



**CITY OF NOVI CITY COUNCIL
JULY 26, 2021**

SUBJECT: Approval to purchase a 2022 Scorpion II Crash Trailer Attenuator from Truck & Trailer Specialties, through the City of Rochester Hills RFP contract, in the amount of \$27,881.

SUBMITTING DEPARTMENT: Department of Public Works, Fleet Division

EXPENDITURE REQUIRED	\$ 13,940.50 Water & Sewer Fund \$ 13,940.50 General Fund \$ 27,881.00 TOTAL
AMOUNT BUDGETED	\$ 14,359 Water & Sewer Fund \$ 14,359 General Fund \$ 28,718 TOTAL
APPROPRIATION REQUIRED	\$ 0
LINE ITEM NUMBER	592-592.00-982.067 Water & Sewer Fund 101-442.30-982.067 General Fund

BACKGROUND INFORMATION:

DPW Field Operations and Water and Sewer operators currently use an arrow board and trail trucks to protect workers from motorists when providing services on the roads and in the right of way. The addition of a crash attenuator trailer will improve measures for the city operators and provide a safer work environment while completing maintenance and repairs. This safety equipment trailer not only protects the driver of the trail truck and crews but also helps minimize the impact of a vehicle striking the back of the trail truck. The estimated delivery is in 8-9 weeks.

RECOMMENDED ACTION: Approval to purchase a 2022 Scorpion II Crash Trailer Attenuator from Truck & Trailer Specialties, through the City of Rochester Hills RFP contract, in the amount of \$27,881.

TRUCK & TRAILER *Specialties, Inc.*

900 Grand Oaks Drive | Howell, MI 48843 | www.ttspec.com | ph: (517) 552-3855 | fx: (517) 552-3666

March 25, 2020

City of Novi
45175 Ten Mile Road, Novi, MI 48375-3024
Attn: Mike Rhatigan, Fleet Asset Manager

Equipment Quotation

The following pricing is based on City of Rochester Hills RFP-RH-13-030 contract awarded November 2013

Supply Scorpion II TL-3 MASH Trailer Attenuator including the following:

MASH-tested, passed and eligible. The Trailer Attenuator (TA) is a mobile crash cushion designed with a trailer tongue and axle/wheel that connects directly to the support vehicle's trailer connection and from a lunette eye on the attenuator. The TA can be used on support vehicles with a minimum actual/curb weight of 12,000 lbs with no upper weight limit (infinite weight). The TA has overall dimensions of 17.8 ft (5.4 m) x 8 ft (2.4 m) x 4.3 ft (1.3 m) with ground clearance of 12.0 in \pm 1.0 in (305 mm \pm 25 mm).

The TA consists of three main components: the trailer, tongue, front Strut, and rear Cartridge. The trailer tongue is positioned nearest to the support vehicle, the Strut is bolted to the tongue and Cartridge. The Cartridge is the rear most component, furthest away from the support vehicle. The trailer tongue acts as a standard single point connection under normal towing conditions. The trailer tongue is designed with an integral Telescoping Anti-Rotation System (TARS) that is activated when the TA is impacted. The forward sliding action occurs during an impact, upon completion of the full telescoping action the outboard anti-rotation supports come into contact with support vehicle frame plate which in turn prevents angular rotation about the rear of the host vehicle. The Strut consists of four outboard convex aluminum tubes forming an aluminum structural weldment. The aluminum structural weldments bolt directly to the TARS tongue and the rear Cartridge.

The structural assembly encompasses the aluminum crush Module D. The Cartridge consists of four outboard convex aluminum tubes forming an aluminum structural weldment. The aluminum structural weldments bolt directly the Struts steel angles and rear trailer diaphragm. The TA uses a Cartridge Trailer Diaphragm with an axle/wheel attachment for towing the TA. The structural assembly encompasses the two-aluminum crush Module C's. Attached to the rear most end of the Cartridge is the single crush Module A.

Includes Wanco 15-light arrowboard and manual upright installed.

Above supplied equipment pricing: \$27,881.00 ea.

Minimum full 1-year warranty on parts and labor on all equipment.

Payment Terms: Net 30. Pricing effective for 45 days.

Pricing does not include any of the Rochester Hills RFQ discounts that may be applicable.
2% discount off total taken at invoice if payment received within 30 days.

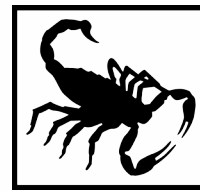
FOB: City of Novi

Delivery: 8-9 weeks ARO

Thank you for the opportunity to quote.

Respectfully submitted by,
Jon Luea/Dan Bouwman

**TraFFix
Devices Inc.**



Scorpion II®

TraFFix Devices Inc.

www.traffixdevices.com

PAT #6,024,341 #6,581,992 B1 #6,926,324 B1 #7,243,964 B1
#7,438,337 B1 #6,092,959 #6,491,920D1

Engineered Products for Safer Highways

**Scorpion II® TL-3 Trailer Attenuator
MASH Tested, Passed and Eligible**



10002-TL3M-12TA
(Arrowboards, Uprights Sold Separately)

