Thrie/W-Beam/Tubular Barrier Gap Rail for MASH TL-3

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Thrie/W-Beam/Tubular Barrier Gap Rail for MASH TL-3

- Problem
  - Sometimes manholes and other features in the alignment of barriers
  - Need to provide 8-foot maximum wide gap to access manhole/features
  - Need to provide structural barrier that is removable for access
  - Removable barrier needs to meet crash requirements of MASH TL-3

Photos of Completed Test Installation

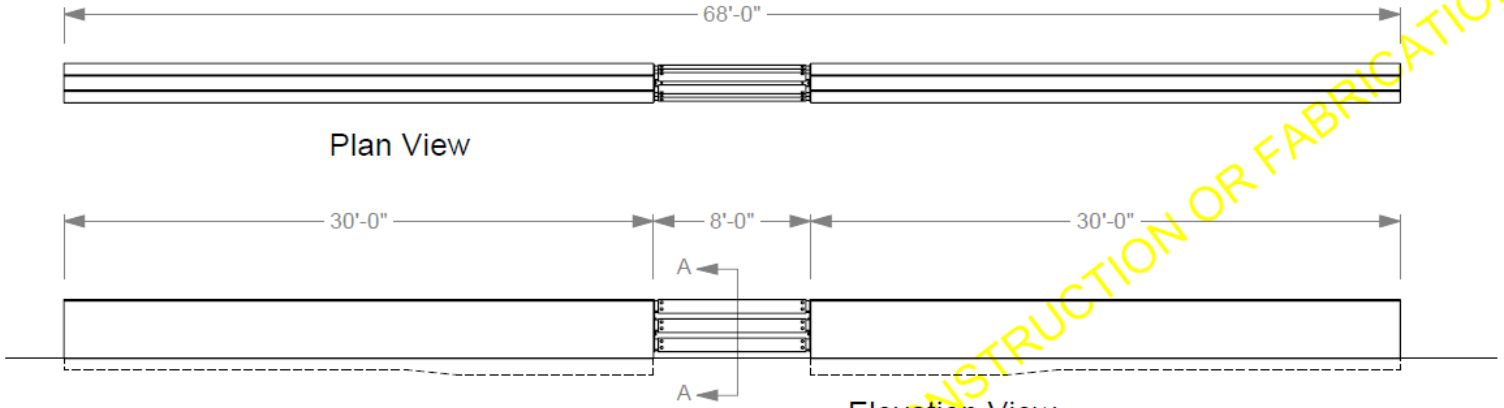
Thrie/W-Beam/Tubular Barrier Gap Rail for MASH TL-3

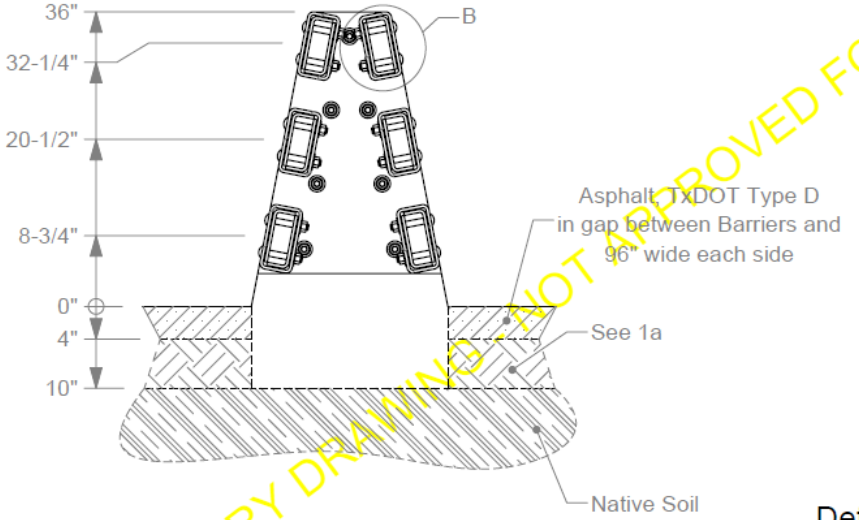
- MASH Test 3-10 was performed on October 9, 2019, CIP = 3.6 ft. upstream of end of tapered edge of rail connection.
- Test was not successful.

