

REACT 350[®] Narrow (36")

CRASH CUSHION

PRODUCT DESCRIPTION MANUAL



REACT 350[®]

Narrow (36")

The REACT 350[®] Narrow 36" system ("REACT 350[®] Narrow") has been tested pursuant to National Cooperative Highway Research Program ("NCHRP") Report 350 specifications. The REACT 350[®] has been deemed eligible for federal-aid reimbursement on the National Highway System by the Federal Highway Administration ("FHWA").

Product Description Manual



15601 Dallas Parkway
Suite 525
Addison, Texas 75001



Warning: The local highway authority, distributors, owners, contractors, lessors, and lessees are responsible for the assembly, maintenance, and repair of the REACT 350[®] Narrow. Failure to fulfill these **RESPONSIBILITIES** with respect to the assembly, maintenance, and repair of the REACT 350[®] Narrow could result in serious injury or death.

The instructions contained in this manual supersede all previous information and manuals. All information, illustrations, and specifications in this manual are based on the latest REACT 350[®] Narrow information available to Valtir at the time of printing. We reserve the right to make changes at any time. Please contact Valtir or visit Valtir.com to confirm that you are referring to the most current instructions.

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Customer Service Contacts

Valtir is committed to the highest level of customer service. Feedback regarding the REACT 350®, its assembly procedures, supporting documentation, and performance is always welcome. Additional information can be obtained from the contact information below:

Valtir

| | |
|--------------|--|
| Telephone | (888) 323-6374 (USA) (214) 589-8140 (International) |
| Contact Link | Valtir.com/Contact |

Limitations and Warnings

Valtir contracts with FHWA approved testing facilities to perform crash tests, evaluate, and submit results to the FHWA for review.

The REACT 350® has been deemed eligible for reimbursement by FHWA as meeting the requirements and guidelines of NCHRP Report 350. NCHRP Report 350 tests are designed to evaluate product performance involving a typical range of vehicles on our roadways, from lightweight cars (approx. 820 kg [1800 lb.]) to full size pickup trucks (approx. 2000 kg [4400 lb.]) as specified by the FHWA. A product can be certified for multiple Test Levels. The REACT 350® Narrow is certified to the Test Level(s) as shown below:

Test Level 2: 70 km/h [43 mph] (4 Bay system)

Test Level 3: 100 km/h [62 mph] (9 Bay system)

These FHWA directed tests are not intended to represent the performance of systems when impacted by every vehicle type or every impact condition existing on the roadway. This system is tested only to the test matrix criteria of NCHRP Report 350 as approved by FHWA.

Valtir expressly disclaims any warranty or liability for injury or damage to persons or property resulting from any impact, collision or harmful contact with products, other vehicles, or nearby hazards or objects by any vehicle, object or person, whether or not the products were assembled in consultation with Valtir or by third parties.

The REACT 350® is intended to be assembled, delineated, and maintained within specific state and federal guidelines. It is important for the highway authority specifying the use of a highway product to select the most appropriate product configuration for its site specifications. The customer should be careful to properly select, assemble, and maintain the product. Site lay out, vehicle population type; speed, traffic direction, and visibility are important elements that require evaluation in the selection of a highway product. For example, curbs could cause an untested effect on an impacting vehicle.

After an impact occurs, the debris from the impact should be removed from the area immediately and the specified highway product should be evaluated and restored to its original specified condition or replaced as the highway authority determines as soon as possible.

System Overview

The REACT 350® Narrow is a potentially reusable, re-directive, non-gating crash cushion for roadside obstacles ranging in width from 8” to 36” [203 mm to 914 mm]. It consists of high molecular weight, high density polyethylene (HMW/HDPE), energy-absorbing Cylinders. Again, the decision as to whether this product is reusable after impact rests solely within the sound discretion of the trained engineer, experienced in highway products, who is working at the direction of the local DOT, or appropriate highway authority which specified and now owns the product.

The REACT 350® Narrow utilizes three types of cylinders in a “staged” configuration designed to address both lighter cars and heavier, high center-of-gravity vehicles. Its modular design allows the system length to be tailored to the design speed of a site. Refer to this REACT 350® Narrow Product Description Manual to determine the appropriate length system for a given speed (p. 13).

Impact Performance

The 4 Cylinder REACT 350® Narrow (TL-2) system has successfully passed the requirements outlined in NCHRP Report 350, with both the light car and pickup at speeds of up to 43 mph [70 kph] at angles up to 20 degrees.

