

INFORMATION HANDOUT

For Contract No. 05-1E0604
At 05-Mon-101-47.7/53.9

Identified by
Project ID 0513000030

MATERIALS INFORMATION

Water Source Information-Water Availability letters from the City of Soledad dated May 4, 2015

PRODUCT INFORMATION

Temporary Alternative Crash Cushion System

Quadguard II CZ

ADIEM

ABSORB

ACZ 350

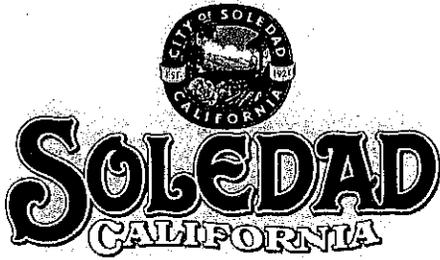
SLED

Alternative Crash Cushion System

TAU II

Quadguard

SMART SCI 100MG



May 4, 2015

Caltrans Design II
Mr. Brian Fuller P.E.
1150 Laurel Lane
San Luis Obispo, Ca 93401

RE: CONSTRUCTION WATER-

Dear Mr. Fuller,

Pursuant to my letter to you dated 05/4/2015, I foresee, at this time, that the City of Soledad will have more than 900,00 gallons of Title 22 Reclaimed Water available for your construction project (EA# 05-1E060), that is due to start in the Fall of 2015. It is always possible that severe drought conditions six months from now may affect this tentative water allocation.

If you have any questions, please contact me by telephone at (831) 223-5190 or by email at Ed.Waggoner@cityofsoledad.com.

Sincerely,

Ed Waggoner,
Water Resources Manager
City of Soledad WRF
34520 Morisoli Road
Soledad Ca. 93960
ph 831-223-5190
fax 831-223-5192





May 4, 2015

Caltrans Design II
Attn: Brain Fuller
1150 Laurel Lane
San Luis Obispo, Ca 93401

RE: CONSTRUCTION WATER-

Dear Mr. Fuller

Pursuant to your contact to the City of Soledad Chief Plant Operator, Edward Alexandre, the City of Soledad anticipates being able to supply construction water for various projects located in the Monterey County area surrounding the City of Soledad. The City can provide the projects with either Title 22 Reclaimed Water or Potable Water. Listed below are details for each water source.

POTABLE WATER

1. Our nearest connection point is located on 1013 South Front Street.
2. The City can provide a 3" construction meter on an existing fire hydrant at this location. *Should the contractor desire to place an overhead tank trailer, an alternative location will be required.*
3. An "Application for Water Service" will need to be completed.
4. A deposit of \$100.00 is required (credit against water use). Also included in the \$100.00 is the application fee.
5. A fixed meter fee of \$138.50/month and water consumption of \$1.58.00 per unit. (one unit is 100 cubic feet or 748 gallons)
6. Ability to provide service may be impacted by any emergency drought measures that may be in place at time of application. Currently, the City has no drought restrictions on providing water service.

TITLE 22 RECLAIMED WATER

1. Our nearest connection point is located on 34520 Morisoli Road.
2. The City can provide a 3" construction meter on an existing fire hydrant at this location. *Should the contractor desire to place an overhead tank trailer, an alternative location will be required.*
3. An "Application for Water Service" will need to be completed.

4. A deposit of \$100.00 is required (credit against water use). Also included in the \$100.00 is the application fee.
5. A fixed meter fee of \$138.50/month and water consumption of \$1.58.00 per unit. (one unit is 100 cubic feet or 748 gallons)
6. Currently, the City has no drought restrictions on providing Title 22 Reclaimed Water Service and no plans for water restrictions on the Title 22 Reclaimed Water.

If you have any questions, please contact me by telephone at (831) 223-5190 or by email at Ed.Waggoner@cityofsoledad.com.

Sincerely,

Edward Waggoner

Ed Waggoner,
Water Resources Manager
City of Soledad WRF
34520 Morisoli Road
Soledad Ca. 93960

ph 831-223-5190
fax 831-223-5192



QUADGUARD[®] CZ SYSTEM

PORTABLE NON-GATING REDIRECTIVE CRASH CUSHION FOR WORK ZONES



OVERVIEW

The innovative QuadGuard CZ System has been improved with the addition of modular plate bases to reduce anchorage and speed installation. The QuadGuard CZ System meets all of today's strict crash cushion performance criteria. The QuadGuard CZ System provides the same lifesaving efficiency and features of the permanent QuadGuard System, in a compact, portable system that is easier than ever to install.

During head-on impacts, the QuadGuard Systems telescope rearward and crush the cartridges to absorb the energy of impact. When impacted from the side at angles up to 20°, the QuadGuard Systems safely redirect the errant vehicle back toward its original travel path without allowing gating.

FEATURES AND BENEFITS

- ▶ NCHRP 350 TL-3 performance requires only 30 anchors
- ▶ Compact, modular design can accommodate speeds from 70 km/h (45 mph) to 115 km/h (71 mph)
- ▶ 80% reusability after most design impacts
- ▶ Lifting points allow easy repositioning as a complete unit
- ▶ Easy to access anchor holes allow for fast installation
- ▶ Available in 610, 762 & 910 mm (24, 30 & 36 in.) widths to protect a wide array of hazards

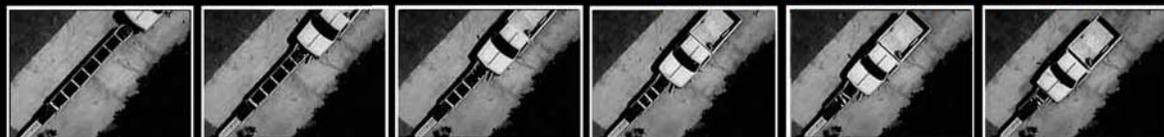


Modular plate base reduces anchorage and speeds installation

Built-in lifting points allow the system to be moved as a complete unit



ENERGY ABSORPTION
SYSTEMS, INC.



SAVING LIVES BY DESIGN

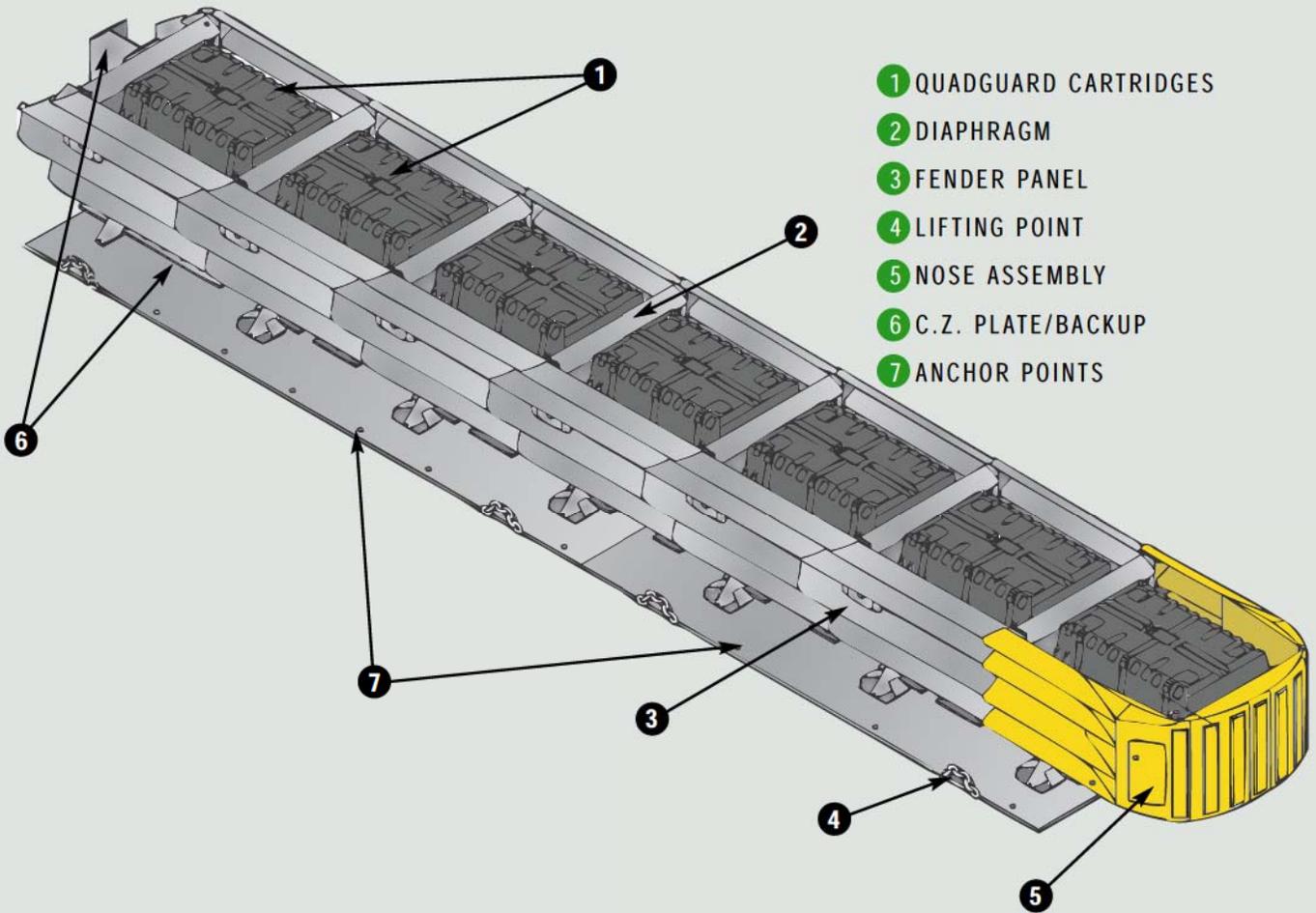
QUICK & EASY INSTALLATION & REMOVAL



- ▶ Only 30 anchor bolts needed for TL-3 six bay unit
- ▶ Easy access to anchor holes
- ▶ Entire system can be moved as a single unit using lifting points

SPECIFICATIONS

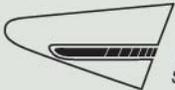
| | | |
|-----------------------------|-----------|------------|
| Minimum Width at Backup | 610.0 mm | (2') |
| Maximum Width at Backup | 915 mm | (3') |
| Weight (typical 6-bay unit) | 1594.0 kg | (3512 lb.) |
| Length (typical 6-bay unit) | 6.4 m | (21') |



- 1 QUADGUARD CARTRIDGES
- 2 DIAPHRAGM
- 3 FENDER PANEL
- 4 LIFTING POINT
- 5 NOSE ASSEMBLY
- 6 C.Z. PLATE/BACKUP
- 7 ANCHOR POINTS



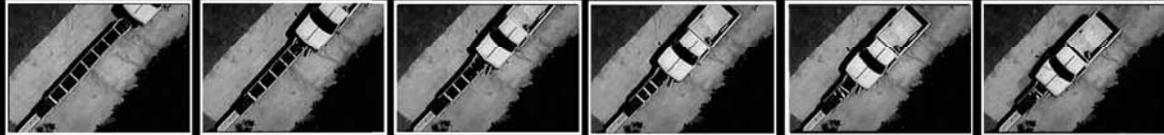
WWW.QUIXTRANS.COM



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SYSTEMS, INC.

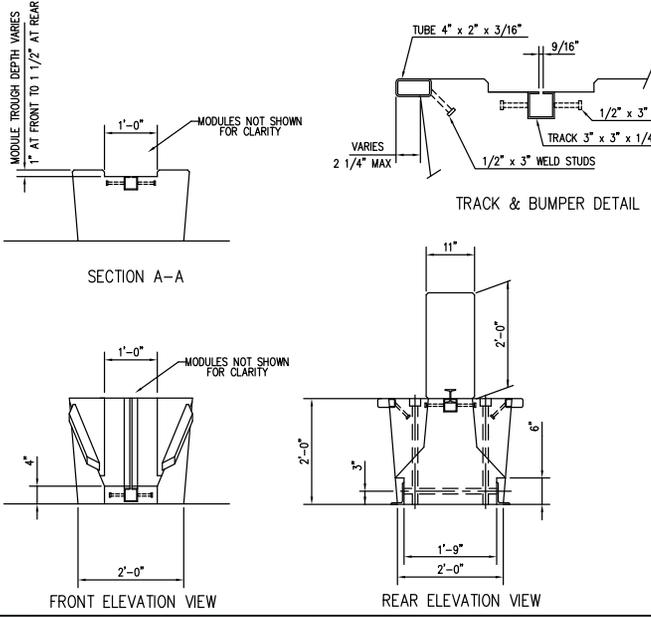
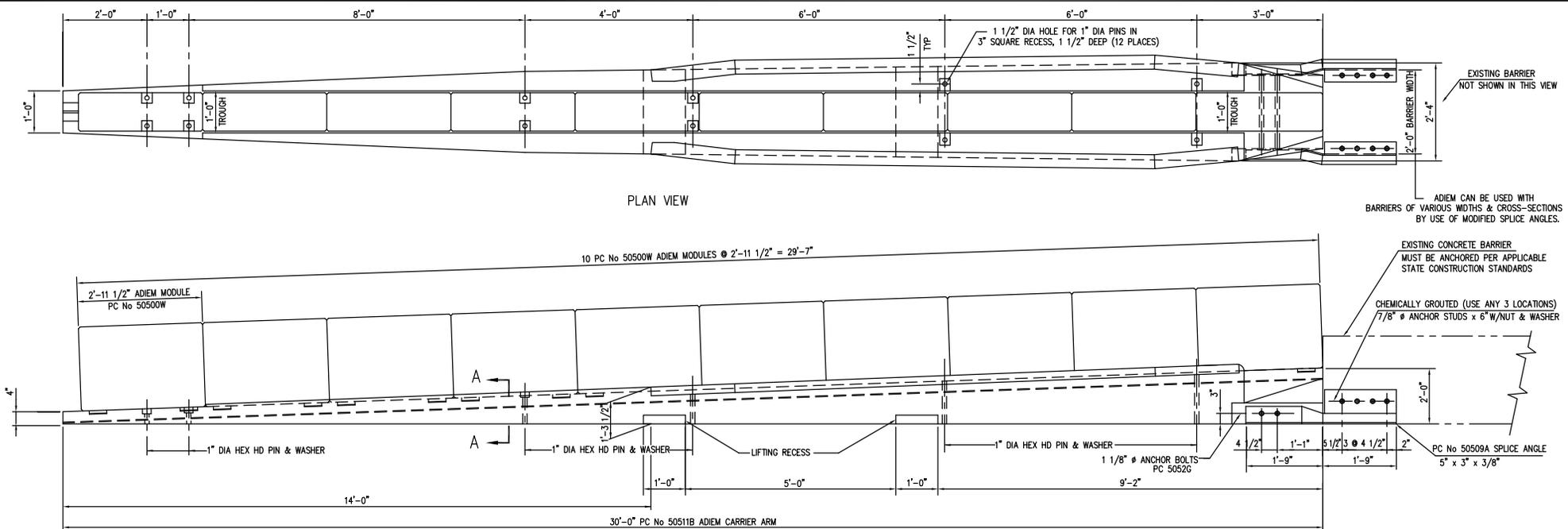
35 East Wacker Drive • Chicago, IL 60601
Tel: (312) 467-6750 • Fax: (312) 467-9625
www.energyabsorption.com