Test 3-10

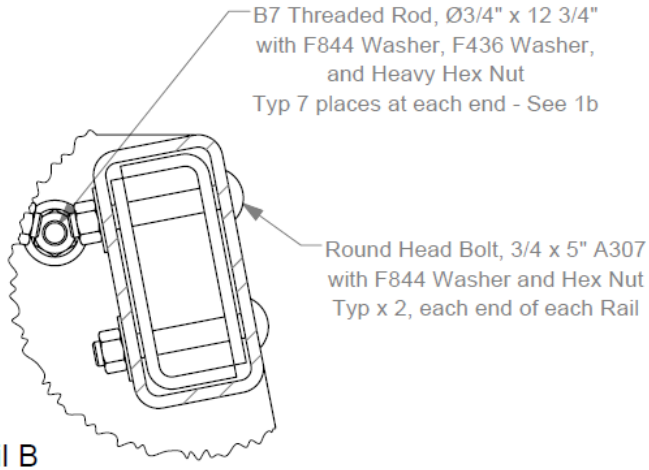
New Design Details (Preliminary)

Test Installation





Section A-A
Scale 1 : 20



Detail B
Scale 1 : 5

1a. Backfill around barriers with AASHTO M147-65(2004), grade B crushed limestone road base, compacted to 95% of standard proctor density.

1b. Install with 11" embedment. Secure with Hilti HIT-RE 500 V3 epoxy according to manufacturer's instructions.

1c. Threaded Rods and all connecting hardware shall be galvanized.

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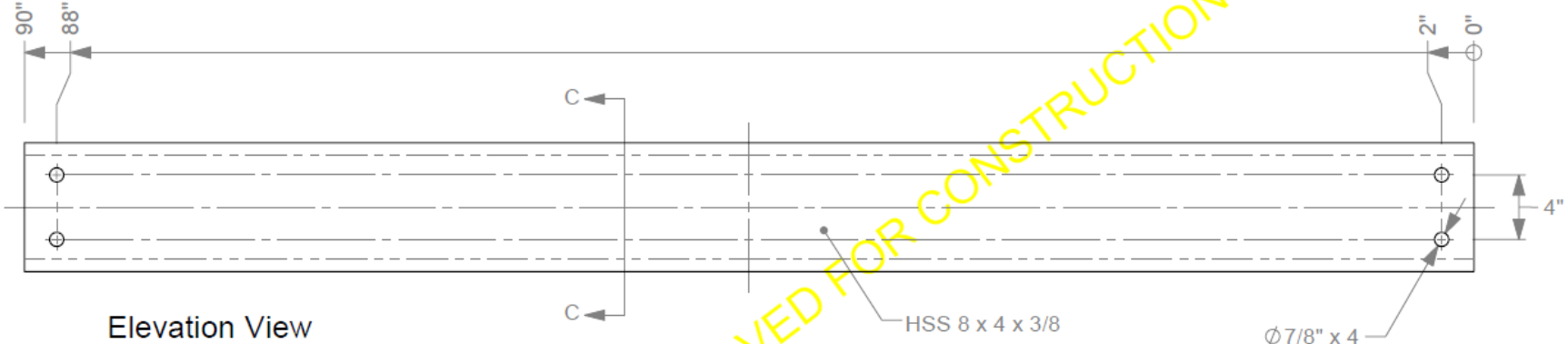
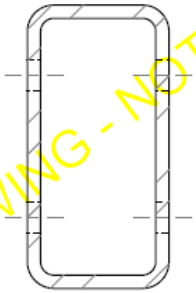
Project #610461 Barrier Gap		2020-08-18
Drawn by GES	Scale 1:100	Sheet 1 of 5 Test Installation

Rail Details

Plan View



Elevation View



Section C-C

Scale 1 : 5

2a. Galvanize after fabrication is complete.

