

Wood chips – sizes may vary, but 3-inches or larger is preferred

Wood Mats – a minimum of ¼ inch construction, but various thicknesses may be appropriate

Synthetic Mats – various thicknesses may be appropriate

Wash Racks and Wheel Washes - If ~~two instances~~multiple instances of debris deposited onto the roadway are cited as a safety concern, a wash rack or wheel wash may be required. Otherwise, if conditions at the site are such that soil and other debris are not removed from exiting vehicles, the vehicles should be washed prior to accessing the public roadway. Soil and debris removal by washing should be conducted in a stabilized area that drains into a sediment trap or other suitable collection area or self-contained to filter water for reuse. A pressure washer and wash rack may be used to make washing more convenient and effective. A manufactured wheel wash installed and operated according to manufacturer's specifications is also an acceptable alternative. The roadway leading to and from wash racks or wheel washes shall be stabilized with appropriate materials. The drain space under wash rack shall be kept open. Damage to wash racks or wheel washes shall be repaired prior to further use.

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Construction Specifications

1. Clear the entrance and exit area of all vegetation, roots, and other objectionable material and properly grade it.

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3. Provide drainage from construction entrance area to carry runoff to a sediment trap or other suitable collection area.
4. Divert construction site runoff away from the construction entrance area to nearby erosion and sediment control measures. Do not allow construction sites to outlet runoff through entrances/exits.
5. When appropriate to do so, use geotextile fabrics underneath construction entrance material to improve stability of the foundation, especially in locations subject to seepage or high-water table.

Maintenance – Maintain the- pad or entrance in a condition to prevent mud or sediment from leaving the construction site. If any objectionable material—including sediment—is deposited onto paved roadways from the construction site, remove by manual or mechanical means and return the deposits back to the construction site immediately. Periodic topdressing with stone or coarse ground wood mulch may be needed to prevent debris deposits onto the road. A stockpile shall be maintained on site to quickly address compromised entrances/exits. After each rainfall, inspect any structure used to trap sediment and clean it out as necessary. In circumstances of high-traffic and/or wet conditions, routinely inspect the entrance for sediment and debris removal effectiveness as needed.

Commented [CJ2]: What about material used to construct the entrance/exit? Like dislodged rip-rap, stone, or wood chips in the roadway. Is that considered objectionable?

References

Runoff Conveyance Measures
6.30, Grass-lined Channels

Sediment Traps and Barriers
6.60, Temporary Sediment Trap

_____Pennsylvania Erosion and Sediment Pollution Control Program Manual. March 2012. Technical Guidance Number 363-2134-008. pp.13-18