SAVING LIVES BY DESIGN



Distributed By:

General specifications for the QuadGuard System are subject to change without notice to reflect improvements and upgrades. Additional information is available in the Product Manual for this system. Contact Energy Absorption Systems for details.



| BILL OF MATERIAL | | | ANCHOR PIN SCHEDULE PER SURFACE (SEE NOTES 1-5) | | |
|------------------|--------------|-----------------------------|---|-----|------|
| PRODUCT CODE | QTY | DESCRIPTION | PCC | ACP | BASE |
| 50500W | 10 | MODULES x 2'-11 1/2" | | | |
| 50511B | 1 | BASE x 30'-0" | | | |
| 50508A | 1 | SPLICE ANGLE x 3'-6" RT | | | |
| 50509A | 1 | SPLICE ANGLE x 3'-6" LT | | | |
| 6549W | 1 | GARNA-THANE COATING (1 GAL) | | | |
| 5052G | 2 | 1 1/8" Ø x 25" HEX HD BOLT | | | |
| 4963C | 4 | 1 1/8" WASHER | | | |
| 3976C | 2 | 1 1/8" HEX NUT | | | |
| 4616C | 6 | 7/8" Ø STUD x 6" (FULL THD) | | | |
| 3725G | 6 | 7/8" WASHER | | | |
| 3735C | 6 | 7/8" HEX NUT | | | |
| 5206B | 1 | ADHESIVE HY150 CARTRIDGE | | | |
| 3900G | 12 | 1" WASHER | | | |
| 5665G | SEE SCHEDULE | 1" Ø HEX HD PIN x 48" | | | 4 |
| 5642G | | 1" Ø HEX HD PIN x 42" | | 4 | |
| 5650G | | 1" Ø HEX HD PIN x 36" | 4 | | 4 |
| 5641G | | 1" Ø HEX HD PIN x 30" | | 4 | 4 |
| 5646G | | 1" Ø HEX HD PIN x 24" | 4 | 4 | |
| 5643G | | 1" Ø HEX HD PIN x 18" | 4 | | |

- #### ADIEM INSTALLATION INSTRUCTIONS
- The ADIEM base is to be placed on a smooth surface (the same horizontal plane as the concrete barrier) and parallel to the mainline or ramp traveled lane(s).
 - Install anchor rods for ADIEM base by driving in soil or soft asphalt or driving in pre-drilled holes for hard asphalt or concrete (no epoxy required). The base should not be moved after the holes are drilled. The holes should be drilled using, at a minimum, a 35# hammer and minimum 36 inch long drill bit. (A 50# hammer is recommended.)
 - Attach connection brackets to base with two (2) 1 1/8" X 25" hex head bolts provided. Then field drill holes in the existing barrier and attach connection brackets to it with chemically grouted hardware provided.
 - Oil the ADIEM base track. Slide the modules onto the base. Be careful not to damage edges of the modules while sliding onto the base.
 - If the modules are scuffed or nicked, apply GARNA-THANE coating to the affected area.
 - Recommended tools and equipment:
 35/50# air hammer/drill
 1 3/8" Ø x 36" rock drill
 1 1/4" Ø x 12" rock drill
 Sledge hammer
 Oil
 Wrenches

| OPTIONAL ANCHOR ITEMS | |
|-----------------------|-----------------------------------|
| PRODUCT CODE | DESCRIPTION |
| 5205B | ADHESIVE DISPENSER |
| 5207B | MIXER HIT HY150 (NOZZLE) |
| 5208B | FILLER HIT HY150 (FILLER TUBE) |
| 5209B | BIT TE-C+ 11/16-18 (11/16" Ø BIT) |

- #### ALTERNATE ADIEM INSTALLATION INSTRUCTIONS
- At a holding site, the modules are slid into the ADIEM base after ciling the base track. Be careful not to damage the edges of the modules while sliding them onto the base.
 - If the modules are scuffed or nicked, apply GARNA-THANE coating to the affected area.
 - The unit is then delivered to the job site. The unit is to be placed on a smooth surface (the same horizontal slope as the concrete barrier) and parallel to the mainline or ramp traveled lane (s).
 - The front module should be removed so the remaining modules can be shifted for easy access for drilling the anchor rod holes.
 - Install anchor rods for ADIEM base by driving in soil or soft asphalt or driving in predrilled holes for hard asphalt or concrete (no epoxy required). The base should not be moved after the holes are drilled. The holes should be drilled using, at a minimum, a 35# hammer and a minimum 36 inch long drilling bit. (A 50# hammer is recommended.)
 - Attach connection brackets to base with two (2) 1 1/8" X 25" hex head bolts provided. Then field drill holes in the existing barrier and attach connection brackets to it with chemically grouted hardware provided.

- ★ EACH CARTRIDGE INCLUDES 1 EACH : MIXER HY 150 CARTRIDGE(NOZZLE) : FILLER HIT HY 150 (FILLER TUBE)
- NOTES:
 1) ANCHOR PINS ARE 1" DIA HEX HD, POINTED, GALV RODS (A307)
 2) PORTLAND CEMENT CONCRETE (PCC)
 3) ASPHALTIC CONCRETE (ACP)
 4) BASE AND/OR COMPACTED SOIL (BASE)
 5) ADIEM INSTALLATION NOT RECOMMENDED ON LOOSE SOIL.

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| REV. | CHKD. | BY | DATE | REMARKS |
|------|-------|----------|----------|---|
| 6 | B.T. | L.H. | 12/10/03 | REPLACED GROUT WITH HILTI, UPDATED DWG |
| 5 | L.H. | 03/12/03 | | DELETED NOTE #7, REVISED NOTE #3 |
| 4 | D.D. | L.H. | 12/17/99 | REVISED COATING, ADDED TITLE BLOCK |
| 3 | BT | 3-14-97 | | DELETED PC 5484, ADDED PC 5052, CHG QTY PC 3976 |
| 2 | BT | 2-14-97 | | GENERAL UPDATES |

ERECTION DETAILS

| | | |
|--|--|--------|
| DRAWN B.TAKACH CHECKED D.D. APPROVED DATE 3/19/96 ENG. FILE # SS349-01E SHEETS: E1 OF 1 DRAWING NO. SS 349 | TRINITY INDUSTRIES, INC. HIGHWAY SAFETY PRODUCTS 2525 STEMMONS FREEWAY, DALLAS, TX 75207 | REV. 8 |
|--|--|--------|

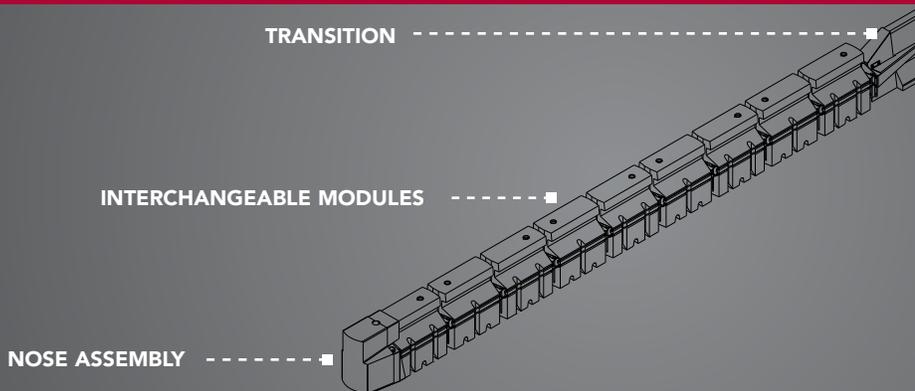
ABSORB 350® | NON-REDIRECTIVE CRASH CUSHION - SACRIFICIAL

- ANCHORLESS INSTALLATION - NO FOUNDATION REQUIRED
- COST EFFECTIVE PROTECTION FROM CONCRETE BARRIER ENDS
- WORLDWIDE PROVEN PERFORMANCE
- NCHRP 350 ACCEPTED



PHYSICAL SPECIFICATIONS

| | | |
|---------------------|-----------|----------|
| Classification | NR-S | |
| TL-3 Length | 32' | 9.7 m |
| Width | 24" | 610 mm |
| Height | 32" | 813 mm |
| Module Weight Empty | 110 lb. | 50 kg |
| Test Level | NCHRP 350 | TL 1/2/3 |



NARROW ANCHORLESS WATER FILLED CRASH CUSHION

No ground anchoring, the largest selection of transitions and modular technology allow the ABSORB 350 System to be used in multiple speed conditions. The ABSORB 350 System is ideal for contractors due to the ease of maintenance after an impact and quick deployment. At 24" (610 mm) wide, it is ideally suited for narrow areas where road and workspace is limited. The ABSORB 350 System is easy to restore after an impact because the System uses uniform modular components. The use of standardized modular components also helps to reduce inventory costs.

FREQUENTLY ASKED QUESTIONS

Can the nose be angled off the barrier to better face traffic?

Yes, as long as all of the ABSORB 350 modules remain pinned and connected. For larger angles, it is recommended that the last barrier section be moved to face traffic.

Can the ABSORB 350 System be moved while filled with water?

Yes, the System is rigid enough to be repositioned filled with water by sliding the optional wheel / jack assembly under each element.

What transitions are available?

Dozens of transition options are available, including attachments to; Standard NJ / J / K / F, Wide / X-Wide NJ, I-Lock, Smooth Face, JJ Hook, QMB, ArmorGuard®, Orion®, BarrierGuard® and ZoneGuard®.

Can the ABSORB 350 System be used during cold weather?

Since ABSORB 350 modules have no internal steel parts, the use of any approved anti icing chemical is acceptable.

FEATURES

- » Rapid deployment and retrieval
- » No ground anchoring required
- » Low initial price
- » Narrow footprint
- » Can be deployed on almost any road surface
- » Meets NCHRP 350 TL-1, TL-2, TL-3 test criteria
- » Easily transitioned to multiple widths and shapes of barriers
- » Nose and transition are reusable after most design impacts
- » Approved for use in permanent and work zone locations

DISTRIBUTED BY:



Lindsay Transportation Solutions Sales and Services, Inc.

180 River Road • Rio Vista, CA 94571 • +1 707.374.6800 U.S. Toll Free: 888.800.3691 • www.barrriersystemsinc.com

General details for the ABSORB 350 System are subject to change without notice to reflect improvements and upgrades.

Additional information is available from Lindsay Transportation Solutions Sales and Services, Inc. © Lindsay Transportation Solutions, Inc.

PT # ABS04-03252013

ACZ-350™

PORTABLE
TL-2 & TL-3
END
TREATMENT



OVERVIEW

The ACZ-350 System combines ease of use and NCHRP 350, gating, non-redirective TL-2 and TL-3 crash cushion performance for work zone protection. This partially reusable crash cushion can be easily transported, and installed with No Roadway Anchors.

SUPERIOR IMPACT PERFORMANCE

The unique design of the ACZ-350 systems protects errant drivers from impacting concrete barrier ends, and also contains the errant vehicle from vaulting into the workzone.

NON-REDIRECTIVE, GATING CRASH CUSHION SYSTEM

All Crash Cushions defined as Non-redirective and Gating require a clear zone. Clear Zones are areas behind the crash cushion that NO workers, machinery, obstructions or other debris could interfere with an errant vehicle. This area should also remain relatively flat. If there are any questions or concerns, please contact your local Energy Absorption Systems, Inc. representative.

FEATURES AND BENEFITS

- No Vaulting
- Safely contains errant vehicle
- Accommodates impacts up to 2,000 kg, (4,500 lbs) traveling at speeds up to 100 km/h (62 mph)
- Simple and Fast Installation
- Protects Permanent or Temporary, Steel or Concrete Barrier
- Ideal for Work Zones
- No Foundation or Anchoring

EASY CLEAN-UP
NARROW PROFILE
MINIMUM INTRUSION
LOW COST/ AFFORDABLE
QUICK/EASY TO MOVE

ACZ-350™



ENERGY ABSORPTION
SYSTEMS, INC.

SAVING LIVES BY DESIGN®

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EASY DEPLOYMENT AND REMOVAL

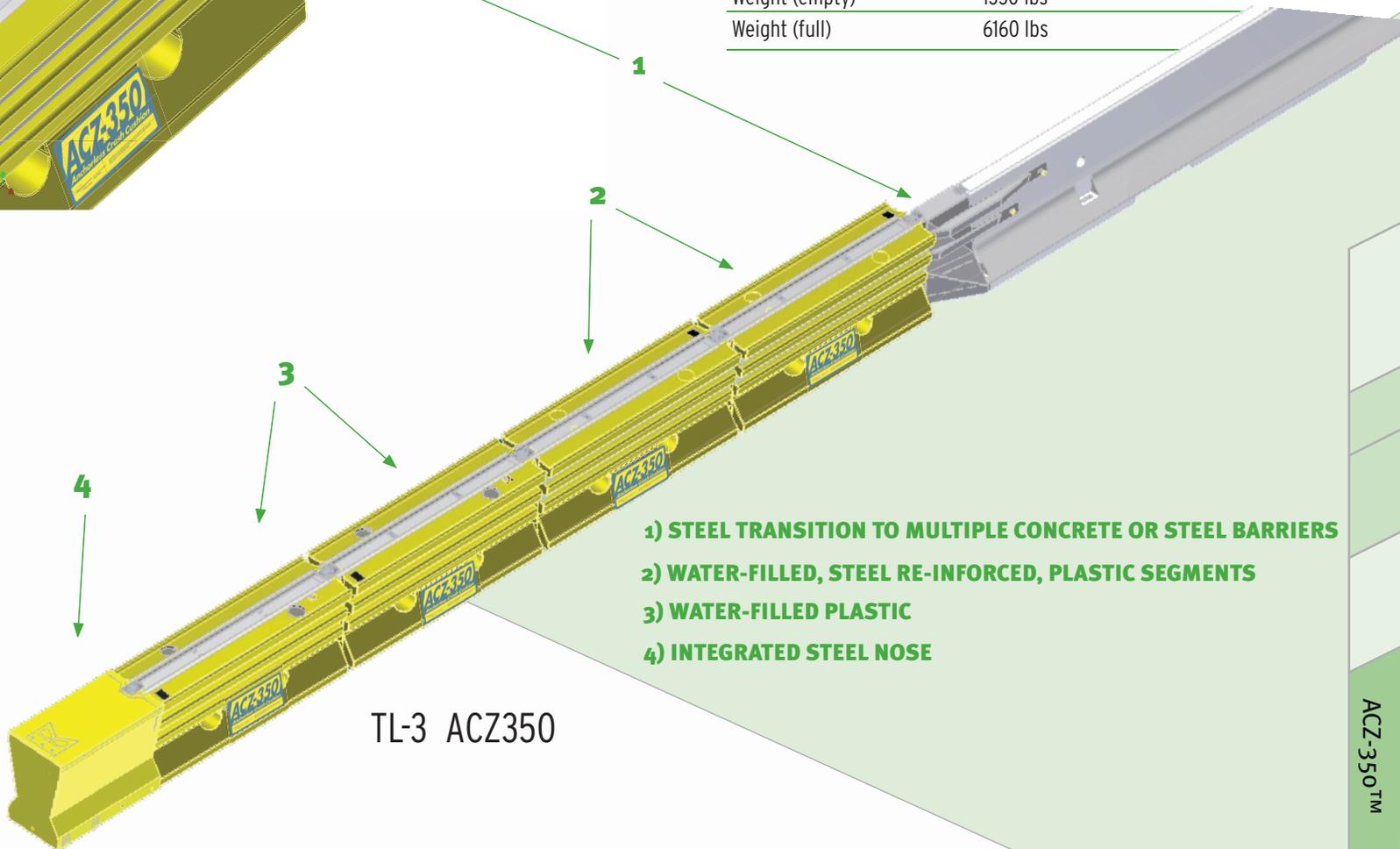
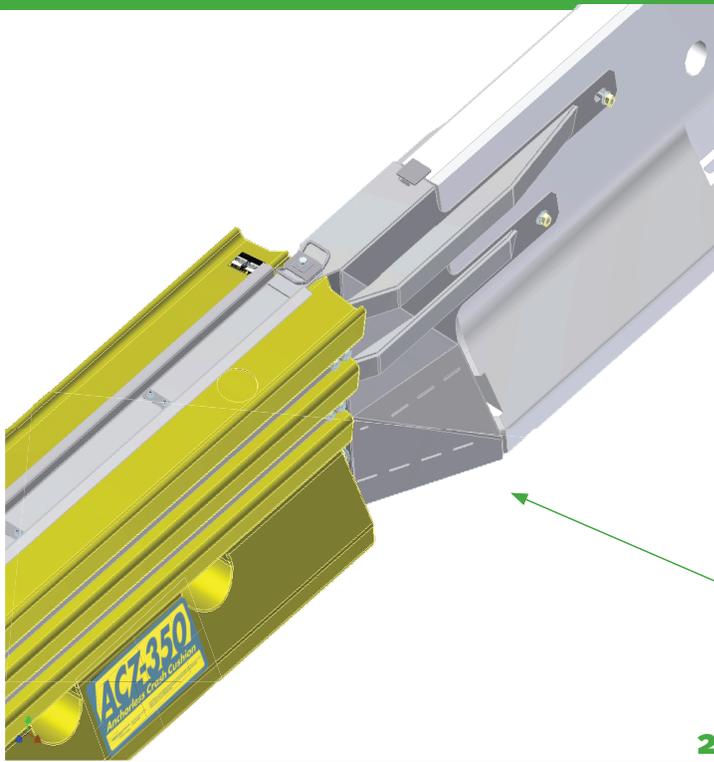
The ACZ-350 System can be easily unloaded and positioned without cranes or heavy equipment. Deployment involves three simple steps:

