# ITEM 767.91 TIMBER MATTING SQUARE YARD

*REV. 2022.01.01 (REV. DATE TO BE REMOVED BY CONTRACTS)*

Work under this item shall conform to the plans and the relevant provisions of Section 767 and the following:

Timber Mats shall be used to support construction equipment when operating in wetlands. This item consists of furnishing, placing, maintaining, and removing Timber Matting as specified herein, as shown on the plans, and as required to protect existing soils during construction. Mats shall be within the area shown on the plans as necessary for construction access and staging. Existing soils shall be protected to the extent feasible.

At a minimum, material and methods shall follow Army Corp of Engineers Best Management Practices:

[*https://www.nae.usace.army.mil/Portals/74/docs/regulatory/StateGeneralPermits/MA/ConstructionMatBMPs.pdf*](https://www.nae.usace.army.mil/Portals/74/docs/regulatory/StateGeneralPermits/MA/ConstructionMatBMPs.pdf)

Relevant permit conditions and approvals shall also be followed.

## MATERIALS & SUBMITTALS

Material and methods shall be submitted to the Engineer for approval. Submittal shall include a plan to show the proposed extent of matting, methods of preventing soil or other material from entering the wetland through gaps in the timber, procedure for inspections, method of removal and cleaning, and location of cleaning.

The timber construction mats shall be composed of heavy timbers joined together to form stable platforms installed over the surface of wetlands. Mats shall have all timber and rods intact.

Depending on site specific field conditions at the time of construction, multiple layers of Timber Mats and stringers may be necessary to support heavy equipment and to protect the underlying wetland.

As necessary, sediment control devices such as compost filter tubes shall be placed along edge of the Timber Mats to protect wetlands from sedimentation caused by construction vehicle traffic.

Mats shall be certified clean by the vendor prior to installation. The vendor shall submit proof of compliance. Clean is defined as being free of plant matter (stems, flowers, roots, etc.), soil, or other deleterious materials prior to being brought to the project site.

## METHOD OF WORK

Prior to placement of mats, existing wetland limits and topography shall be assessed. Vegetation shall be cut flush. Care shall be taken to avoid removal of plant roots and to avoid soil disturbance.

Mats shall be spread evenly and smoothly to ensure direct contact with the soil at all points and placed parallel to the drainage flow direction. To the extent possible, mats shall be placed along the travel area so that individual boards are perpendicular to the direction of traffic. There shall be no gaps between the mats. Mats shall be placed on either side of wetland area to rest on firm ground.

For situations where the Contractor determines that stones or boulders shall be removed or relocated within wetland areas in order to install safe and level structure work pads or access roads, the boulders shall be moved in a manner which does not result in significant soil disturbance (i.e., pushing with a bull-dozer is not allowed). When there is a significant number of boulders that shall be removed, the Contractor shall consult with the Engineer prior to undertaking the work.

The stockpiling of stone, drill spoils, and other unconsolidated material on construction mats shall be avoided unless determined necessary due to access and work pad constraints. Under this scenario, composite mats and/or other approved methods and materials shall be placed on top of the timber mats to prevent spoils from migrating through the gaps between timbers or spilling over the sides of the matting. The stockpiled spoil shall be removed from the work zone and properly disposed of in uplands approved by the Engineer or hauled off site for proper disposal. Material that falls into or otherwise enters the wetlands shall be removed by hand following removal of the mats.

Sediment controls and stone or wood chip ramps may be installed to promote a smooth transition to and minimize sediment tracking onto the timber mats. Geotextile may be added beneath stone or wood chip transitions to facilitate removal, as necessitated by site or permit conditions.

Mats shall be placed per the manufacturer’s instruction. If requested by the Engineer, method of installation and final placement of mats shall be approved by the Wetland Specialist.

## MAINTENANCE

Mats shall be monitored to assure that they are functioning correctly and shall be inspected for any defects or structural problems. Mats covered with soils or construction debris shall be cleaned and the materials removed and disposed of in an upland location. The material should not be scraped and shoveled into the resource area. Mats that become imbedded must be reset or layered to prevent mud from covering them or water passing over them. Worn timber or plywood used as a wearing surface shall be replaced as required and to the satisfaction of the Engineer.

## REMOVAL OF MATS

Clean mats after use to remove any invasive plant species seed stock. Cleaning methods may include but are not limited to, shaking or dropping mats in a controlled manner with a piece of machinery to knock off attached soil and debris, spraying with water or air, sweeping, or exposing the mats to high temperatures. The location and method of cleaning shall be approved by the Engineer.

Upon completion of construction, mats shall be removed. Matting should be removed by “backing” out of the site, removing mats one at a time.

If rutting or soil compaction following construction mat removal is observed, the area shall be returned to pre-existing conditions consistent with the surrounding area, by light hand raking or by back-blading with machinery. Deeper ruts shall be graded using available, loose soil from the work area.

Care shall be taken to inspect wetland crossings as each mat is removed to ensure any undesirable materials are properly removed and disposed of off- site.

If determined necessary by the Engineer, to enhance the functions of an altered wetland, a wetland seed mix shall be sown throughout the disturbed areas. In most instances, natural re-vegetation is an appropriate means to re-establish the wetland plant community in lieu of seeding.

Proper snow removal on construction mats shall avoid the formation of ice. To avoid the formation of ice, snow shall be removed from construction mats before applying sand. Prior to their removal from wetlands, sand shall be collected from the construction mats and disposed of in an upland area. A round street sweeping brush mounted on the front of a truck may be an effective way to remove snow from construction mats. Propane heaters may also be suitable solutions for snow removal and/or de-icing of swamp mats. Once construction mats are removed, wetlands shall be inspected for build-up of sand that may have fallen through swamp mats, therefore care shall be taken to inspect wetland crossings carefully as each mat is removed to ensure sand is properly removed and disposed of off-site.

## COMPENSATION

Timber matting will be measured for payment by the square yard, complete in place, maintained and removed. Overlapped matting will not be measured for payment.

Timber matting will be paid for at the Contract unit price per square yard, which price shall include all labor, materials, equipment, sediment barriers specific to matting, geotextile, stone, wood chips, cutting of existing vegetation, and incidental costs required to complete the work of installation, maintenance, removal, and restoration of soil and vegetation, if required.