The 9 Cylinder REACT 350® Narrow (TL-3) system has successfully passed the requirements outlined in NCHRP Report 350, with both the light car and pickup at speeds of up to 62 mph [100 kph] at angles up to 20 degrees.

During head-on impacts, within the above-referenced NCHRP Report 350 criteria, the REACT 350® Narrow Cylinders is designed to compress rearward to absorb the energy of impact. When impacted from the side, within the applicable NCHRP Report 350 criteria, it is designed to redirect the vehicle back toward its original travel path and away from the roadside feature.

Backup Options

Two Backup options are available to further meet specific requirements of each location. A Self-Contained Backup is available, or the system can be mounted to a new or existing Concrete Backup. In some locations, either Backup type may be appropriate (pp. 7 - 11).

Self-Contained Backup

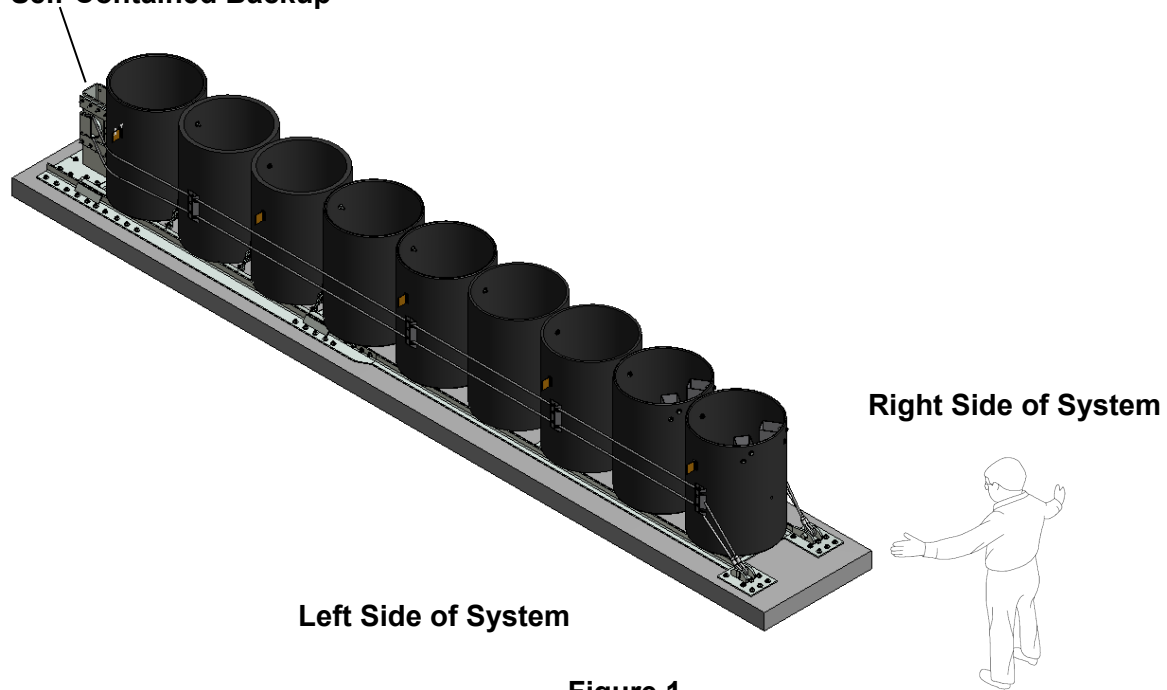