1. Unload
2. Position and pin barrier sections.
3. Fill Segments with water

SPECIFICATIONS

TL-3

| | |
|----------------|----------------|
| Length | 31'-7" (9.6 m) |
| Width | 1'-10" (.6m) |
| Height | 2' 9" (.8m) |
| Weight (empty) | 1350 lbs |
| Weight (full) | 6160 lbs |



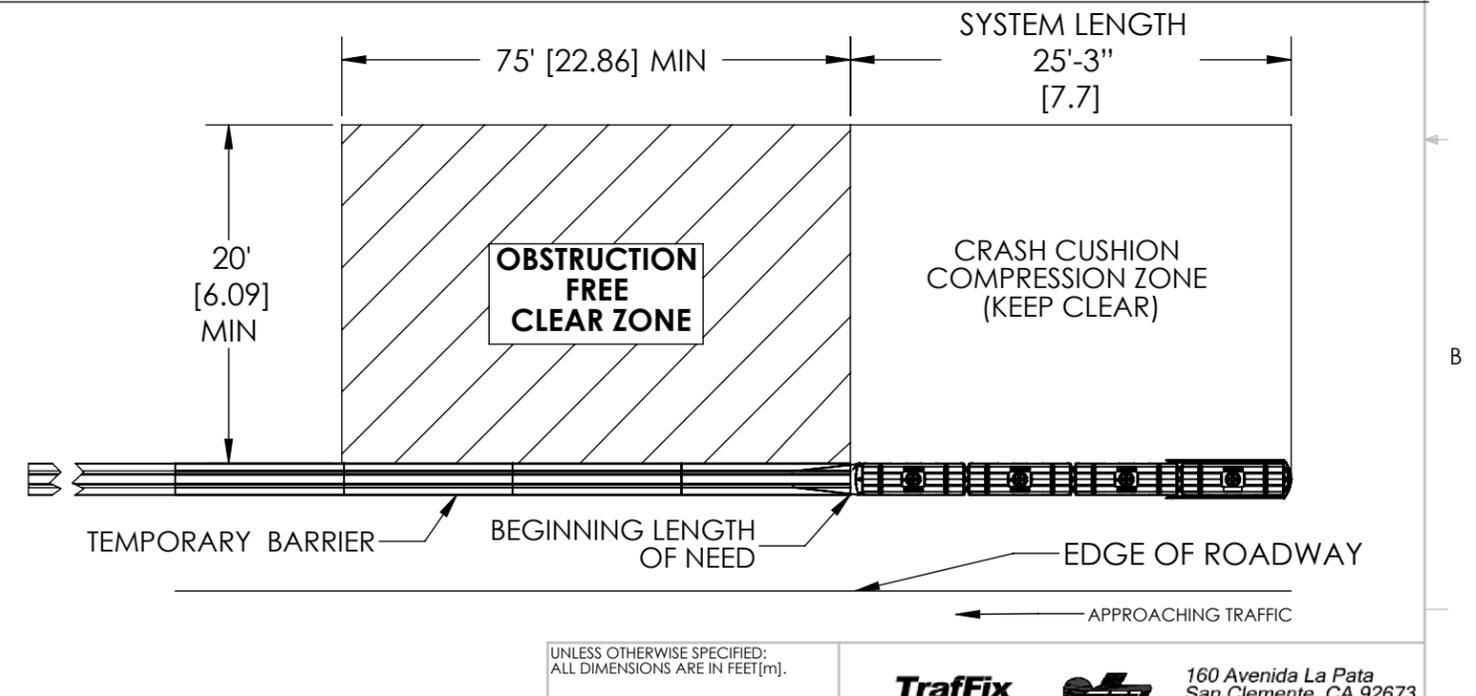
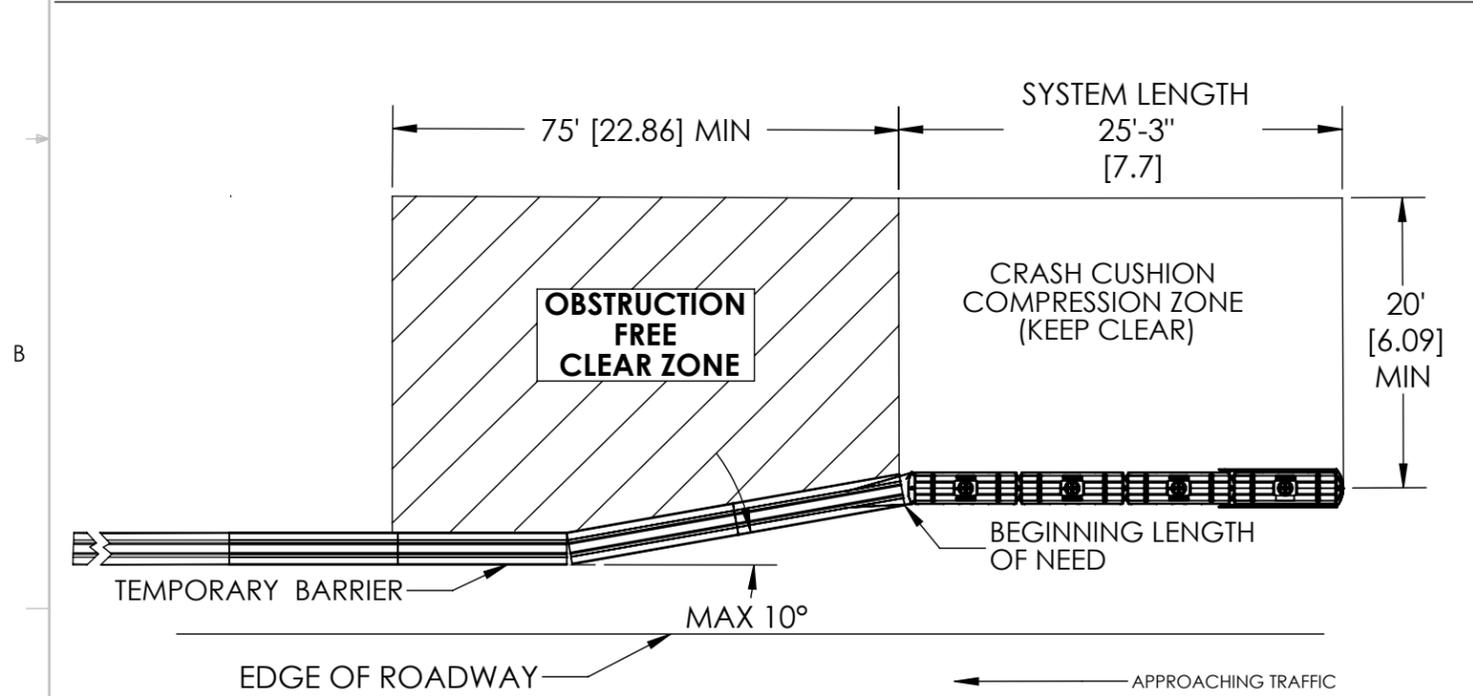
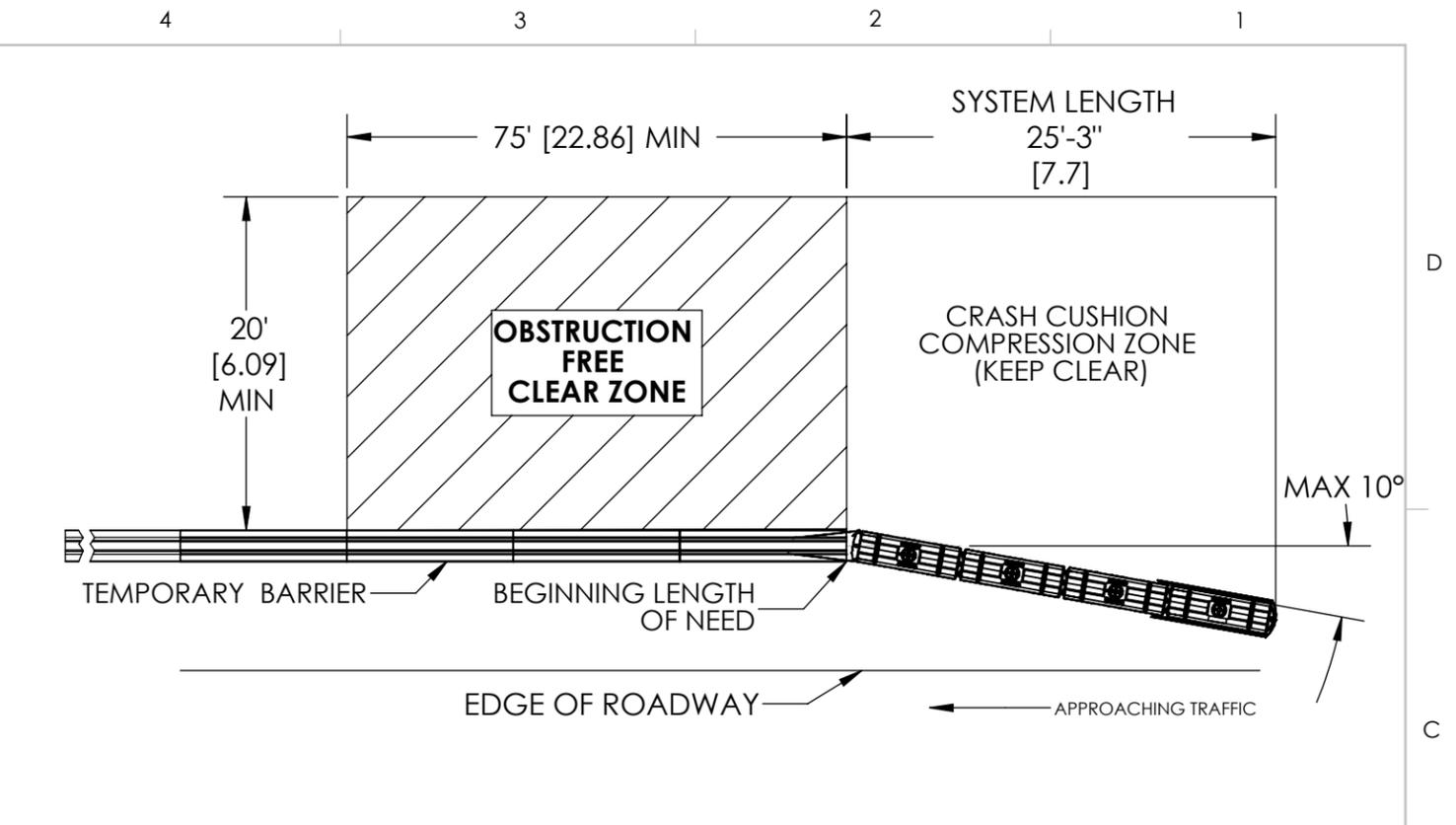
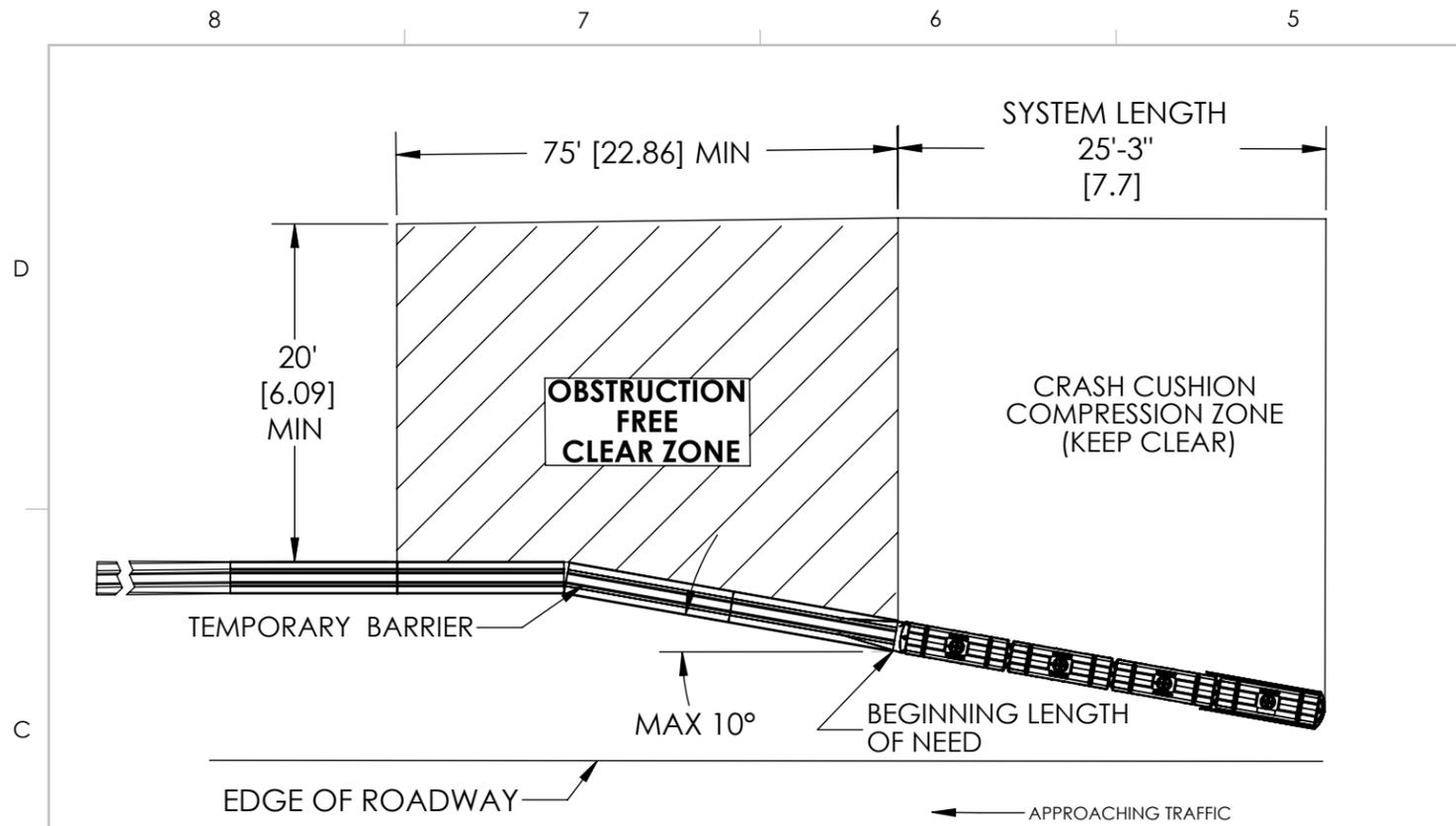
- 1) STEEL TRANSITION TO MULTIPLE CONCRETE OR STEEL BARRIERS
- 2) WATER-FILLED, STEEL RE-INFORCED, PLASTIC SEGMENTS
- 3) WATER-FILLED PLASTIC
- 4) INTEGRATED STEEL NOSE

