

Construction

GENERAL DESIGN CONSIDERATIONS:

- ✓ Prepare erosion-control plan.
- ✓ Fence off sensitive areas.
- ✓ Levy fines for equipment incursions into areas fenced for protection.
- ✓ Locate landings and equipment-storage areas away from headwater wetlands due to the frequent, unpredictable flooding common to these wetlands.
- ✓ Minimize area of disturbance (including access).
- ✓ Minimize duration of disturbance.
- ✓ Work during low-flow periods.
- ✓ Minimize use of heavy machinery in regulated areas. Use smallest equipment possible.
- ✓ Place heavy equipment on stabilization mats when working in wetlands.
- ✓ Do NOT clean equipment in a regulated area, or where runoff will enter a regulated area.
- ✓ Do NOT dump or spill material into wetland.
- ✓ Remove excavated material in layers, and replace in original sequence. Salvage native plant material. Consider creating a wetland plant nursery on-site for later reintroduction efforts. (This can be as simple as lining an area within a square of logs with plastic, laying wetland plants in the lined cradle, and ensuring that they do not dry out.)
- ✓ Return disturbed area to pre-construction grade, and replant with appropriate native vegetation.
- ✓ Restore stream profile, substrate, and habitat.

[There is] a widespread need to understand the relationships between wetland species and wetland topography. Grading must be planned and implemented with great precision— a few centimeters too high or low will prevent the desired community from developing. [Furthermore], while the concept seems simple, one of the most common errors in site construction is incorrect elevation.

*—J.B. Zedler and M.W. Weller
in Wetland Creation and Restoration
1989*



SPILL PREVENTION/WASTE DISPOSAL

DESIGN/CONSTRUCTION:

- ✓ Identify a storage area.
- ✓ Cover and line storage area with impermeable liner.
- ✓ Provide supply of appropriate containers, lids and covers.
- ✓ Seal and label all containers.
- ✓ Surround storage area with a berm.
- ✓ Design the berm to retain a volume at least 1.5 times the total volume of stored material.
- ✓ Post cleanup procedures.
- ✓ Make cleanup/worker safety equipment/supplies readily available.
- ✓ Schedule frequent waste collection.

MAINTENANCE:

- Seal and label all new containers.
- If spill occurs, identify source and stop it. Cover spill with absorbent material.
- Dispose of contaminated material in accordance with state and local requirements.

VEHICLE TRACKING

DEFINITION:

- ✧ A stone pad where vehicles leave and access a paved roadway, at construction sites greater than 2 acres in size

APPROPRIATE FOR:

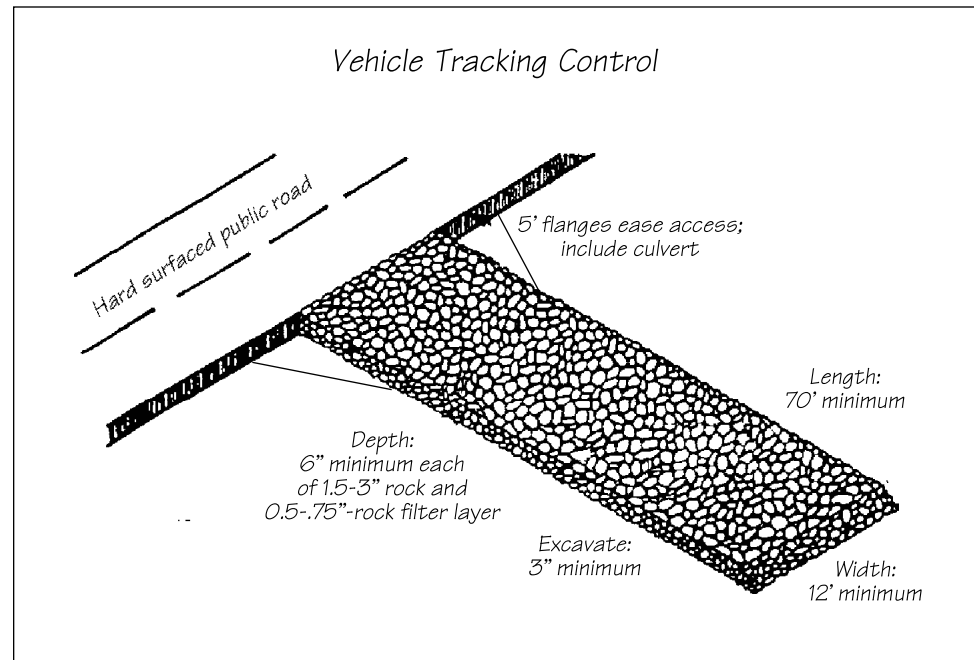
- ❖ reducing the amount of silt, clay, and other soils transported onto paved public roads; and
- ❖ sites greater than 2 acres in extent.

DESIGN/CONSTRUCTION:

- ✓ Build the pad 12' wide and 70' long minimum. Add 5' flanges where the pad meets the existing pavement; bury pipe to accommodate runoff/drainage patterns from pavement.
- ✓ Excavate a minimum of 3".
- ✓ Line with geotextile, or include a 6" filter layer of 1/2-3/4" aggregate.
- ✓ Surface with 6" of 2-3" aggregate or recycled concrete.

MAINTENANCE:

- ☒ Check daily.
- ☒ Sweep, shovel, and otherwise collect any dirt and mud tracked onto paved surfaces within 24 hours or before rainstorms.
- ☒ Transport collected sediment to a controlled sediment-storage area.
- ☒ Replace aggregate as needed.
- ☒ If necessary, increase length of pad or install washrack.
- ☒ Remove when construction activity is complete.



(Illustration adapted from Colorado Urban Drainage Flood-Control District 1992)