Figure 1
REACT 350® Narrow (36") with Self-Contained Backup

Anchor Block Options

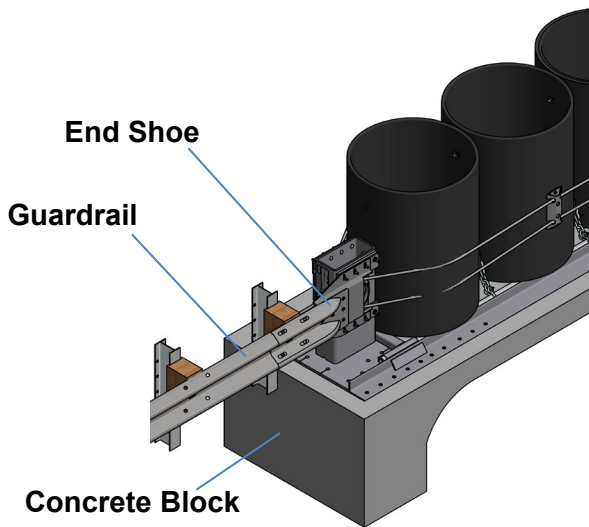


Figure 2
Below-Grade Anchor Block

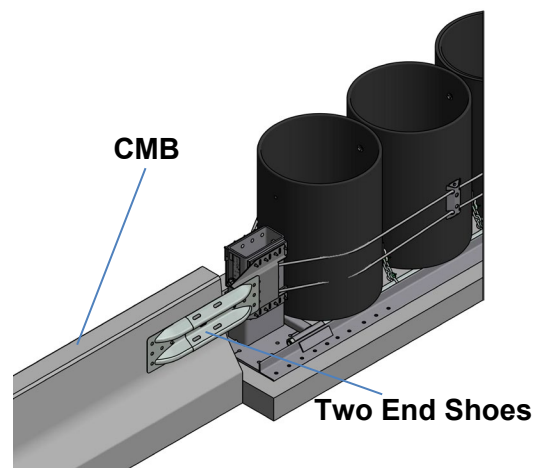


Figure 3
No Anchor Block Needed

Number of Bays

A Bay consists of one Cylinder. The terms Bay and Cylinder may be used interchangeably. The Cylinder at the front of the system (on-coming traffic end) is always Bay 1, and each subsequent Bay is sequentially numbered to the rear of the system (roadside feature end). The standard REACT 350® Narrow is available in 4, 6, and 9 Bay configurations so the length of the system can be tailored for the design speed of the roadway.

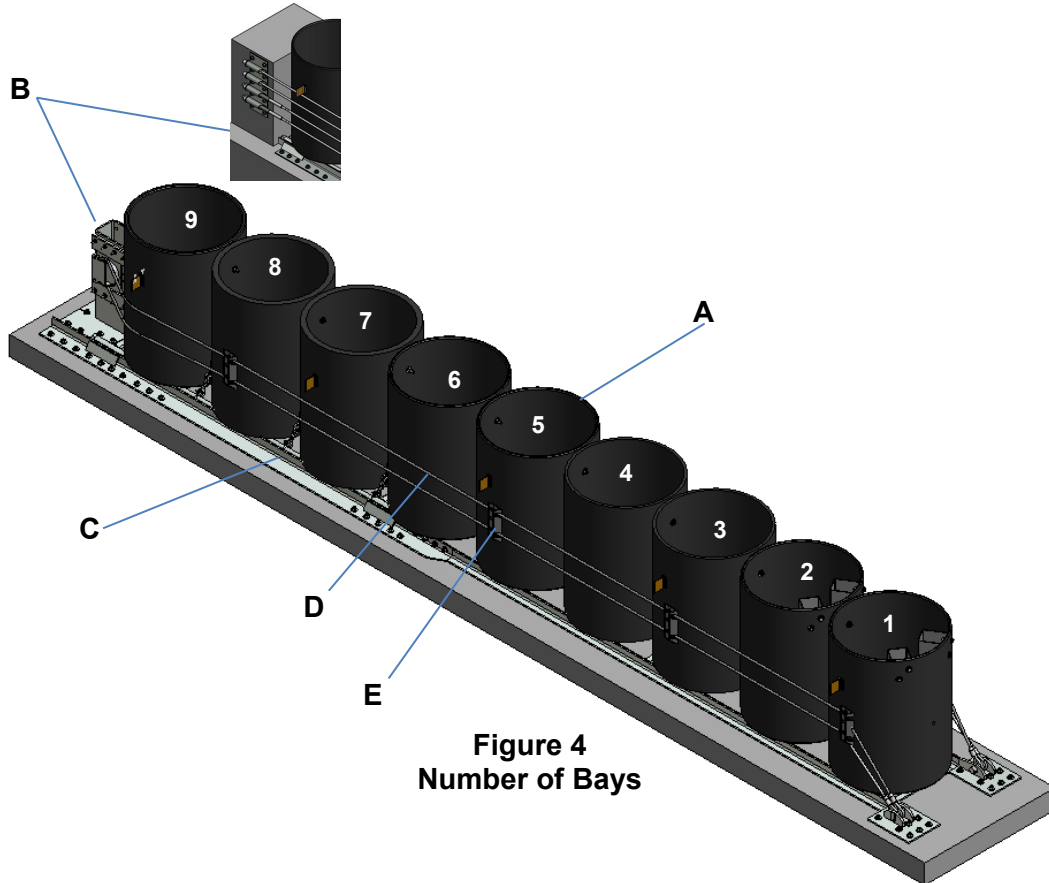


Figure 4
Number of Bays

Key

- A. Cylinder/Bay
- B. Backup (Self-Contained or Concrete)
- C. Steel Base Track
- D. Cables (Quantity varies with Backup)
- E. Cable Guide