TL-3 ACZ350

DISTRIBUTED BY:

SLED EURO TERMINAL MANUFACTURED BY TRAFFIX DEVICES, INC., 160 AVENIDA LA PATA, SAN CLEMENTE, CA 92673 (PHONE: 949-361-5663) AND DISTRIBUTED BY A&A SAFETY. (PHONE: 513-943-6100)

| DRAWING NUMBER | DRAWING NAME | MOST RECENT REVISION DATE |
|-----------------------|---|----------------------------------|
| 300-148 | SLED END TREATMENT ANCHORED/UNANCHORED CONFIGURATIONS | 6/9/2011 |
| 300-147 | SLED END TREATMENT SYSTEM | 6/10/2011 |
| 300-146 | SLED END TREATMENT TL3 | 6/10/2011 |
| 45044-Y | SLED END TREATMENT MODULE | 6/10/2011 |
| 45044-T | SLED END TREATMENT TRANSITION ASSEMBLY (PAGE 1 OF 6 ONLY) | 6/2/2010 |
| SPEED CONFIGURATION | TL-2 & TL-3 SPEED CONFIGURATION | -- |



NOTES:

1. MINIMUM LENGTHS OF TEMPORARY CONCRETE BARRIER ARE BASED ON UN-ANCHORED LENGTHS
2. SLED END TREATMENT SYSTEM DOES NOT REQUIRE ATTACHMENT TO A FOUNDATION. THE SYSTEM CAN BE LOCATED ON FIRM SOIL, ASPHALT, OR CONCRETE SURFACES.
3. SLED SYSTEM ANGLED TOWARD TRAFFIC AT ANGLE APPROPRIATE PER STATE AND LOCAL SPECIFICATION FOR GATING CRASH CUSHION.
4. RUN OF BARRIER SHALL MEET THE LENGTH OF NEED CALCULATION
5. SLED SYSTEM TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS AND SPECIFICATION
6. AN APPROPRIATE OBSTRUCTION FREE CLEAR ZONE MUST BE ADJACENT TO THE SLED SYSTEM. THE OBSTRUCTION FREE CLEAR ZONE REPRESENTS THE IMPACT TEST RECOVERY AREA OF APPROXIMATELY 75 FT LONG BY 20 FT WIDE.
7. IN ADDITION TO THE RECOMMENDED OBSTRUCTION FREE CLEAR ZONE, AN AREA DIRECTLY ADJACENT TO THE CRASH CUSHION (CRASH CUSHION COMPRESSION ZONE) MUST BE KEPT CLEAR

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN FEET [m].

Traffix Devices Inc.
160 Avenida La Pata
San Clemente, CA 92673
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www.traffixdevices.com

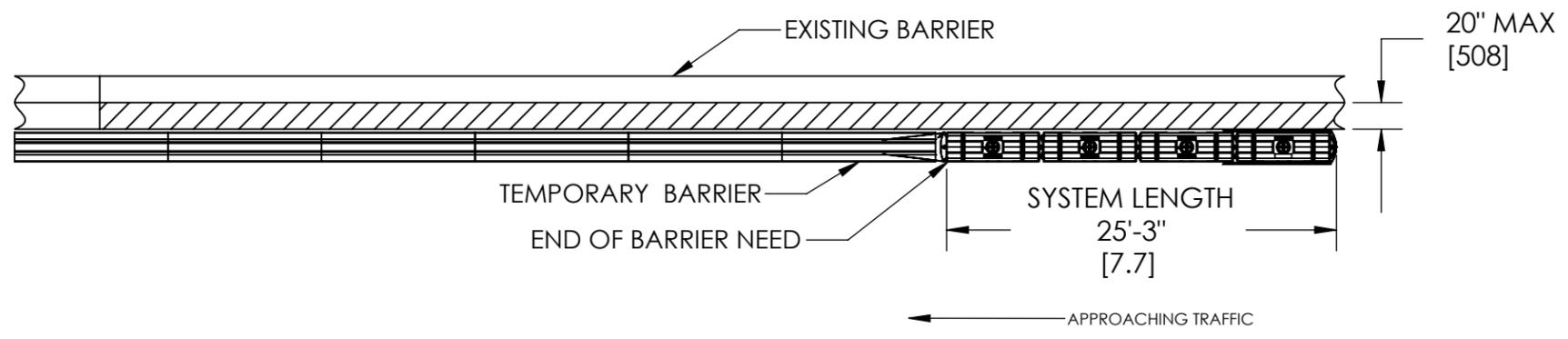
TITLE: **SLED END TREATMENT ANCHORED/UNANCHORED CONFIGURATIONS**

| | |
|--------------------------|-------------------|
| DRAWN BY: Mary Dralle | DATE: 06-09-11 |
| CHECKED BY: FA | DATE: 06-09-11 |
| APPROVED BY: FA | DATE: 06-09-11 |

| | | |
|------------------|----------------------------|-----------------|
| SIZE B | DWG. NO. 300-148 | REV C |
|------------------|----------------------------|-----------------|

8 7 6 5 4 3 2 1

D
C
B
A



ROADSIDE INSTALLATION ON APPROACH OF ELEVATED BRIDGES OR ROADWAYS
 PLACEMENT OF THE SLED SYSTEM ON ELEVATED BRIDGE DECKS OR ROADWAYS ADJACENT TO EXISTING RAIL OR BARRIER SHALL BE OFFSET AT
 LEAST 20 INCHES [0.5 METER] FROM THE EXISTING RAIL OR BARRIER.
 HATCHED AREA TO BE KEPT CLEAR OF ANY OBJECTS

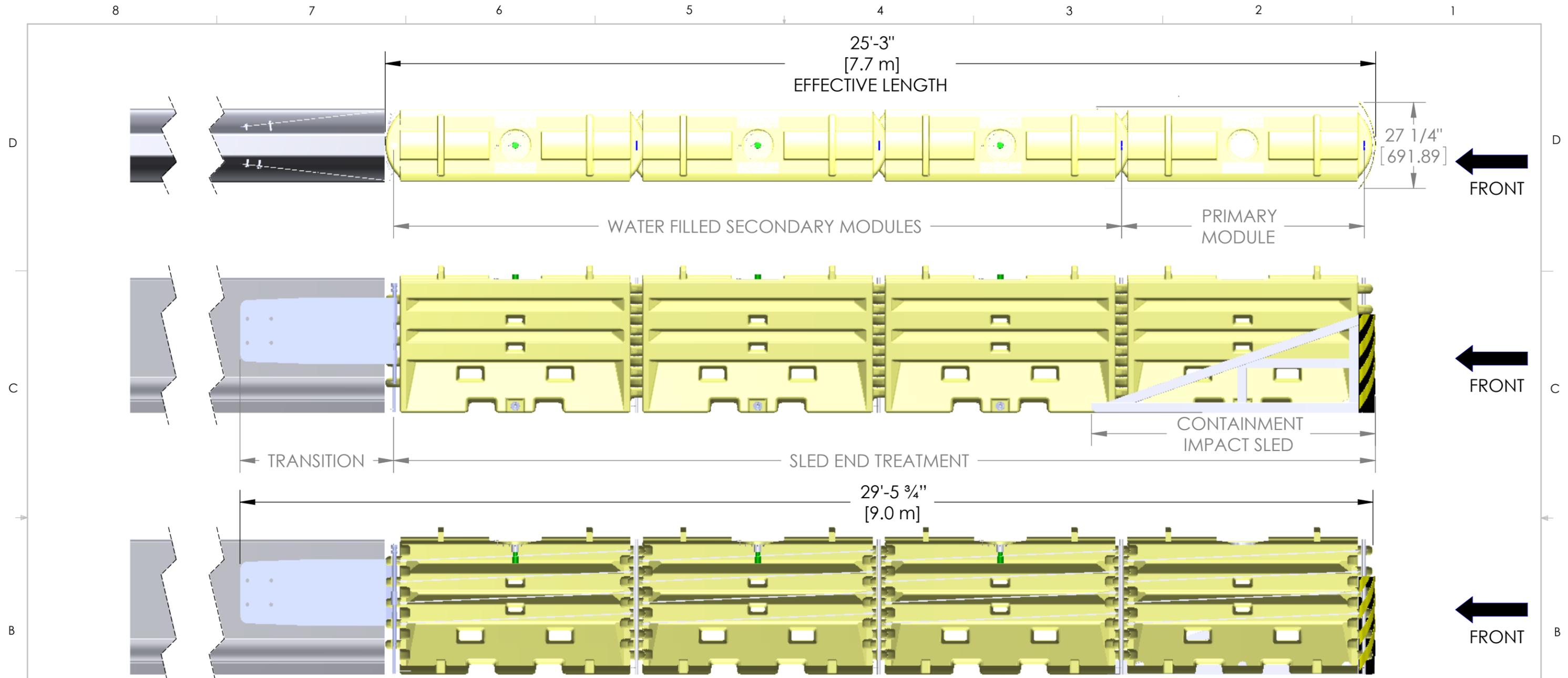
UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN FEET[m].

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FAX (949) 361-9205
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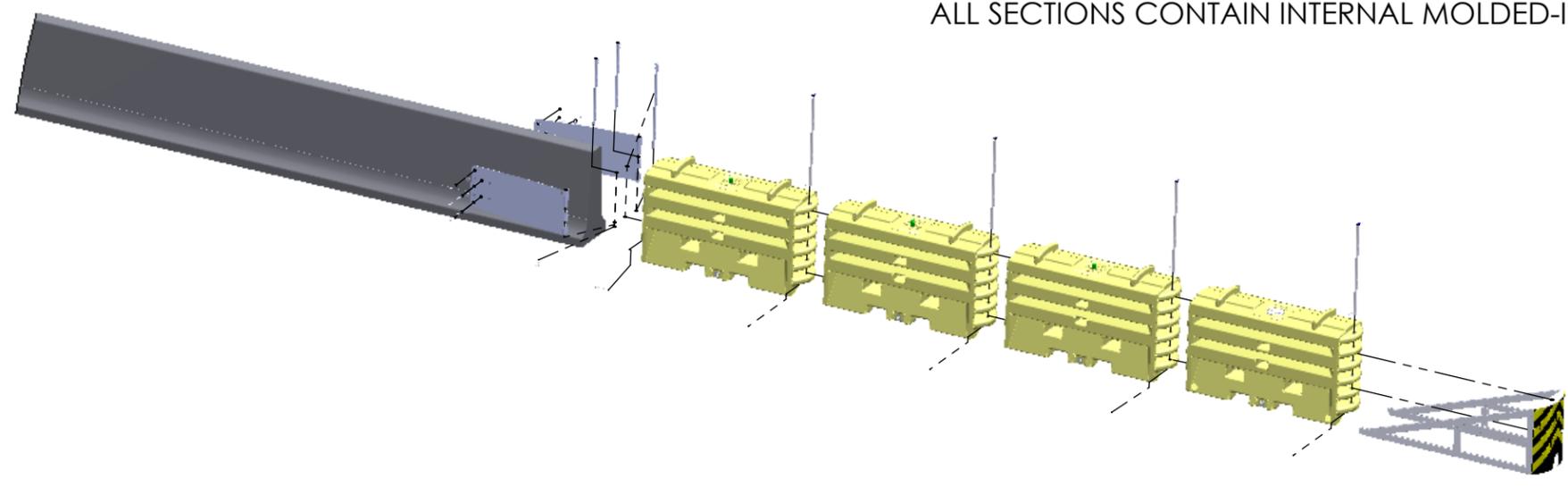
TITLE: SLED END TREATMENT
ANCHORED/UNANCHORED
CONFIGURATIONS

| | | | | |
|--------------------------|-------------------|------------------|----------------------------|-----------------|
| DRAWN BY: Mary Dralle | DATE: 06-09-11 | SIZE B | DWG. NO. 300-148 | REV C |
| CHECKED BY: FA | DATE: 06-09-11 | | | |
| APPROVED BY: FA | DATE: 06-09-11 | SHEET 2 OF 2 | | |

8 7 6 5 4 3 2 1



CUT AWAY SLED END TREATMENT
ALL SECTIONS CONTAIN INTERNAL MOLDED-IN CABLES.



UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES[mm].
TOLERANCES:
FRACTIONAL: X/X ± 1" [25.4mm]
DECIMAL: .000 ± .0625
DEGREES: ± 0.5°

Traffix Devices Inc.  160 Avenida La Pata
San Clemente, CA 92673
(949) 361-5663
FAX (949) 361-9205
www.traffixdevices.com

TITLE:
SLED END TREATMENT SYSTEM

DRAWN BY: Mary Dralle
CHECKED BY: FA
APPROVED BY: FA

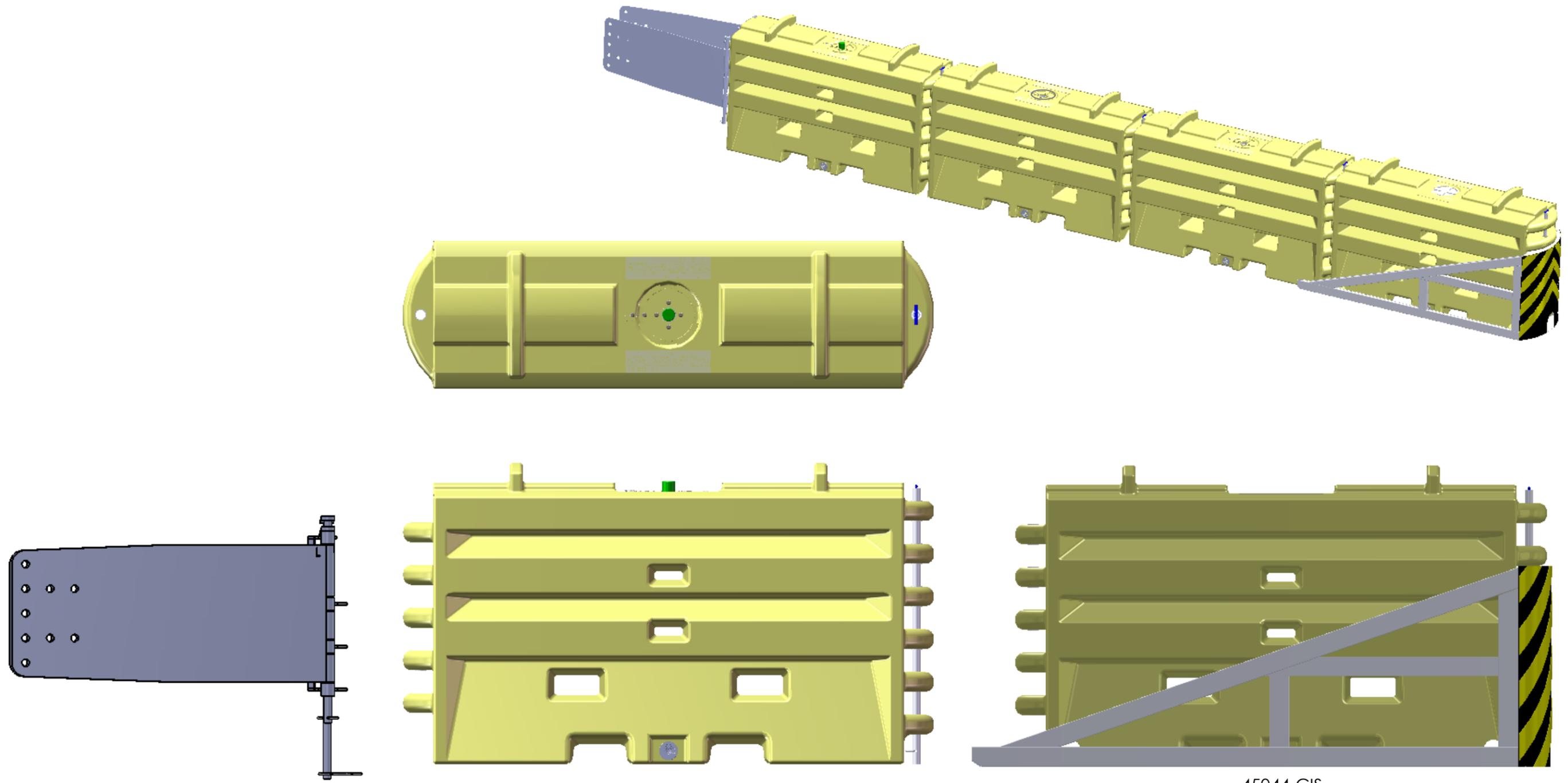
| | | | |
|----------------|---------------|-------------------------|--------------|
| DATE: 06-10-11 | SIZE B | DWG. NO. 300-147 | REV A |
| DATE: 06-10-11 | | | |
| DATE: 06-10-11 | | | |

SHEET 1 OF 1

8 7 6 5 4 3 2 1

D
C
B
A

D
C
B
A



45044-T

45044-Y

45044-CIS

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES[mm].
TOLERANCES:
FRACTIONAL: X/X ± 1/16" [1.6mm]
DECIMAL: .000 ± .0625
DEGREES: ± 0.5°

Traffix Devices Inc.  160 Avenida La Pata
San Clemente, CA 92673
(949) 361-5663
FAX (949) 361-9205
www.traffixdevices.com

TITLE:
SLED End Treatment TL3

| PN | DESCRIPTION | QTY |
|-------------|-------------------------------|-----|
| 45044-Y-CIS | Containment Impact Sled | 1 |
| 45044-Y | 43" SLED End Treatment Module | 3 |
| 45044-T | SLED End Treatment Transition | 1 |

DRAWN BY: Mary Dralle
CHECKED BY: GM
APPROVED BY: GM
DATE: 06-10-11
DATE: 06-10-11
DATE: 06-10-11

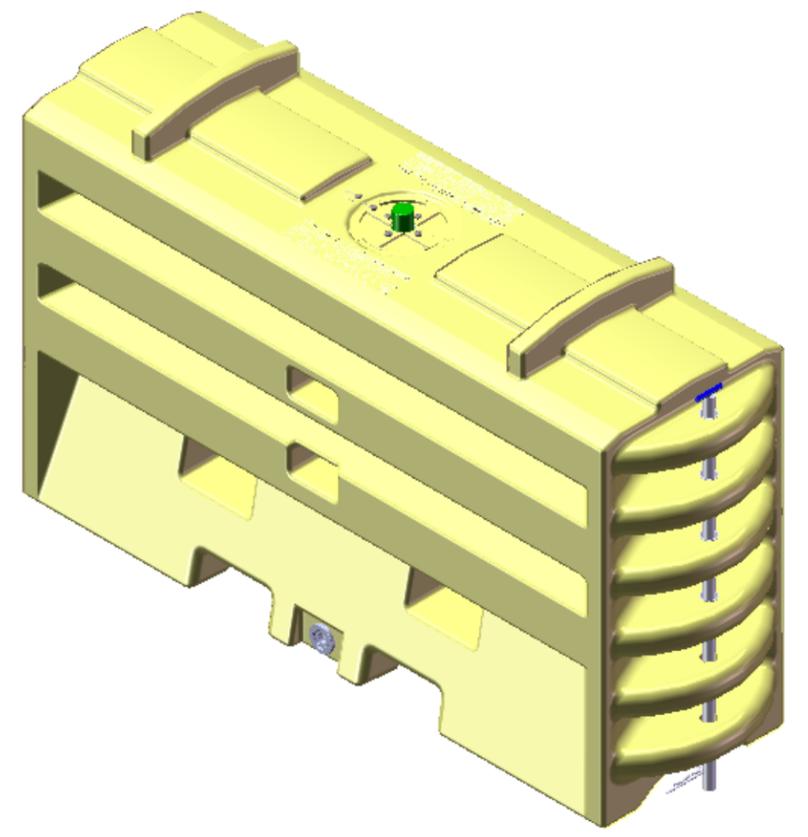
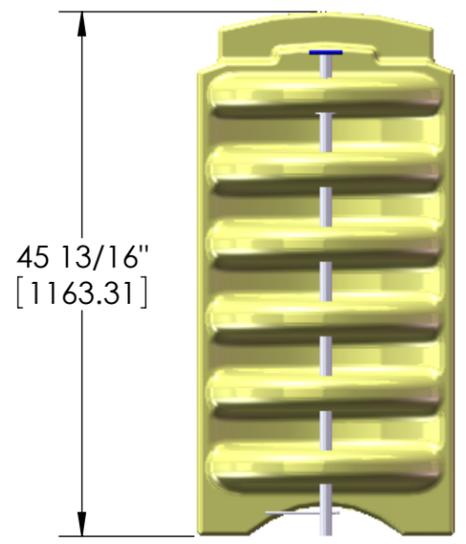
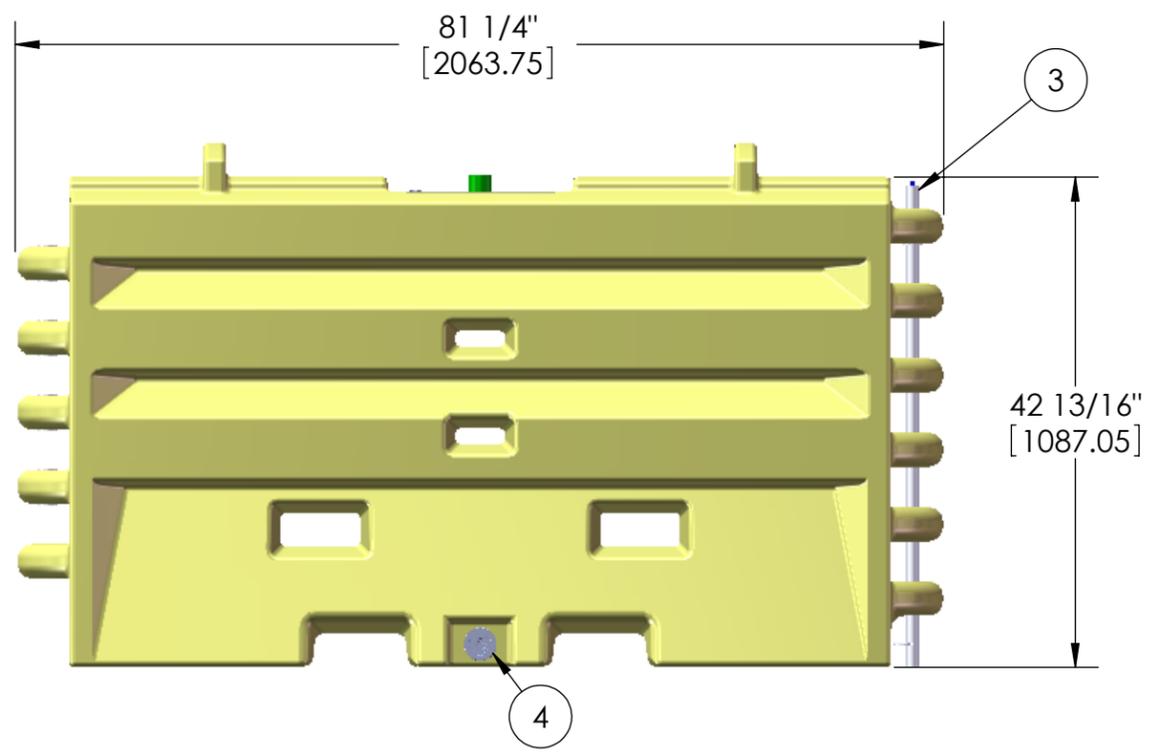
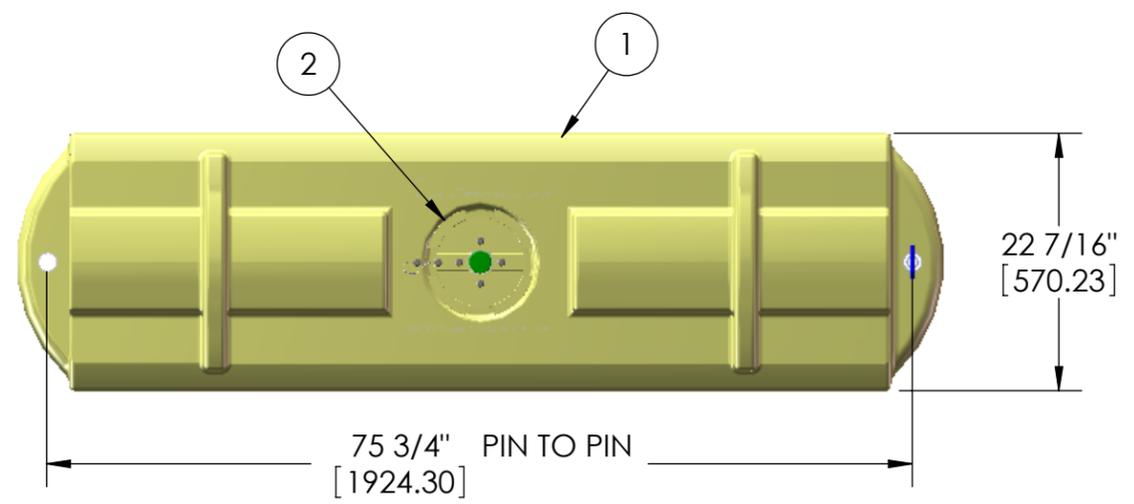
SIZE **B** DWG. NO. **300-146** REV **A**

8 7 6 5 4 3 2 1

8 7 6 5 4 3 2 1

D
C
B
A

D
C
B
A



SLED END TREATMENT
 UNITS: INCHES [mm]
 COLOR: YELLOW
 EMPTY WEIGHT: APPROX. 160 LBS. [73 kg]
 FILLED WEIGHT: APPROX. 2000 LBS [907 kg].
 FILL MATERIAL: WATER

| ITEM | DESCRIPTION | PN | QTY |
|------|---|------------|-----|
| 1 | 43" SLED End Treatment | 45044-YEL | 1 |
| 2 | Water Level Indicator Fill Cap | 18009-Y-I | 1 |
| 3 | Sentry Water Cable Barrier T-Pin w/Keeper Pin | 45043-CP | 1 |
| 4 | Water Wall Drain Plug | 45033-RC-B | 1 |

UNLESS OTHERWISE SPECIFIED:
 ALL DIMENSIONS ARE IN INCHES[mm].
 TOLERANCES:
 FRACTIONAL: X/X ± 1/16" [1.6mm]
 DECIMAL: .000 ± .0625
 DEGREES: ± 0.5°

Traffix Devices Inc.  160 Avenida La Pata
 San Clemente, CA 92673
 (949) 361-5663
 FAX (949) 361-9205
 www.traffixdevices.com

TITLE: **SLED END TREATMENT MODULE**

| | | |
|------------------|----------------------------|-----------------|
| SIZE B | DWG. NO. 45044-Y | REV A |
|------------------|----------------------------|-----------------|

SHEET 1 OF 1

DRAWN BY: Mary Dralle
 CHECKED BY: FA
 APPROVED BY: FA

DATE: 06-10-11
 DATE: 06-10-11
 DATE: 06-10-11

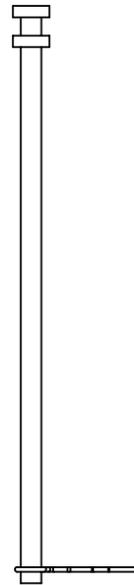
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8 7 6 5 4 3 2 1

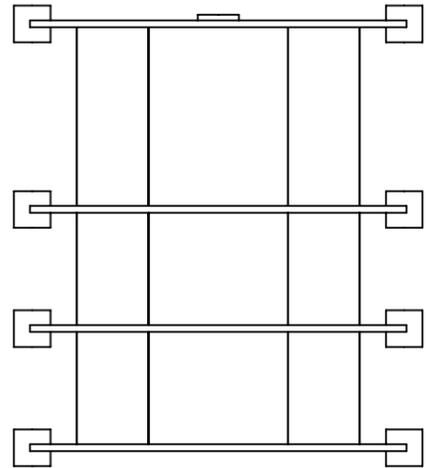
D
C
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D
C
B
A

