4.5-h VEHICLE INGRESS EGRESS MANAGEMENT

Alternative Names: Stabilized Construction Entrance/Exit, Track-off Control, Vehicle Tracking

BMP DESIGN APPROACH
■ Pollutant Source Control
☐ Hydrologic Source Control
☐ Stormwater Treatment
SCALE OF APPLICATION
■ All SFR and MFR < 1 acre
■ MFR 1-5 Acre and CICU < 5 acres
■ MFR and CICU > 5 acres and all WQIPs
TYPE OF APPLICATION
■ Temporary
☐ Permanent

DESCRIPTION

Vehicles traveling in and out of construction sites can result in sediment being transferred off the project area onto roads and driveways. This fugitive sediment can be washed into stormwater systems and SEZs. Proper ingress/egress management will help prevent sediment attached to wheels and equipment from leaving the site.

APPLICABILITY

Suitable for all construction sites where vehicles and equipment will leave the construction site and potentially track sediment off site.

Advantages

- Minimizes the amount of sediment leaving the project area.
- Can improve both the appearance and the public perception of the construction project.

Disadvantages

- Has the potential to slow the flow of traffic entering/exiting the construction site.
- Vehicular washing stations may require a large supply of water to be available on site, which may impose an additional cost.
- Vehicular washing stations require proper disposal of wastewater.
- Some construction ingress/egress management techniques may be expensive to install and maintain.

DESIGN SPECIFICATIONS

- Install vehicle tracking controls prior to any site activity.
- Limit construction entrances and exits to one, or as few as practical.
- Locate temporary construction entrances and exits where permanent driveways and parking areas are planned. Pave roads or driveways before construction begins, to limit extent of bare soil over which vehicles and equipment travel. Pave all driveways and roadways prior to the end of the grading season (October 15).
- Ensure that vehicles traveling in and out of construction sites are guided with clearly visible physical barriers.
- Situate ingress/egress points on existing level ground where possible, to reduce any runoff from exiting the project area.
- If multiple vehicles are expected to enter/exit the project area at the same time, design the entrance/exit wide enough for two vehicles to pass simultaneously. When practical, design the entrance/exit with a flared transition onto the right-of-way.

- Limit speed of vehicles entering or exiting a construction site to 5 mph or less, to minimize dust.

INSTALLATION

For vehicles and equipment that will visit a construction site and exit onto pavement or public roadways, use one or more of the following practices: Communication with all vehicles entering a construction site will be required to ensure implementation of these sediment control measures.

Option 1: Gravel Strip

- Employ gravel strips for areas where vehicles may track sediment onto pavement.
- Design the gravel strip to be as long as the site can accommodate and at least 20-feet wide.
- Construct gravel strips with angular, clean washed gravel 3 to 6 inches in diameter. Rock should be larger as equipment size increases.
- Place geotextile fabric underneath the gravel, to capture the sediments being intercepted.
- If small amounts of sediment are still found to be leaving the project area, then daily manual sweeping of the connected roadway may be appropriate.

Option 2: Rumble Strip

- Use in conjunction with the gravel strip, as a redundant measure to increase effectiveness.
- For rumble strips, employ grooved metal grates, or large stone areas that remove sediments by agitation.
- Install 20-foot long rumble strips with sections of gravel before and after to equal at least 50 feet in total length.
- If small amounts of sediment are still found to be leaving the project area, then daily manual sweeping of the roadway may be appropriate.

Option 3: Street Sweeping or Street Vacuuming

- Consider street sweeping or street vacuuming if vehicles entering paved roadways will track only a small amount of sediment off-site. If larger amounts of sediment are tracked off-site, consider using street sweeping or vacuuming in conjunction with the other methods listed.
- Street sweeping/vacuuming may not be a feasible method for small construction sites.
- If possible, re-use swept or vacuumed sediment on site.
- Refer to Section 4.5-o for more details regarding Sweeping practices.

Option 4: Vehicle Wash Station

- For situations where there is a high risk that vehicles will track large amounts of sediment onto pavement, consider installing a vehicle wash station.
- Consider using vehicle wash stations in conjunction with gravel strips.

- Design and construct vehicle wash stations to accommodate anticipated traffic, vehicle weights, and vehicle lengths.
- Construct proper drainage to convey wash runoff to an adequately sized water and sediment trapping device.
- Recycle wash water to conserve water.
- Install gravel strips between the vehicle wash station and the pavement or right-of-way to minimize fugitive sediment.
- Use automatic shut-off nozzles at wash stations to prevent the water from being left on.
- Refer to Section 4.2-s for more details regarding Vehicle Washing practices.