REACT 350® Narrow Cable Criteria

The REACT 350® Narrow is available with a Self-Contained Backup or may be attached to a Concrete Backup. Figures 5 and 6 along with the Backup Assembly drawings will determine which type of Backup is appropriate.

Self-Contained Backup

REACT 350® Narrow with a Self-Contained “Steel Tube” Backup requires two Cables, one Cable on each side of the Cylinders. These Cables begin at the front of the system, travel through the Cable Guides on the Cylinders, loop around the Backup structure, travel back through the Cable Guides, and terminate at the front of the system.

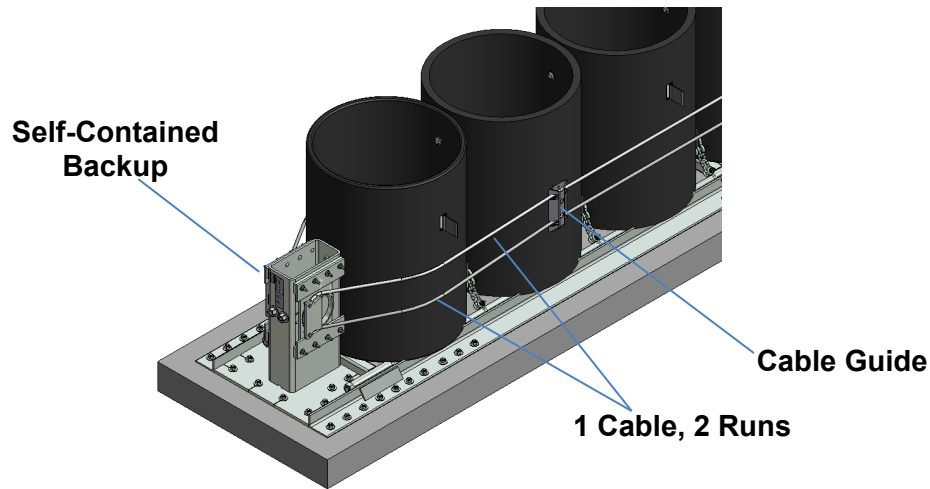


Figure 5
Self-Contained Backup

Concrete Backup

The REACT 350® Narrow with Concrete Backup requires four Cables. Two Cables on each side of the Cylinders begin at the Side Anchor Plates, travel through the Cable Guides on the Cylinders, loop around the pin on the Front Anchor Plates, travel back through the Cable Guides, and terminate at the Side Anchor Plates. Existing concrete structures may serve as backups for the REACT 350® Narrow provided they meet specific size and strength requirements.