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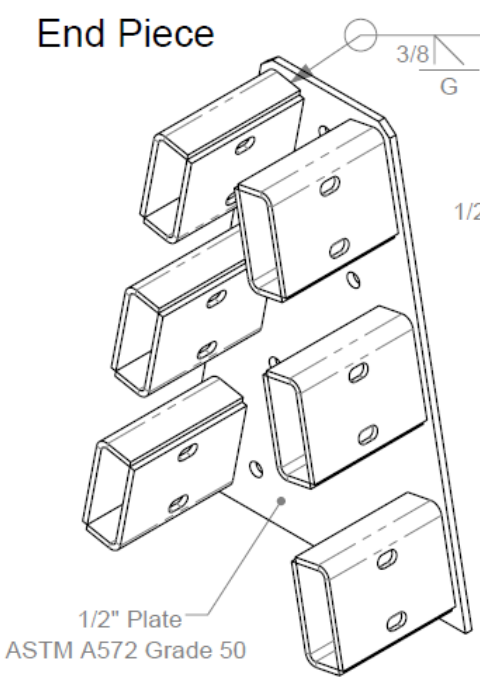
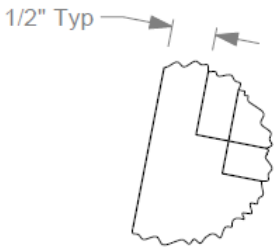
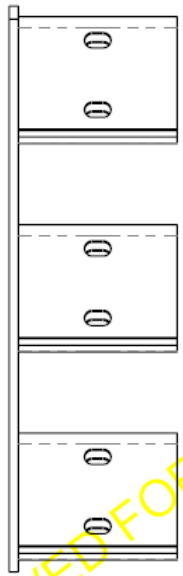
End Piece



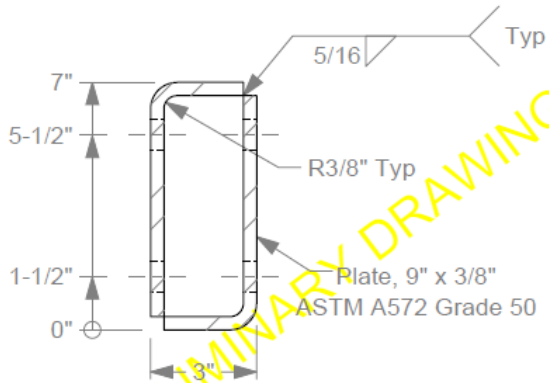
Isometric View



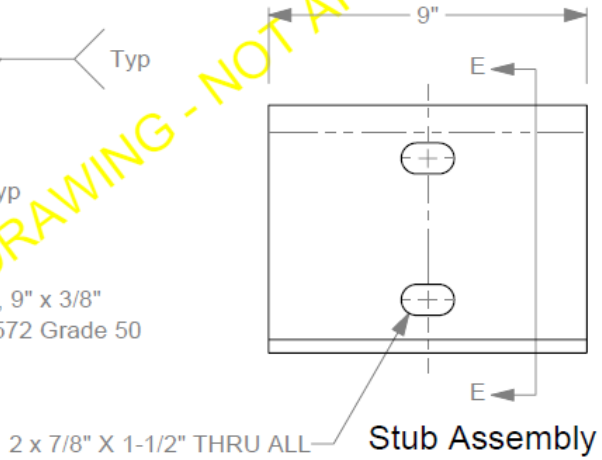
Detail D
Scale 1 : 2



Elevation Views



Section E-E
Scale 1 : 5



Stub Assembly
Scale 1:5
See 3b

3a. All welding must be performed by certified welders using industry standard practices.

3b. Bent Plate assemblies must fit in rails. Check fit before galvanizing.

3c. Galvanize all components after fabrication is complete.

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Drawn by GES	Scale 1:10	Sheet 3 of 5 End Piece

New Funding Required for New Design MASH TL-3 Testing

- Additional funding needed to include design, fabrication, construction, New Test 3-10, and Test 3-11 cost increase = $90,000