

MATT™ Assembly/Repair Checklist

(File with Project/Maintenance Records)

Performed by: _____

Date: _____

Location: _____

- 1. Ensure proper site grading complies with state/specifying agency guidelines and/or AASHTO Roadside Design Guide, whichever is more stringent. (p 8)
- 2. Ensure required traffic control is in place to conduct MATT™ assembly. (p 5)
- 3. Ensure only Valtir provided MATT™ parts are used for the assembly of the MATT™ and that all parts are free of damage. (p 5)
- 4. Under NO circumstances shall the rail within the MATT™ be curved, between Post 1 and Post 6. Ensure all MATT™ post spacings are 6'-3" [1.905 m] on center. (p 8)
- 5. Ensure the Strut Hole of the MATT™ CR Post 1 Bottom with Soil Plate is **upstream** and the Post is 4" [100 mm] (+1", -0") [+25 mm, -0 mm] above the finished grade. (pp 17, 21-22).
- 6. Ensure Soil Plates are installed on the downstream side of Posts 1-6 (pp 17-20)
- 7. Ensure the center of the SYTP® yielding holes at Posts 2-5 are approximately centered at finished grade. (pp 18-20)
- 8. Ensure the MATT™ Strut Adapter Plate (at Post 2) and Strut are installed between Post 1 and 2 on the post side **OPPOSITE** the closest traffic, when assembled in a Median or Roadside application. When assembled in a Gore application, it is acceptable to place them on either side of the post(s). Ensure the toe of the Strut's vertical leg is pointed down. (p 21)
- 9. Ensure the **downstream** slotted holes in the MATT™ Double Spacer is bolted to the **downstream** hole of the MATT™ CR Post 1 Top and the MATT™ SYTP® (Post 2). (p 23)
- 10. Ensure the **upstream** slotted hole in the MATT™ Spacer (Posts 3-5) is bolted to the MATT™ SYTP® with Soil Plate using the **upstream** hole in the post. (p 24)
- 11. Ensure all MATT™ Guardrails are installed 31" [787 mm] (+1", -0") [+/- 25 mm, -0] from finished grade. (pp various)
- 12. Ensure all MATT™ 12 Gauge Transition Guardrails with Fin-4, at post location 6, are **lapped in the direction** of the nearest adjacent traffic and fins are positioned upstream. (p 25)
- 13. Ensure the MATT™ 12 Gauge, Slotted Intermediate Guardrails with Fin-3 are **lapped to the outside** of the MATT™ 12 Gauge Transition Guardrails with Fin-4. (p 26)
- 14. Ensure the MATT™ 12 Gauge, Slotted Intermediate Guardrails with Fin-3 are **lapped to the outside** of the MATT™ 12 Gauge, Slotted Intermediate Guardrails with Fin-3. (p 27)
- 15. Ensure the MATT™ 12 Gauge, Slotted Intermediate Guardrails-2 are **lapped to the outside** of the MATT™ 12 Gauge, Slotted Intermediate Guardrails with Fin-3. (p 28)
- 16. Ensure the MATT™ 10 Gauge, Slotted Front Guardrails-1 are **lapped to the outside** of the MATT™ 12 Gauge, Slotted Intermediate Guardrails-2. (p 29)
- 17. Ensure the MATT™ 10 Gauge Head Rails are **lapped to the outside** of the MATT™ 10 Gauge Slotted Front Guardrails-1. (p 31)
- 18. Ensure the MATT™ Backing Plate is **assembled on the outside** of the MATT™ Guardrail Panels at Posts 2, 3, 4 and 5. (pp 26-29)
- 19. Ensure the 5/8" heavy flat washers (1/4" thick) are placed between the nut and spacers at Posts 1-5. (pp 26-29)
- 20. Ensure the MATT™ Head Tube is attached to the MATT™ Impact Head and it is less than 1/4" [6mm] from the MATT™ CR Post 1 Top. (pp 33-34)
- 21. Ensure all MATT™ fasteners identified in Step 16 are **torqued to 65 ft-lb [88 Nm], (+/- 3 ft-lb) [+/- 4 Nm]**. (p 35)
- 22. Ensure all MATT™ fasteners that are NOT required to be torqued are tightened to a snug position with a minimum of two (2) bolt threads protruding beyond the nut. (Various pp)
- 23. Ensure the Cable Anchor Bracket Angle is hooked over the MATT™ CR Post 1 Top and the cable is taut. (pp 30-35)
- 24. Ensure delineation is placed on the MATT™ Impact Head per MUTCD and/ or state/specifying agency. (p 32)
- 25. Ensure any steel delineator posts are a minimum of 3'-0" [1 m] upstream from the MATT™ Impact Head. (p 32)

MATT™ Routine Inspection Checklist

(File with Maintenance Records)

Performed by: _____

Date: _____

Location: _____

Valtir recommends the state/specifying agency develop and administer their own end terminal inspection program, based on location of unit, volume of traffic and impact history.



Important: The MATT™ and all of its components shall be inspected for damage after every impact. Repair using only Valtir parts that are specified for use within this MATT™ Product Description Assembly Manual.

If no end terminal inspection program exists, Valtir recommends visual drive-by inspections at least once every month and walk-up inspections every six (6) months. These inspections shall, at a minimum, consist of:

Visual Drive-By Inspections (Recommended Frequency: Monthly)

- Check for damage caused by vehicle impacts.
- Check for damage caused by impacts from snowplow, mowing or roadway operations.
- Check for misalignment.
- Check for missing system components.
- Check for vandalism.
- Check for damage caused by adverse weather conditions (i.e. erosion, weight of snow, UV).
- Check that the anchor cable appears taut.

Walk-Up Inspections (Recommended Frequency: Every Six (6) Months)

Walk-Up Inspections include ALL Visual Drive-By Inspection items (listed above) as well as the items listed below.

- Ensure required traffic control is in place to conduct walk-up inspection.
- Clear and dispose of any debris or trash found on the MATT™ site, which may interfere with the performance of the MATT™.
- Check that fasteners are fully tightened. See Step 16 for torqued nut locations. All other locations are to be tightened to a snug position with a minimum of two (2) bolt threads protruding beyond the nut.
- Check for erosion to the site grading around the system.
- Ensure that the MATT™ Anchor Cable is taut and the Bearing Plate is properly positioned.
- Ensure the MATT™ Guardrail Panels are lapped correctly allowing each of the upstream guardrail panels to translate over the downstream guardrail panels.

If any of the above items are identified during the inspection process, swift action shall be taken to correct and repair the MATT™ to working condition as outlined in the MATT™ Product Description Assembly Manual, latest edition.