- The FIRST and ONLY Trailer Attenuator eligible for MASH, TL-3.
- FHWA Eligibility Letter, CC-138.
- Infinite weight tested and eligible allows the Scorpion II® Trailer to be used on heavy host vehicles (minimum 12,000 lbs.), with no upper weight limit.
- Scorpion II® remained attached to the host vehicle and pintle hook during all impact testing.
- Telescoping Anti-Rotational System (TARS) minimizes Scorpion II Trailer rotation during angled and offset impacts, preventing trailer separation from host vehicle.
- No additional hardware required for connection to host vehicle.
- The Scorpion II® proven modular design crushes in progressive stages allowing quick and economical replacement of damaged parts.
- LED Lights standard on all Scorpion II® Trailer Attenuators.
- The unique curved design gives full width protection to the back of the host vehicle and shields the deadly “coffin corners” of the truck.
- Rear axle placement improves trailer stability and prevents the tail from “bottoming out” on driveways and uneven surfaces.
- MASH tested and eligible with optional display panel, which can be easily attached to Scorpion II® Trailer Attenuator.

www.traffixdevices.com

PRODUCT BULLETIN



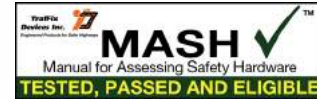
Scorpion II®

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PAT #6,024,341 #6,581,992 B1 #6,928,324 B1 #7,243,964 B1 #7,438,337 B1 #6,992,959 #6,491,920 B1

Scorpion II TL-3 Trailer Attenuator
MASH Tested, Passed and Eligible



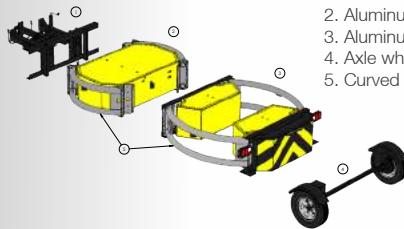
Scorpion II TL-3 Trailer Attenuator Specification

The Trailer Attenuator (TA) is a mobile crash cushion designed with a trailer tongue and axle/wheel that connects directly to the support vehicle's trailer connection and from a lunette eye on the attenuator. The TA can be used on support vehicles with a minimum actual/curb weight of 12,000 lbs with no upper weight limit (infinite weight). The TA has overall dimensions of 17.8 ft (5.4 m) x 8 ft (2.4 m) x 4.3 ft (1.3 m) with ground clearance of 12.0 in \pm 1.0 in (305 mm \pm 25 mm). The TA consists of three main components: the trailer tongue, front Strut, and rear Cartridge. The trailer tongue is positioned nearest to the support vehicle, the Strut is bolted to the tongue and Cartridge. The Cartridge is the rear most component, furthest away from the support vehicle. The trailer tongue acts as a standard single point connection under normal towing conditions. The trailer tongue is designed with an integral Telescoping Anti-Rotation System (TARS) that is activated when the TA is impacted. The forward sliding action occurs during an impact, upon completion of the full telescoping action the outboard anti-rotation supports come into contact with support vehicle frame plate which in turn prevents angular rotation about the rear of the host vehicle. The Strut consists of four outboard convex aluminum tubes forming an aluminum structural weldment. The aluminum structural weldments bolt directly to the TARS tongue and the rear Cartridge. The structural assembly encompasses the aluminum crush Module D. The Cartridge consists of four outboard convex aluminum tubes forming an aluminum structural weldment. The aluminum structural weldments bolt directly the Struts steel angles and rear trailer diaphragm. The TA uses a Cartridge Trailer Diaphragm with an axle/wheel attachment for towing the TA. The structural assembly encompasses the two-aluminum crush Module C's. Attached to the rear most end of the Cartridge is the single crush Module A.

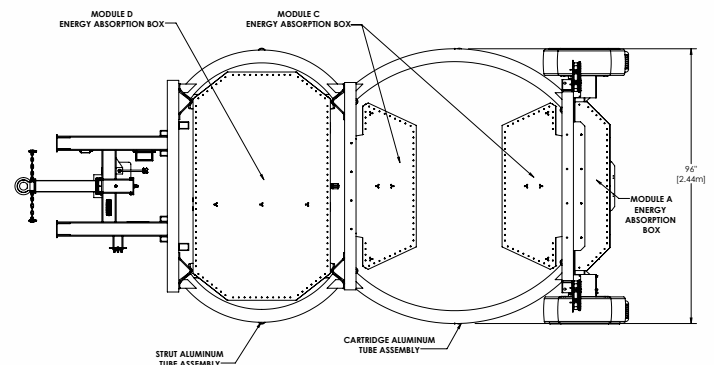
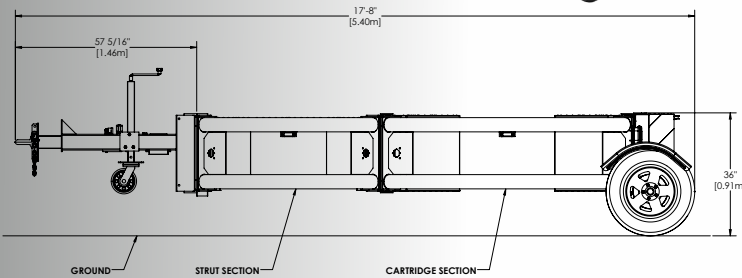


Scorpion II® TL-3 Trailer Attenuator with Display Panel Impacted by 5,006 lbs (2,271 kg) Pick-Up Truck

TL-3 SPECIFICATIONS	
Length:	17.8 ft (5.4 m)
Width:	7.8 ft (2.4 m)
Height from the ground:	12.0 in \pm 1.0 in (304.8 mm \pm 25.4 mm)



1. Steel tongue section including TARSTM
2. Aluminum strut section
3. Aluminum cartridge section
4. Axle wheel assembly
5. Curved re-directing aluminum tubes



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 www.traffixdevices.com

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