Inspector Quantlist Report 20190613

| Diary Number: | Inspector Name: |
|---------------|-----------------|
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TRACS Number: _____ Date: _____

Division IX: Incidentals Title: Max Tension Tangent Terminal MASH TL-3 (Steel Posts, 6" x 8" Wood Blockouts)

Admin Instructions: Use this Quantlist with Manufacturers Assembly Manual supplied by the Manufacturer/Contractor/Subcontractor or download the Manual from http://www.barriersystemsinc.com/maxtension-mash-end-treatment

| 'lan Reference: | |
|------------------------|--|
| coute: | |
| Offset from edge line: | |
| Begin Station: | |
| End Station | |

| Attribute Numbers | Weight | Narratives | References |
|----------------------|----------|---|---|
| 0. | Minor | All stakeholders participated in the pre-activity meeting. | Construction Bulletin 02-01 |
| 1. | Minor | Certificates of Compliance or Certificates of Analysis conforming to the requirements of Subsection [106.05] shall be submitted. | Standard Specifications 1012-1 Standard Specifications 106.05 Standard Specifications 905-2 |
| 2. | Minor | The Contractor furnished Certificates of Compliance conforming to the requirements of Subsection 106.05, which state that steel or iron products incorporated in the project meet the "Buy America" Act requirements certifying that all manufacturing processes producing a steel or iron product, including any application of a coating to iron or steel, occurred in the United States. | 23 CFR Part 635 Special Provisions 106.15 Standard Specifications 106.05 |
| 3. | Critical | AZ811 or Blue stake is done before placement of the post (locating utility, pipes, box culverts and sleeves). | Standard Specifications 107.15 |
| 4. | Minor | For other than High Strength Anchor Bolts, Certificate of Compliance required and three samples per lot, or 0.1% of lots in excess of 3000, for each bolt diameter, including nuts and washers. | Construction and Materials, Materials Quality Assurance. Appendix C 1012 |

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| 5. | Critical | When a traffic control plan is included in the project plans, this plan shall govern unless an alternate plan, acceptable to the Engineer, is submitted by the contractor. | Standard Specifications 701-1 |
|-----|----------|--|--|
| 6. | Minor | Earthwork placement, grading, compacting, and bituminous surfacing shall be completed prior to installation of posts for guardrail terminals. | Standard Specifications 905-3.10 |
| 7. | Minor | The Bituminous approach and widening is built to plans dimensions. | Layout For MAX- Tension Terminal Pad C10.22 |
| 8. | Major | The Bituminous approach and widening matches the cross slope of the existing roadway. | Layout For MAX- Tension Terminal Pad C10.22 |
| 9. | Critical | Slot on post 1 is on upstream end of the system. | Installation Manual (Pg. 16, Step 1) |
| 10. | Major | Only posts 2-9 require a Blockouts! Do not install Blockout on post 1 | Installation Manual (Pg. 18, Step 3) |
| 11. | Critical | System height shall be 31" +/- 1" | Installation Manual (Pg. 16, Step 1) |
| 12. | Critical | System installed without offset or with allowable offset of 0-2 ft. | Installation Manual (Pg. 16, Step 1) |
| 13. | Critical | Rail 1 and rail 2 are spliced with the guardrail Bolts shall be installed with the bolt heads on the non-traffic side and nuts on the traffic side. | Installation Manual (Pg. 24, Step 9) |
| 14. | Critical | Slider Joint - traffic side slider (TSS) should be attached to downstream end of rail 2 with nuts on the traffic side and arrow pointing toward the front of the system. | Installation Manual (Pg. 22, Step 7) |
| 15. | Critical | Rail 3 is not bolted at post 6. | Installation Manual Inspector Checklist P. 31(P.21) NOTE: |
| 16. | Critical | Slider Joint - inner side slider (ISS) should be attached to the upstream end of rail 3 with nuts on the non-traffic side. | Installation Manual (Pg. 20, Step 5) |
| 17. | Critical | All guardrail panels should be lapped with the upstream most rail on the outside. Rail 1 over rail 2, rail 2 over rail 3, rail 3 over rail 4, and rail 4 over rail 5. | Installation Manual |
| 18. | Critical | Tooth is installed and engaged in the slot at the slider joint. The flat edge of the tooth shall point toward the front of the system. | Installation Manual (Pg. 22, Step 7) |
| 19. | Major | Guardrail nuts on impact head are on the outside. | Installation Manual (Pg. 25, Step 10) |
| 20. | Critical | Rectangular washer Part# 4002051 and square washer Part# SBI- 1102027-00 used at post 1. | Installation Manual (Pg. 25, Step 10) |
| 21. | Critical | Cable closest to the traffic side of the system passes through bottom hole on impact head. | Installation Manual (Pg. 26, Step 11) |
| 22. | Critical | Friction plate is installed inside impact head, turned to engaged position and the Friction plate bolts are completely tightened. | Installation Manual (Pg. 26, Step 11) (Pg. 27 Step 12) |
| 23. | Critical | Cables should be taut and not visibly sagging. | Installation Manual (Pg. 28, Step 13) |
| 24. | Major | Slider Joint - rear side slider (RSS) should be attached with the nuts on the non-traffic side and arrow pointing toward the front of the system. | Installation Manual (Pg. 29, Step 14) |
| 25. | Major | The color of the reflective portion of the barrier markers conform to the color of the adjacent edge line. | Standard Specifications 905-3.11(A) |
| 26. | Major | The delineation on the Extruder head conforms to the plan detail or Signing and Marking Standard Drawing. | Signing and Marking Standard Drawings M-34 |

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| 27. | Major | Maintenance Inspection. Visual Drive-By Inspections Recommended Frequency Monthly Check for: • Damage caused by vehicle impacts • Minor damage cause by impacts from roadside maintenance equipment • Misalignment • Missing components • Damage from vandalism • Loose hardware | Recommended |
|-----|----------|--|-------------------------------------|
| 28. | Major | Maintenance Inspection (Cont.) Walk-Up Inspections Recommended Frequency – Twice a Year Check for: • Damage caused by vehicle impacts • Minor damage cause by impacts from roadside maintenance equipment •Misalignment • Missing components • Damage from vandalism • Sagging cables • Frayed cable • Grading around the system • Loose hardware • After inspection is complete, ensure all items identified during the inspection process are corrected. | Recommended |
| 29. | Critical | Do not install any type of washer (e.g., rectangular washer) or delineator between the post bolt head and the guardrail. | Installation Manual (P. 24 NOTE) |
| 30. | Minor | Quantlist Minimum Frequency is being followed, One per installation. | Construction Bulletin 07-01 |