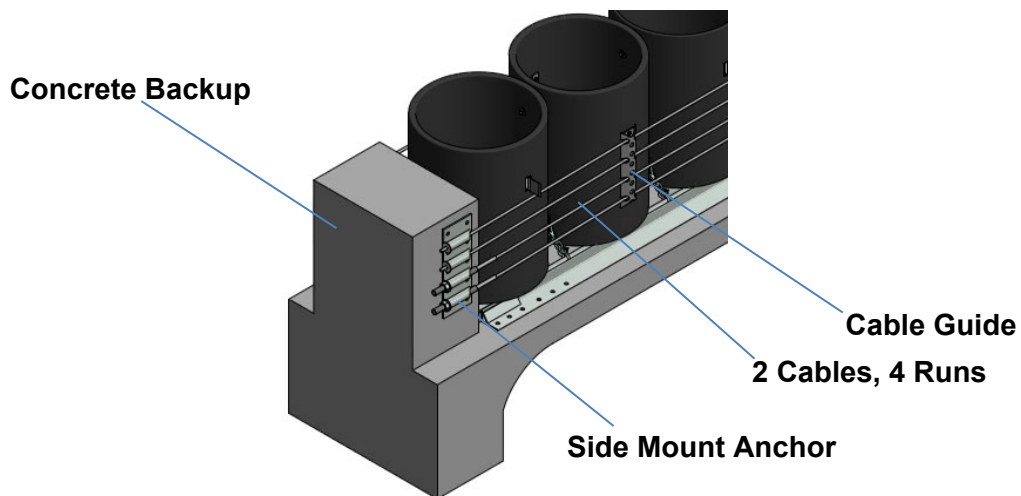


Figure 6
Concrete Backup

Self-Contained Backup

Overview

The Self-Contained Backup REACT 350® Narrow is designed to minimize installation time. This type of system arrives at the site fully assembled. The assembly crew needs only to lift and place the system in front of the barrier, then drill and set the anchors. (Refer to the Assembly Manual for a complete list of instructions.)

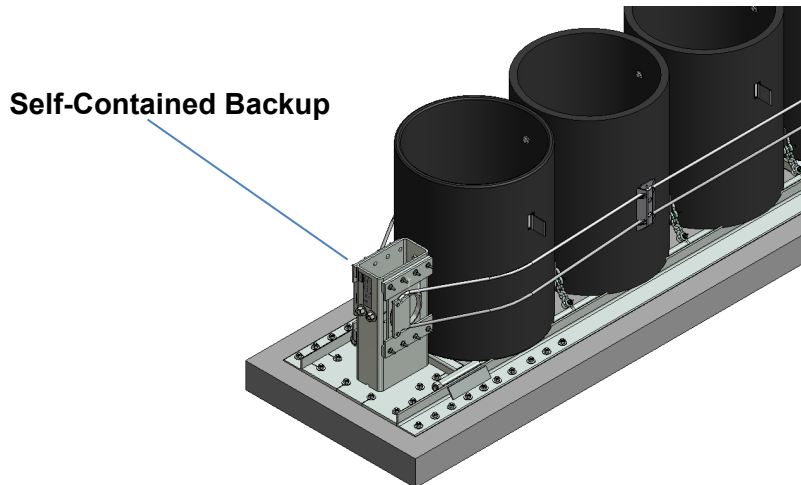


Figure 7
Self-Contained Backup

Feature Width

The REACT 350® Narrow, with a Self-Contained Backup, can shield obstacles in gore, non-gore, and bidirectional applications (pp. 8 - 10).

When shielding median barriers, a Self-contained Backup system may be used if the base or “toe” of the barrier is tapered (Figure 8). Contact Valtir for more information (p. 3).

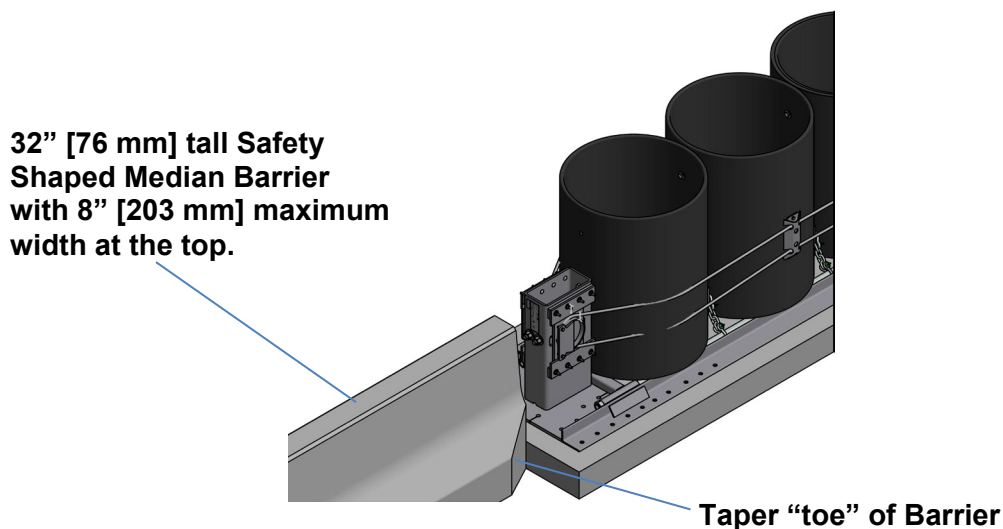


Figure 8
Taper

Guardrail Attachment

Hardware is available to mount W-Beam guardrail or a safety shaped barrier to the Self-Contained Backup of the REACT 350® Narrow. A Folded Transition Plate and W-Beam Connector can mount to either or both sides of the Backup assembly (Figure 9). If bidirectional traffic is present, special post spacing, rail, and rub rail will be required for guardrail.