45145
SLED TRANSITION
SHORT DROP PIN



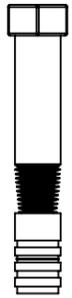
45130
SLED TRANSITION FRAME



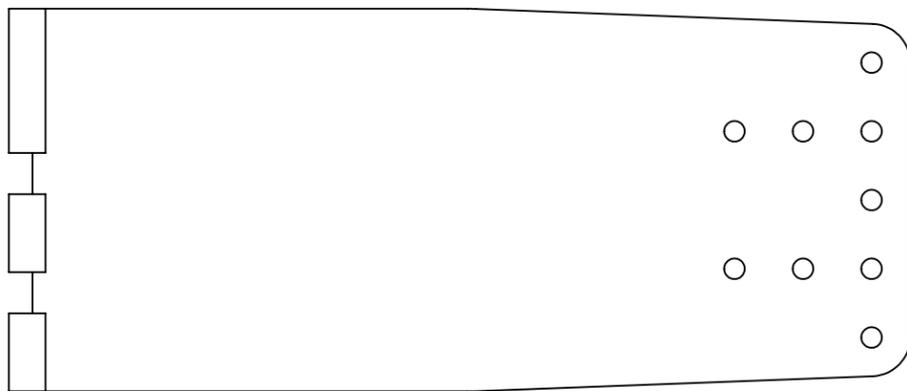
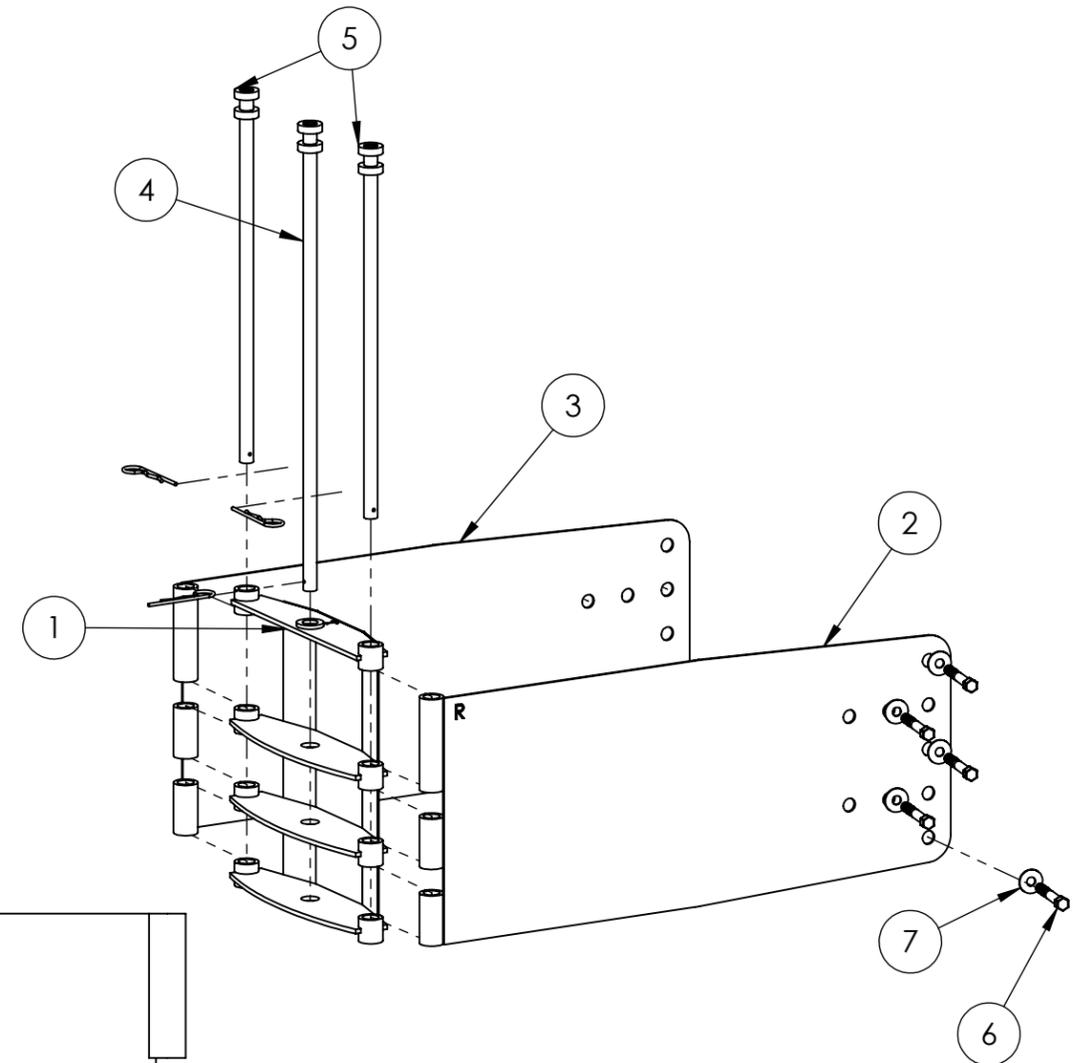
45140
SLED TRANSITION
LONG DROP PIN



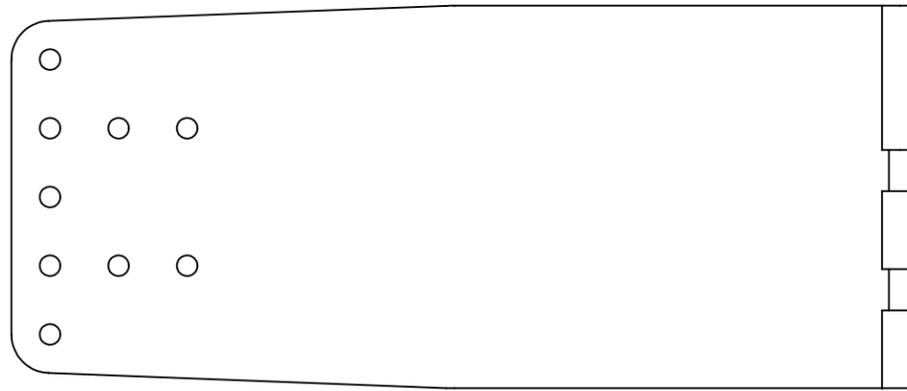
45047
BOLT,
TAPER ANCHOR,
3/4" X 4-1/8"



12060
WASHER, FLAT,
3/4"ID X 2"OD



45150L
SLED TRANSITION PANEL, LEFT



45150R
SLED TRANSITION PANEL, RIGHT

2. FINISH: HOT DIP GALVANIZE
1. MATERIAL: A36 AND A513 STEEL
NOTES: UNLESS OTHERWISE SPECIFIED

| ITEM NO. | DESCRIPTION | PN | QTY |
|----------|-----------------------------------|--------|-----|
| 1 | SLED TRANSITION FRAME ASSY | 45130 | 1 |
| 2 | RIGHT SLED TRANSITION PANEL ASSY | 45150R | 1 |
| 3 | LEFT SLED TRANSITION PANEL ASSY | 45150L | 1 |
| 4 | SLED TRANSITION LONG DROP PIN | 45140 | 1 |
| 5 | SLED TRANSITION SHORT DROP PIN | 45145 | 2 |
| 6 | BOLT, TAPER ANCHOR, 3/4" X 4-1/8" | 45047 | 9 |
| 7 | WASHER, FLAT, 3/4"ID X 2"OD | 12060 | 9 |

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE IN INCHES[mm].
TOLERANCES:
FRACTIONAL: X/X ± 1/16" [1.6mm]
DECIMAL: .000 ± .0625
DEGREES: ± 0.5°

DRAWN BY: Mary Dralle
CHECKED BY: FA
APPROVED BY: FA
DATE: 06-02-10
DATE: 06-02-10
DATE: 06-02-10

Traffix Devices Inc.
160 Avenida La Pata
San Clemente, CA 92673
(949) 361-5663
FAX (949) 361-9205
www.traffixdevices.com

TITLE: **SLED END TREATMENT TRANSITION ASSY**

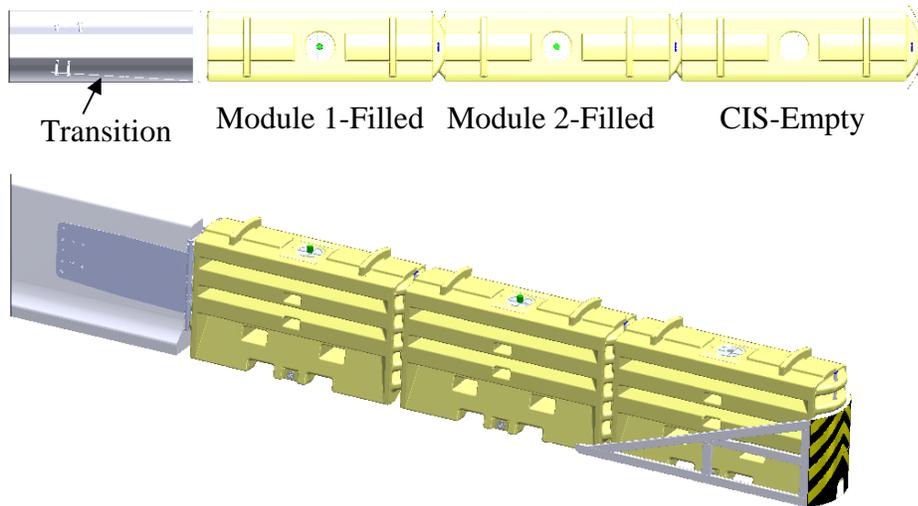
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SHEET 1 OF 6

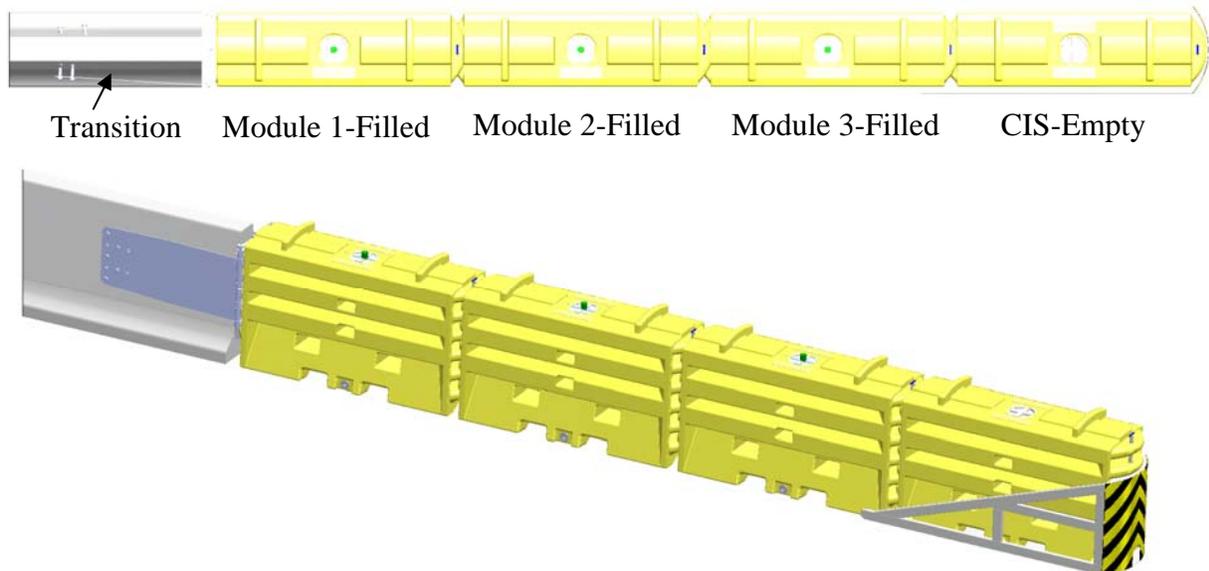
8 7 6 5 4 3 2 1

Speed Configuration

TL-2 Configuration



TL-3 Configuration



* CIS is ALWAYS empty.

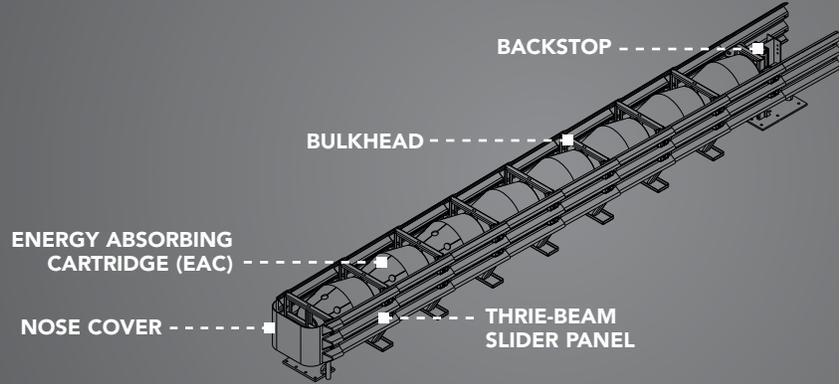
UNIVERSAL TAU-II® | REDIRECTIVE, NON-GATING
CRASH CUSHION - PARTIALLY REUSABLE

- SHIELDS MULTIPLE WIDTH HAZARDS
- PARTIALLY REUSABLE DESIGN
- QUICK AND EASY TO INSTALL
- NCHRP 350 ACCEPTED



PHYSICAL SPECIFICATIONS

| | | |
|----------------|-----------|-----------|
| Classification | R-NG-PR | |
| TL-3 Length | 23' 10" | 7.3 m |
| Width | 27 - 102" | 0.7 - 3 m |
| Height | 31 ½" | 800 mm |
| TL-3 Weight | 2700 lb. | 1225 kg |
| Test Level | NCHRP 350 | TL 1/2/3 |



DESIGNED TO SHIELD MULTIPLE WIDTH HAZARDS

The Redirective, Non-Gating, Partially Reusable (R-NG-PR) Universal TAU-II Crash Cushion consists of a full family of systems designed to meet the requirements of NCHRP Report 350, TL-2 & TL-3 to shield almost any width hazard. The system is available in lengths and capacities for both low and high speed applications from 30-75 mph (50-120 km/h). The Universal TAU-II System can shield hazards with widths up to 102" (2.6 m). The Universal TAU-II System is ideally suited for roadway hazards located on the side of a road or in a median. Ease of installation, low profile foundation, numerous transition options, and low priced replacement components make the Universal TAU-II System an ideal crash cushion to shield most roadside and median hazards.

FREQUENTLY ASKED QUESTIONS

What components of the Universal TAU-II System need to be replaced after a design impact?

Typically only the damaged cartridges will need to be replaced. The nose and slider panels are designed to withstand multiple design impacts.

What type of foundation is needed for the Universal TAU-II System?

A 6" (152 mm) reinforced concrete pad is required. The Universal TAU-II System can also be ordered to be installed on asphalt.

What transitions are available?

Since Universal TAU-II transitions are non-proprietary, all approved three-beam barrier transitions will work with the system.

Can the TAU-II System be used for low and high speeds?

The Universal TAU-II System is designed for speeds from 31 to 75 mph (50 to 120 km/h).

FEATURES

- » High speed designs available
- » Minimum number of anchors needed to secure the system
- » Can be installed over bridge expansion joints
- » Low profile foundation ideal for deployment on bridge decks
- » Numerous transition options
- » Low priced replacement components
- » Standard reusable nose
- » Designed for use with standard, three beam transitions

DISTRIBUTED BY:



Lindsay Transportation Solutions Sales and Services, Inc.