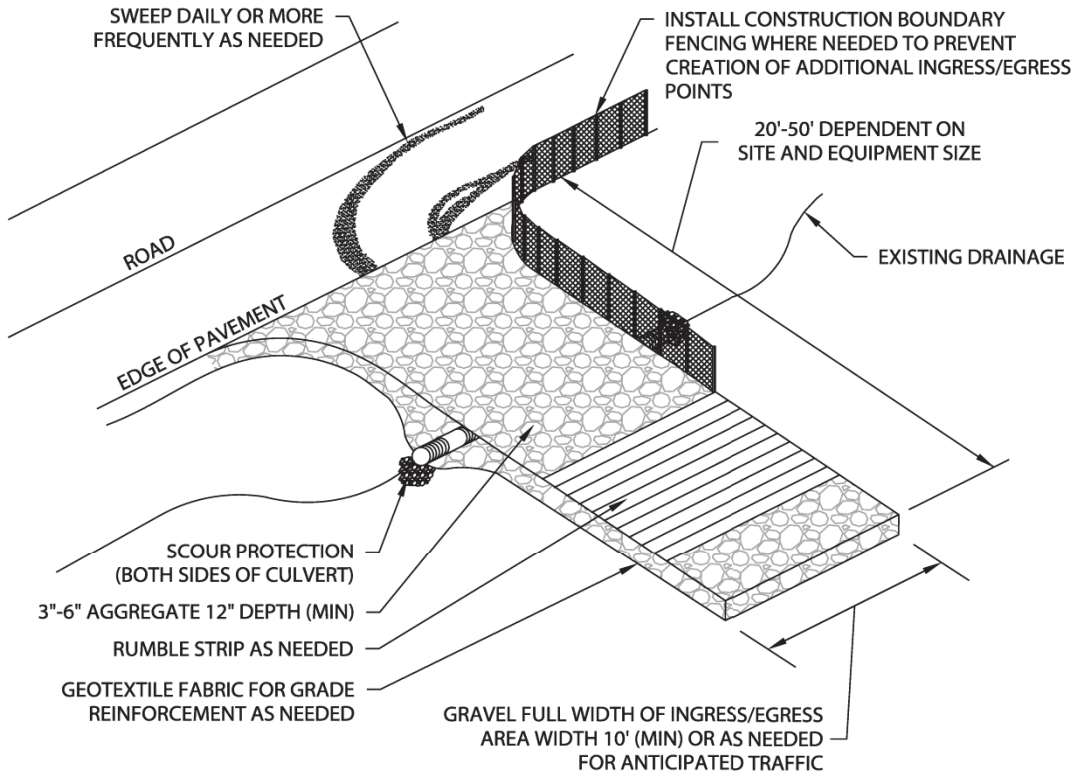
Option 5: Landing Mat

- Place materials such as metal, wood, or iron grates on the ground for vehicles to travel on.

INSPECTION AND MAINTENANCE

- Must be inspected and maintained on a daily basis.
- If significant amounts of sediment are still being found off site, review, redesign, or reinstall the selected practice.
- Inspect construction entrances/exits daily to ensure that the measures used remain effective. Repair and/or replace as needed.
- Remove accumulated sediment from wash stations as needed to maintain system performance.
- Inspect gravel strips for sediment and debris, and clean and/or replace as needed.
- Remove all vehicle tracking control devices, including gravel and geotextile fabrics, at the completion of construction.
- If construction foot traffic is causing sediment tracking off-site, install boot scraper stations at all foot traffic entrances/exits.

Vehicle Tracking Control Figure



NOTES:

1. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE USED AT ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS.
2. THE AGGREGATE SHALL BE 3" - 6" CRUSHED ROCK.
3. THE ENTRANCE SHALL BE PROPERLY GRADED TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.
4. THE ENTRANCE SHALL BE CONSTRUCTED ON LEVEL GROUND, WHERE FEASIBLE, AND LOCATED WHERE PERMANENT DRIVEWAY OR PARKING AREAS ARE PLANNED.
5. ADDITIONAL STONE SHALL BE PROVIDED WHEN SURFACE VOIDS ARE NO LONGER VISIBLE OR WHEN THERE IS FREQUENT OFF-SITE TRACKING. FREQUENT OFF-SITE TRACKING MAY INDICATE THE NEED FOR GRAVEL REPLACEMENT.
6. CONTRACTOR TO MAINTAIN CONSTRUCTION ENTRANCE AT ALL TIMES.
7. ALL SEDIMENT DEPOSITS ON PAVED ROADWAYS SHALL BE SWEPT AND REMOVED DAILY OR MORE FREQUENTLY AS NEEDED.
8. LIMIT CONSTRUCTION TRAFFIC DURING WET WEATHER OR WHEN THE SITE IS SATURATED, MUDDY OR COVERED IN SNOW.
9. LIMIT SPEEDS OF INGRESS/EGRESS VEHICLES TO 5 M.P.H. OR LESS.

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