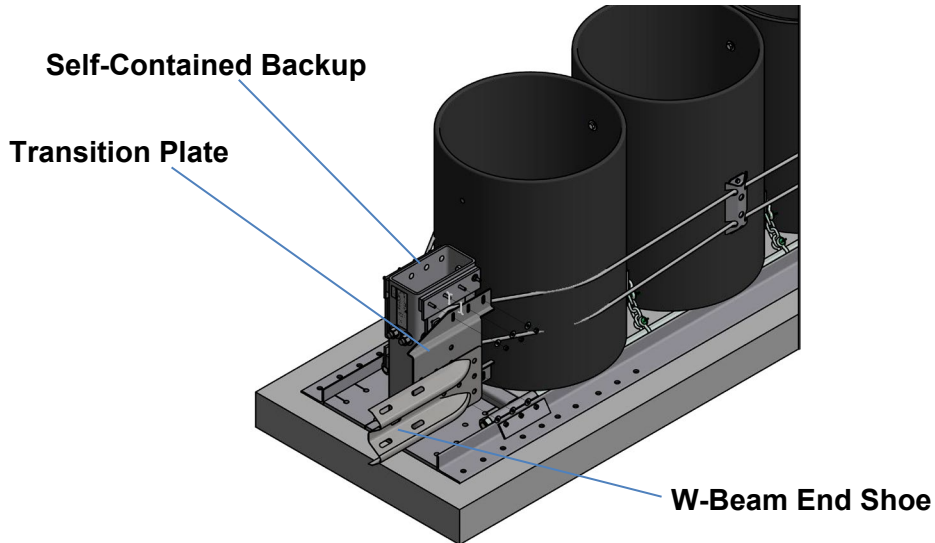


Figure 9
Guardrail Attachment Hardware

Bidirectional Traffic

If bidirectional traffic (vehicles traveling opposite directions on either side of the system) is present, special considerations need to be taken when placing the system. It is important that the Self-Contained Backup does not become an obstacle to the reverse direction traffic. If a system is placed in a location where traffic will be approaching from the rear of the system, transition hardware may be required. Optionally, if space permits, the REACT 350® Narrow may be offset such that the Backup structure is shielded by the roadside feature (p. 9). Guardrail transition hardware may also be used.

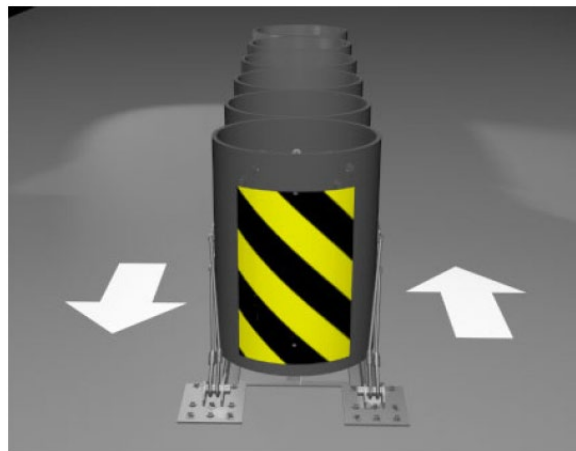


Figure 10
Bidirectional Traffic

Offsetting the System

The REACT 350® Narrow system, with a Self-Contained Backup, may be offset from the center of the roadside obstacle if space permits. Offsetting may be necessary for two reasons.

- 1) To shield a feature wider than 8" [200 mm]
- 2) If bidirectional traffic is present

When offsetting the system, align the edge of the cylinders with the side of the barrier (Figure 11). The method allows a REACT 350® Narrow with Self-Contained Backup to shield obstacles wider than 8" [200 mm]. If a wider roadside feature is present or if bidirectional traffic is present a Concrete Backup may be required. Contact Valtir Customer Service Department for offsetting input questions (p. 3).