180 River Road • Rio Vista, CA 94571 • +1 707.374.6800 U.S. Toll Free: 888.800.3691 • www.barrriersystemsinc.com

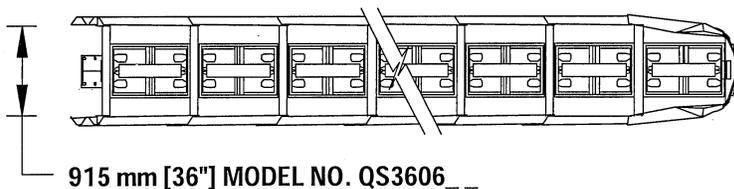
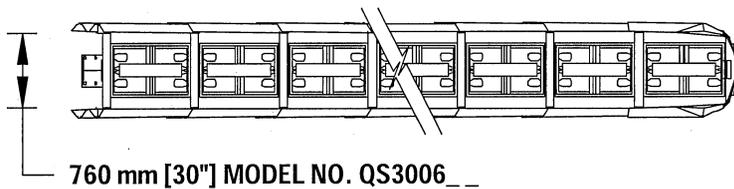
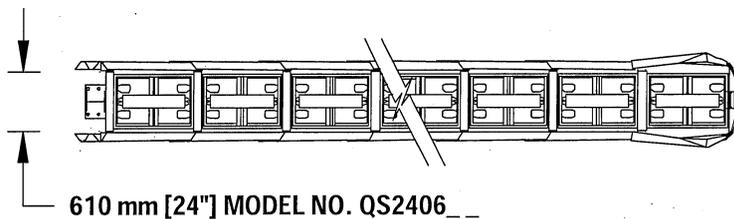
General details for the Universal TAU-II System are subject to change without notice to reflect improvements and upgrades.

Additional information is available from Lindsay Transportation Solutions Sales and Services, Inc. © Lindsay Transportation Solutions, Inc.

PT # TAU04-03252013

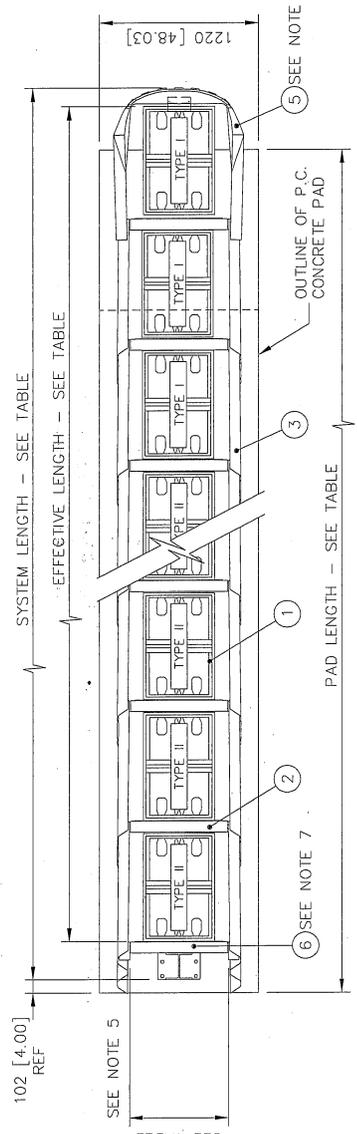
QuadGuard[®] System

QUADGUARD[®] SYSTEMS FOR NARROW HAZARDS PERMANENT

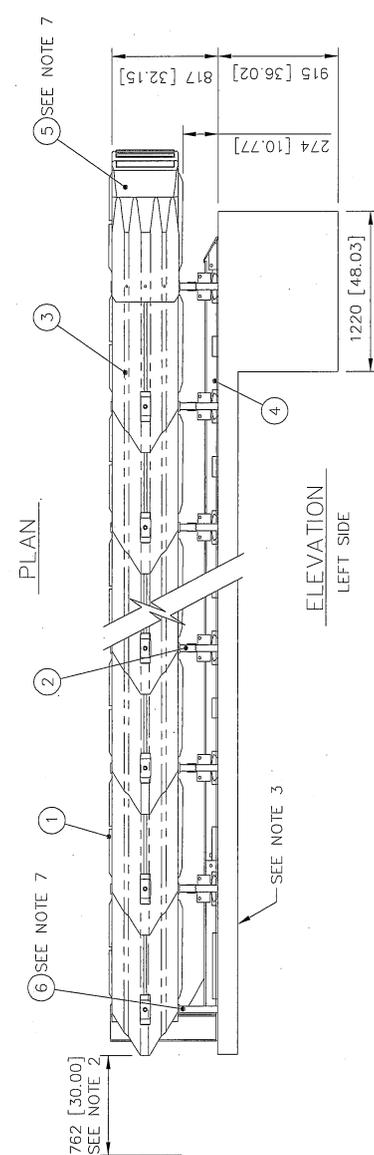


Note: The drawing package provided with the QuadGuard System is site specific and should take precedence over the drawing package provided in this manual. These drawings are for reference only and may not be up to date.

TRAFFIC



TRAFFIC



- NOTES:
- IN COMPLIANCE WITH THE AASHTO 1996 ROADSIDE DESIGN GUIDE, MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
 - PROVISION SHALL BE MADE FOR REAR FENDER PANELS TO SLIDE REARWARD UPON IMPACT 762 [30.00] MIN.
 - 150 [6.00] MIN. REINFORCED 28 MPa [4000 PSI] P.C. CONCRETE PAD OR 200 [8.00] MIN. NON-REINFORCED 28 MPa [4000 PSI] P.C. CONCRETE ROADWAY, MEASURING AT LEAST 3.66 m [12'-0"] WIDE BY 15.24 m [50'-0"] LONG.
 - SEE THE "QUADGUARD SYSTEM DESIGN MANUAL", FOR A DESCRIPTION OF ITS IMPACT PERFORMANCE CHARACTERISTICS AND DESIGN LIMITATIONS BEFORE PLACING A SYSTEM AT A GIVEN SITE. INFORMATION AND COPIES OF ABOVE MANUAL ARE AVAILABLE BY CALLING CUSTOMER SERVICE DEPARTMENT AT (888) 323-6374.
 - WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION FROM THE QUADGUARD SYSTEM TO THE OBJECT BEING SHIELDED.
 - UNITS OF MEASUREMENT ARE MILLIMETERS [INCHES], UNLESS OTHERWISE NOTED.
 - BACKUP AND NOSE ASSEMBLIES NOT INCLUDED IN MODEL NUMBER, ORDER SEPARATELY.
 - THE NUMBER OF BAYS INDICATED IN THE TABLE IS BASED ON CALCULATED VALUES TO ENSURE ADEQUATE SYSTEM CAPACITY TO DISSIPATE THE LONGITUDINAL IMPACT ENERGY OF A 2000 kg VEHICLE TRAVELING AT THE SPEED INDICATED.
 - THE SIX BAY SYSTEM HAS BEEN FULLY TESTED AT 100 km/h UNDER THE FULL 8 TEST MATRIX OF NCHRP 350 TL-3. SYSTEMS LONGER THAN SIX BAYS SHALL ALSO BE CAPABLE OF MEETING THE OCCUPANT RISK CRITERIA AS RECOMMENDED IN NCHRP 350 FOR VEHICLES WEIGHING 2000 kg IMPACTING HEAD ON AT THE SPEED INDICATED IN THE TABLE.

* G = GREY or Y = YELLOW

| BAYS | 610 [24"] WIDTH | 762 [30"] WIDTH | 914 [36"] WIDTH | SYSTEM LENGTH | EFFECTIVE LENGTH | PAD LENGTH | MAX DESIGN SPEED | # OF CARTRIDGES | |
|------|-----------------|-----------------|-----------------|----------------|------------------|----------------|------------------|-----------------|---------|
| | MODEL# | MODEL# | MODEL# | m | ft-in | m | km/h [MPH] | TYPE I | TYPE II |
| 1 | Q52401* | Q53001* | Q53601* | 2.16 [7'-1"] | 1.73 [5'-8"] | 2.74 [9'-0"] | 40 [25] | 2 | 0 |
| 2 | Q52402* | Q53002* | Q53602* | 3.08 [10'-1"] | 2.64 [8'-8"] | 2.74 [9'-0"] | 60 [37] | 2 | 1 |
| 3 | Q52403* | Q53003* | Q53603* | 4.00 [13'-1"] | 3.56 [11'-8"] | 3.66 [12'-0"] | 70 [44] | 3 | 1 |
| 4 | Q52404* | Q53004* | Q53604* | 4.91 [16'-1"] | 4.47 [14'-8"] | 4.57 [15'-0"] | 80 [50] | 3 | 2 |
| 5 | Q52405* | Q53005* | Q53605* | 5.83 [19'-1"] | 5.38 [17'-8"] | 5.49 [18'-0"] | 90 [56] | 4 | 2 |
| 6 | Q52406* | Q53006* | Q53606* | 6.74 [22'-1"] | 6.30 [20'-8"] | 6.40 [21'-0"] | 100 [62] | 4 | 3 |
| 7 | Q52407* | Q53007* | Q53607* | 7.65 [25'-1"] | 7.21 [23'-8"] | 7.32 [24'-0"] | 105 [65] | 4 | 4 |
| 8 | Q52408* | Q53008* | Q53608* | 8.57 [28'-1"] | 8.13 [26'-8"] | 8.23 [27'-0"] | 110 [68] | 4 | 5 |
| 9 | Q52409* | Q53009* | Q53609* | 9.49 [31'-1"] | 9.04 [29'-8"] | 9.14 [30'-0"] | 115 [71] | 4 | 6 |
| 10 | Q52410* | Q53010* | Q53610* | 10.40 [34'-1"] | 9.96 [32'-8"] | 10.06 [33'-0"] | 120 [75] | 5 | 6 |
| 11 | Q52411* | Q53011* | Q53611* | 11.32 [37'-1"] | 10.87 [35'-8"] | 10.97 [36'-0"] | 120 [75] | 5 | 7 |
| 12 | Q52412* | Q53012* | Q53612* | 12.23 [40'-1"] | 11.79 [38'-8"] | 11.89 [39'-0"] | 120 [75] | 5 | 8 |

UNIDIRECTIONAL

ENERGY ABSORPTION SYSTEMS, INC.
ENGINEERING AND RESEARCH DEPARTMENT

QUADGUARD® SYSTEM
W/ TENSION STRUT BACKUP

SCALE 1=40

SHEET 1 of 1

| | | | |
|-----------|---------------|-------|----------|
| DESIGNED: | S. LEWIS | DATE: | 03/21/96 |
| CHECKED: | J. MACHADO | DATE: | 06/07/96 |
| APPROVED: | JMV/MHO | DATE: | 06/07/96 |
| CAD FILE: | S. TRAGESER | DATE: | 06/07/96 |
| PROJECT: | QSTSCVR-U.dwg | | |

REFERENCES

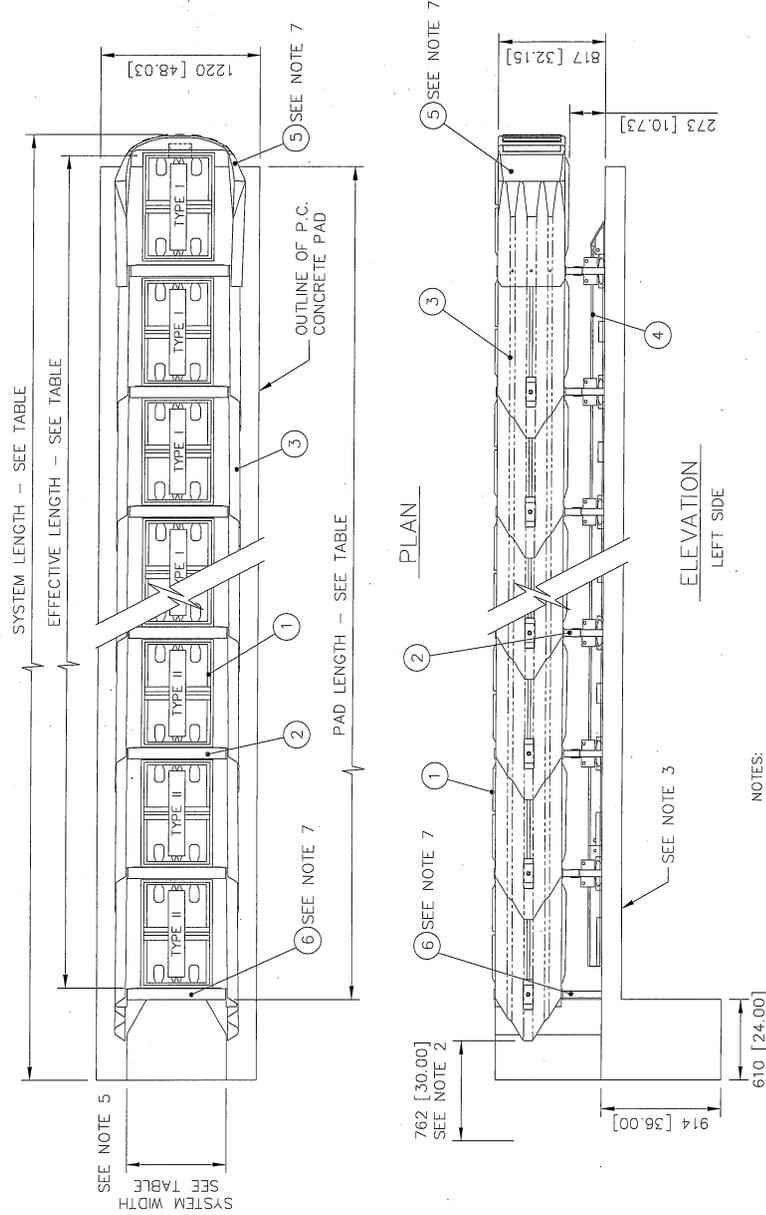
| | |
|--------------------|----------|
| DIAPHRAGM ASSY. | 35-40-07 |
| NOSE ASSY. | 35-40-05 |
| FENDER PANEL ASSY. | 35-40-04 |
| BACKUP ASSY. | 35-40-03 |
| RAIL ASSY. | 35-40-06 |
| CONCRETE PAD | 35-40-11 |

| Revisions | Date | Rev. | By | Ckd | App. |
|-------------------------------|----------|------|-----|-----|------|
| REVISED NOTE 4, ADDED NOTE 8. | 03/03/99 | F | LWC | BB | SPT |
| ADDED NOTE 9. | 12/3/99 | C | DK | DO | SPT |
| REVISED NOTE 3 | 9/25/01 | H | DDW | STI | SPT |

MONORAIL (4) QUADGUARD CARTRIDGE (4)
NOSE ASSEMBLY (5) DIAPHRAGM (5)
BACKUP (6) FENDER PANEL (6)