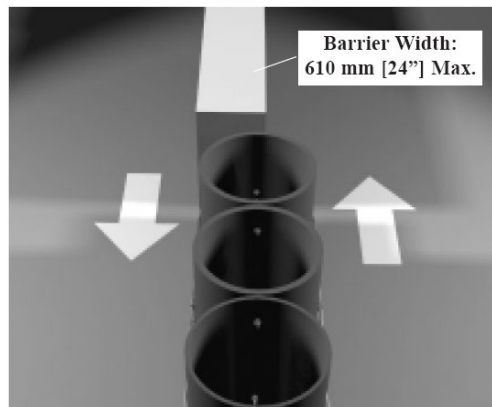


Figure 11
Offset

Concrete Backup

Overview

The REACT 350® Narrow is also designed to mount directly to a new or existing Concrete Backup. This type of system requires slightly more deployment time, as the cables must be assembled on site. Refer to the Assembly Manual for a complete list of instructions. Existing Concrete Backups must be a minimum of 40" [1 m] high, 24" [610 mm] long, and 30" [762 mm] to 36" [914 mm] wide, with 28 day curing strength of 4000 psi [28 MPa] and fully reinforced. If your existing structure does not meet these minimums, special hardware and designs may be available for them. You may Contact Valtir Customer Service Department with your site information if you would like input (p. 3).

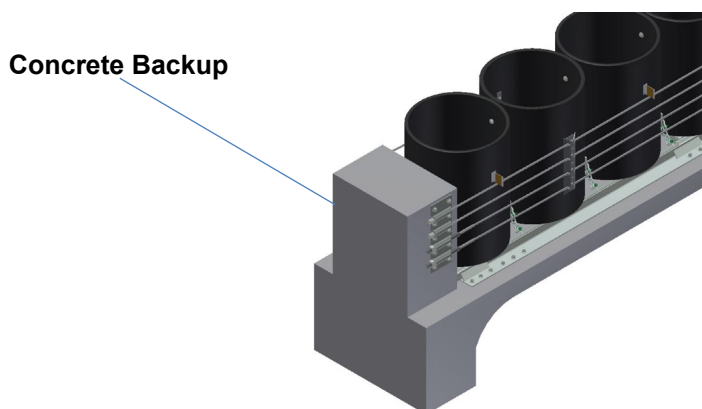


Figure 12
Concrete Backup

Roadside Feature Width

The REACT 350® Narrow with a Concrete Backup is intended to protect features up to 36" [914 mm] wide. The Backup must be 30" to 36" [762 mm to 914 mm] wide to use standard Side Anchor hardware.

Bidirectional Traffic

If bidirectional traffic (vehicles traveling opposite directions on either side of the system) is present, special consideration needs to be taken when placing the system. It is important that the Concrete Backup itself does not become an obstacle to the reverse direction traffic. If a system is placed in a location where traffic will be approaching from the rear of the system, the Backup should not protrude beyond the obstacle being shielded. Concrete tapering may be required. Also, an additional standard Side Anchor plate should be rotated 180 degrees and placed behind the First Anchor Plate (Figure 13). In this case, the Backup must be 30" [762 mm] long.

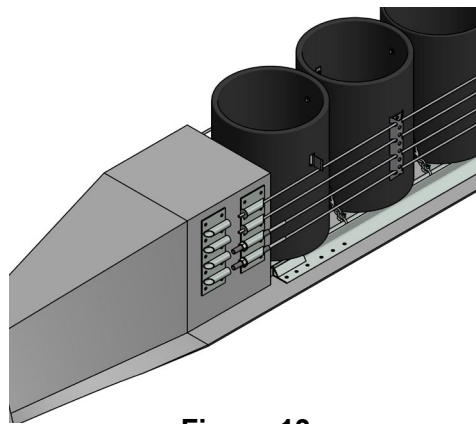


Figure 13
Asphalt/Concrete

Longitudinal Joint Application

The REACT 350® Narrow with Concrete Backup and split Base Track may span longitudinal expansion or construction joints.



Warning: Transverse joint applications are prohibited and longitudinal joint movement must be limited to 1.5" [38 mm].