TRAFFIC

TRAFFIC



- NOTES:
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 3. 150 [6.00] MIN. REINFORCED 28 MPa [4000 PSI] P.C. CONCRETE PAD OR 200 [8.00] MIN. NON-REINFORCED 28 MPa [4000 PSI] P.C. CONCRETE ROADWAY, MEASURING AT LEAST 3.66 m [12'-0"] WIDE BY 15.24 m [50'-0"] LONG.
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| BAYS | 610[24] WIDTH MODEL# | 762[30] WIDTH MODEL# | 914[36] WIDTH MODEL# | SYSTEM LENGTH | EFFECTIVE LENGTH | MAX DESIGN SPEED | # OF CARTRIDGES | | |
|------|----------------------|----------------------|----------------------|----------------|------------------|------------------|-----------------|---------|----------|
| | | | | | | | TYPE I | TYPE II | TYPE III |
| 1 | OS2401* | OS3001* | OS3601* | 2.59 [8'-6"] | 1.73 [5'-8"] | 40 [25] | 2 | 0 | 0 |
| 2 | OS2402* | OS3002* | OS3602* | 3.51 [11'-6"] | 2.64 [8'-8"] | 60 [37] | 2 | 1 | 1 |
| 3 | OS2403* | OS3003* | OS3603* | 4.42 [14'-6"] | 3.56 [11'-8"] | 70 [44] | 3 | 1 | 2 |
| 4 | OS2404* | OS3004* | OS3604* | 5.33 [17'-6"] | 4.47 [14'-8"] | 80 [50] | 3 | 2 | 2 |
| 5 | OS2405* | OS3005* | OS3605* | 6.25 [20'-6"] | 5.38 [17'-8"] | 90 [56] | 4 | 2 | 2 |
| 6 | OS2406* | OS3006* | OS3606* | 7.16 [23'-6"] | 6.30 [20'-8"] | 100 [62] | 4 | 3 | 3 |
| 7 | OS2407* | OS3007* | OS3607* | 8.08 [26'-6"] | 7.21 [23'-8"] | 105 [65] | 4 | 4 | 4 |
| 8 | OS2408* | OS3008* | OS3608* | 8.99 [29'-6"] | 8.13 [26'-8"] | 110 [68] | 4 | 5 | 5 |
| 9 | OS2409* | OS3009* | OS3609* | 9.91 [32'-6"] | 9.04 [29'-8"] | 115 [71] | 4 | 6 | 6 |
| 10 | OS2410* | OS3010* | OS3610* | 10.82 [35'-6"] | 9.96 [32'-8"] | 120 [75] | 5 | 6 | 6 |
| 11 | OS2411* | OS3011* | OS3611* | 11.73 [38'-6"] | 10.87 [35'-8"] | 120 [75] | 5 | 7 | 7 |
| 12 | OS2412* | OS3012* | OS3612* | 12.65 [41'-6"] | 11.79 [38'-8"] | 120 [75] | 5 | 8 | 8 |

* G = GREY or Y = YELLOW

| Revisions | Date | Rev. | By | Ckd. | App. |
|------------------------------|----------|------|-----|------|------|
| REVISED NOTE 4, ADDED NOTE 8 | 02/25/99 | G | LWC | BB | SPT |
| ADDED NOTE 9 | 12/3/99 | H | DK | DO | SPT |
| REVISED NOTE 3 | 2/14/02 | I | DDW | STT | SPT |

| QUADGUARD CARTRIDGE | MONORAIL | NOSE ASSEMBLY | BACKUP |
|---------------------|----------|---------------|--------|
| 1 | 4 | 5 | 6 |

| SERIAL# | DIAPHRAGM ASSY. | NOSE ASSY. | FENDER PANEL ASSY. | BACKUP ASSY. | RAIL ASSY. | CONCRETE PAD |
|----------|-----------------|------------|--------------------|--------------|------------|--------------|
| 35-40-05 | 35-40-07 | 35-40-05 | 35-40-04 | 35-40-08, 14 | 35-40-06 | 35-40-09 |

SALES ORDER#
EH PROJECT#
DESIGN SPEED
NOSE COLOR
NUMBER OF UNITS

UNIDIRECTIONAL

ENERGY ABSORPTION SYSTEMS, INC.
ENGINEERING AND RESEARCH DEPARTMENT
QUADGUARD® SYSTEM
W/ CONCRETE BACKUP

DATE: 08/08/96
DESIGNED: JVM/MHO
CHECKED: BB
APPROVED: J. Mochado
CAD FILE: QSCBCVR-U.dwg

SCALE: 1=40

SHEET: 1 of 1

REV: I



SCI Products Inc.

**The World's Only
Speed-Dependent
Crash Attenuators.**



SMART CUSHION INNOVATIONS™

NCHRP 350 Approved



Marketed and Distributed by

W o r k A r e a P r o t e c t i o n

SMART CUSHION INNOVATIONS™

The World's Only Speed-Dependent Crash Attenuators



The Smart Cushion Innovations (SCI) crash attenuator is a revolutionary, speed-dependent product that varies stopping resistance during an impact. The Smart Cushion Innovations (SCI) crash attenuator allows lighter and slower-moving vehicles to have longer ridedown distances and lower ridedown G forces.

Unlike fixed-resistance attenuators, the Smart Cushion Innovations (SCI) attenuator does not reach maximum stopping resistance unless a vehicle is traveling at the maximum design speed. This fully redirective, non-gating, bi-directional, impact attenuator was designed for maximum safety and reusability, as well as outstanding durability before, during and after an impact.

The SCI is the only attenuator with a reverse-tapered design to eliminate side panel stress during a collapse. It also has an extremely low angle of exit on side impacts ($<1^\circ$) to keep vehicles from rebounding back into traffic and causing secondary accidents. This is the lowest angle of exit for any redirective attenuator on the market.



How It Works

The hydraulic porting of the attenuator ensures that the proper resistance is used to stop the vehicle before it reaches the end of the cushion's usable length.

The SCI was specifically designed for durability and resetability to enable resets to be performed in less than one hour. After a frontal impact, an experienced crew can perform the two-stage reset in less than 45 minutes. Side impacts within NCHRP 350 specifications should not damage the attenuator.

After an impact, the cushion requires a dual-stage pull-out with the replacement of two 1/4" shear bolts. The crash attenuator requires a minimal inventory of spare parts because of the new side panels' durability and the normal requirement of only two shear bolts on the frontal impact reset. Minimal damage means quick resetting and reduced worker exposure to traffic, as well as lower costs for traffic control, replacement parts and labor.



Ready To Install

SCI attenuators come fully assembled for a pick-and-set install. A typical installation can be performed in less than 1-1/2 hours. The units require no backstops for permanent or temporary construction applications.

NCHRP 350 Test Results

All NCHRP 350 tests were performed on the same unit in four consecutive days. All tests showed outstanding results for ridedown G forces and low angle of exit. There were no replacement parts required prior to the next test except for shear bolts.

"It's a very easy installation. We set the SCI impact attenuator with a truck-mounted crane, drove into the concrete surfacing and then did some epoxy work. The installation went real well and took about an hour. It would normally take longer for a different type of system. SCI manufactures a quality product and I'm sure they save many lives."

— Tyler Chicoine, Garcia-Chicoine Enterprises Inc., Lincoln, Nebraska



Repair Costs

Based on NCHRP 350 Test results, the **SCI100GM** required the following parts and labor:

| NCHRP 350 TEST LEVEL III REPAIR RESULTS | Part Names | Cost | Repair Hrs. | Cost | Total Cost |
|---|-----------------|------|-------------|------|------------|
| #3-31 2000 kg vehicle 0 degree frontal impact at 102 km/h | 2 – Shear Bolts | \$1 | 2 man hours | \$80 | \$81 |
| #3-32 820 kg vehicle 15 degree frontal impact at 101 km/h | 2 - Shear Bolts | \$1 | 2 man hours | \$80 | \$81 |
| #3-33 2000 kg vehicle 15 degree frontal impact at 101 km/h | 2 - Shear Bolts | \$1 | 2 man hours | \$80 | \$81 |
| #3-37 2000 kg vehicle 20 degree side impact at 99 km/h | 0 | \$0 | 0 | \$0 | \$0 |
| #3-39 2000 kg vehicle 20 degree rev. side impact at 99 km/h | 0 | \$0 | 0 | \$0 | \$0 |

Test Levels Available

The **SCI70GM** is our Test Level 2 (45 MPH) attenuator and the **SCI100GM** is our Test Level 3 (62 MPH) attenuator. Both attenuators can protect a wide range of hazards including bridges, median barriers and highway signs.

reusability.

The first speed-dependent, variable-resistance attenuator that can ramp resistance up or down to provide the smoothest ridedown of any system on the market.



*"The **SCI100GM** unit has experienced three hits in a very short period. The first was well above the NCHRP 350 criteria. The crash used every bit of the capacity the unit has and I believe the driver survived because of the performance of the unit in extreme circumstances. The next two hits were within the NCHRP 350 criteria and the unit functioned as designed with very little repair cost. As we gain experience in resetting units, the job can be accomplished in less than 30 minutes for a majority of hits. Damage to the unit for the last two hits was limited to the shear pins and the chevron plate."*

— Ron Jones, Trafficade Services Inc., Phoenix, Arizona

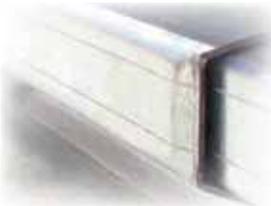


Features



Support Gussets.

Gussets located behind the panels reduce gap formation and deformation to prevent snagging on reverse side impacts.



Stronger Side Panel.

Our panels are over 90% stronger than curved profiles. The profile allows the edges to be beveled, reducing the potential for snagging and damage on reverse-direction impacts. The panel also smoothly redirects vehicles on side impacts. The side panel is fabricated from 10-gauge, 60-ksi, minimum-yield steel with a G90 galvanized coating.



Cable & Cylinder System.

This system allows longer ridedown distances for smaller vehicles, as well as smoother ridedown with lower G forces for all vehicles. The cylinder's hydraulic porting assures a controlled ridedown by applying the necessary resistance required based on the speed of the vehicle.



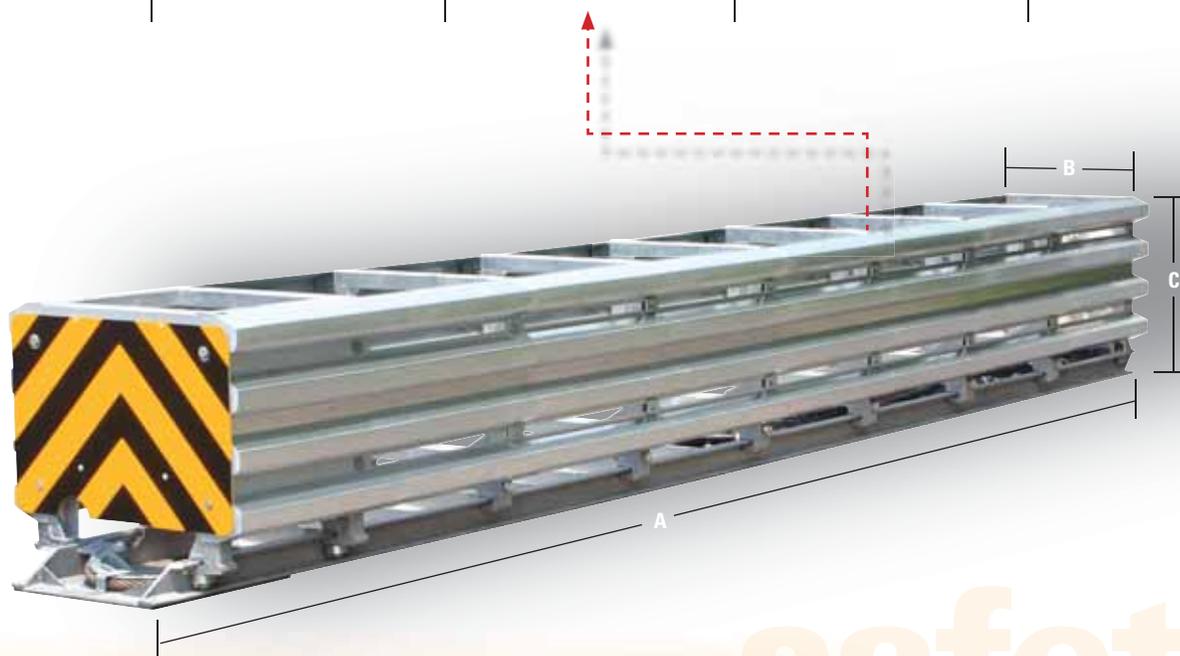
Side Guide Design.

This new design withstands side impacts with no damage. It also allows individual replacement of the support frames.



Front Rollers.

The roller guide design on the front sled produces a smooth, aligned collapse by reducing friction and binding.



| SCI Dimensions | Test Level 2 | Test Level 3 |
|----------------|--------------|--------------|
| A | 13' 6" | 21' 6" |
| B | 24" | 24" |
| C | 34" | 34" |
| Weight | 2470 lbs. | 3450 lbs. |

Weights are for attenuators only

safety.



SMART CUSHION INNOVATIONS™

Highlights

Safety Benefits

- ▶ Variable force (speed-dependent), not fixed force, provides consistent deceleration during ridedown.
- ▶ Longer ridedown distances and lower sustained G forces for lighter or slower-moving vehicles.
- ▶ Low angle of exit on side impacts (<1°) to keep vehicle from deflecting back into traffic.
- ▶ Quick and easy resetting for reduced worker exposure to traffic.
- ▶ Reduced out-of-service time to maximize highway safety.



Cost Benefits

- ▶ Minimal replacement parts requirement reduces spare parts inventory and parts costs.
- ▶ Quick, easy resetting reduces labor and traffic control costs.
- ▶ The new, reverse-tapered design eliminates side panel stress on frontal impacts to reduce damage and system fatigue from multiple impacts.
- ▶ Low life cycle cost benefits increase dramatically as impacts occur.



About Work Area Protection Corporation

Work Area Protection Corporation is the international leader in traffic control devices and work zone safety products. Since 1969, we have been meeting customer needs and exceeding quality standards with a wide range of highway and construction safety products. We back those products with knowledgeable, personalized customer service and strong distributor support.

| Part No. | Description | Weight |
|--------------------|--|---|
| Attenuators | | |
| 9400 | SCI100GM Attenuator 24" wide w/Concrete Anchors Test Level 3 | 3500 lbs. |
| 9450 | SCI100GM Attenuator 24" wide w/Asphalt Anchors Test Level 3 | 3575 lbs. |
| 9451 | SCI70GM Attenuator 24" wide w/Concrete Anchors Test Level 2 | 2500 lbs. |
| 9452 | SCI70GM Attenuator 24" wide w/Asphalt Anchors Test Level 2 | 2550 lbs. |
| Anchor Kits | | |
| 9401 | Concrete Anchor Kit for SCI100GM | |
| 9402 | Asphalt Anchor Kit for SCI100GM | |
| 9453 | Concrete Anchor Kit for SCI70GM | |
| 9454 | Asphalt Anchor Kit for SCI70GM | |
| Accessories | | |
| 9406 | Shear Bolt | |
| 9424 | Delineator Panel Yellow Test Level 3 | |
| 9456 | Delineator Panel Yellow Test Level 2 | |
| 9439 | Epoxy 22 oz. Cartridge Required for Attenuator Part No. 9400=4/9450=12/9451=3/9452=9 | |
| 9440 | Nozzle Epoxy Mixing – 1 nozzle required per cartridge | |
| 9444 | Spare Parts Kit Test Level 3 | |
| 9458 | Spare Parts Kit Test Level 2 | |
| Transitions | | |
| 9431 | Transition 24" Jersey Barrier - Right (viewed from front) |  Transition 24" Jersey Barrier |
| 9432 | Transition 24" Jersey Barrier - Left (viewed from front) | |
| 9433 | Transition 24" Concrete - Left & Right | |
| | |  Transition 24" Concrete |

Call for other transition design availability

Disclaimer

This product is only intended for use as a redirective impact attenuator. Installations must be performed according to manufacturer's specification. Improper installations, modifications or unintended use creates a hazardous condition that can cause personal injury, property damage or death. Any modification or unintended use of this product shall immediately void all manufacturers' warranties. SCI Products Inc. disclaims all liability for injuries to persons or property resulting from any modifications to, unintended use of or unspecified installation of this product.

Designs are subject to change without notice.

SMART CUSHION INNOVATIONS is a trademark of SCI Products Inc.

PATENT PENDING.



SCI Products Inc.

Permanent Message Boards • Attenuators • Speed Awareness Products • LED Signals • Advanced Warners



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