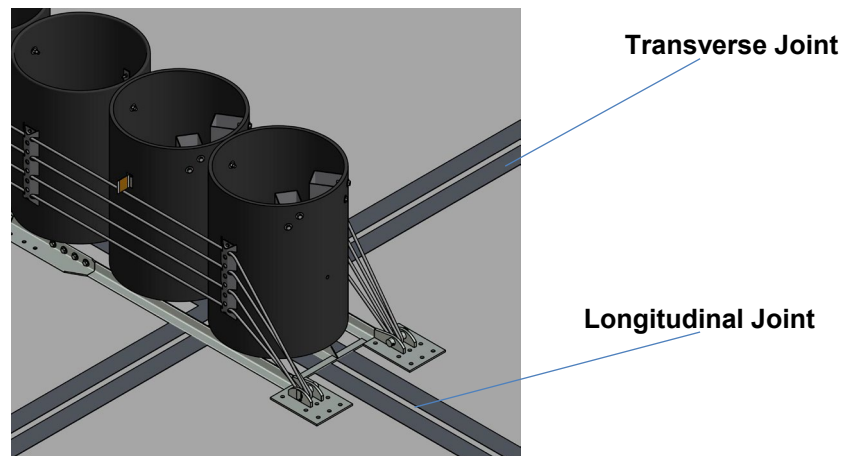


Figure 14
Longitudinal and Transverse Joints Shown

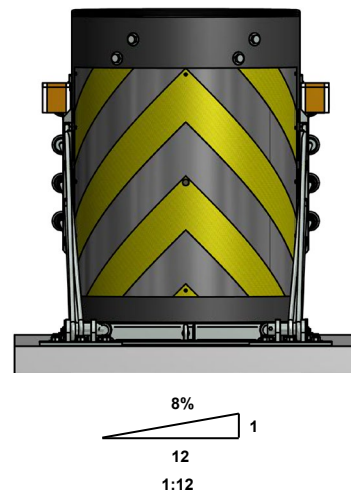
Special Site Conditions

Contact Valtir Customer Service Department if you would like assistance with your application as proper model selection is essential to the performance of the REACT 350® Narrow system. You will need to answer the following questions:

1. Are curbs, islands, or elevated objects (delineators or signs) present at the site? What height and width are they? All curbs and elevated objects should be removed. Curbs should be removed from behind the Backup to approximately 50' [15 m] in front of the REACT 350® Narrow. Any curbs that must remain should be 4" [102 mm] maximum and be mountable. Signs should not be used that can interfere with the system's ability to collapse. Generally, a vehicle should not interact with the two appurtenances at the same time. Allow for adequate spacing.
2. If the deployment site is a gore area (place where two roads diverge), what is the angle of divergence?
3. What is the general geometry of the site? Include the roadway for 500' [150 m] in front of the roadside obstacle, so traffic patterns can be visualized.
4. Is there an existing guardrail or median barrier at the site?
5. What is the width of the feature to be protected?
6. Will there be traffic approaching from the rear of the system? Is the system in a two-way traffic situation with traffic going in opposite directions on either side of the system? Or, is the system on the side of the road where cross over traffic is a concern? If so, a transition from the roadside obstacle to the rear of the system may be necessary to prevent a vehicle from interacting with the rear of the system. See Bidirectional Traffic on page 11.
7. Are there any other unique features at the site that may affect the positioning or performance of the REACT 350® Narrow?

Other Factors That May Affect Your Assembly:

1. The existence of drain inlets or buried culvert pipe.
2. Junction boxes or other appurtenances located near the roadside feature.
3. Insufficient space for the length of system preferred.
4. The location and movement of expansion joints.
5. Breaking cross-slopes under or near the proposed assembly or severe cross-slope under the system. Provide leveling to 8% maximum slope (Figure 15). Often a system can be moved further forward to a more level site. Transitioning may be extended back to the existing roadside condition to accommodate the site.

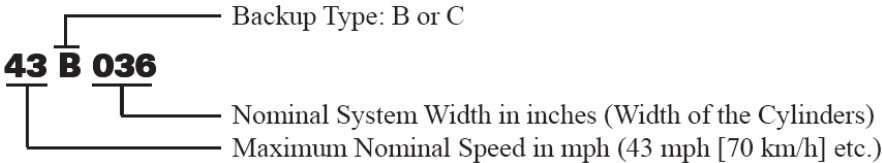


**Figure 15
Cross Slope**

| REACT 350® Narrow Standard Models | | | | | | |
|--|-----------|-----------|---------------|--------|-------------------|-----|
| Reference | Model No. | # of Bays | System Length | | Max. Design Speed | |
| | | | Feet-Inches | Meters | mph | kph |
| REACT 350.4 | 43B036 | 4 | 15' 3" | 4.64 | 43 | 70 |
| | 43C036 | 4 | 13' 8 3/4" | 4.19 | 43 | 70 |
| REACT 350.6 | 55B036 | 6 | 21' 2 3/4" | 6.47 | 55 | 89 |
| | 55C036 | 6 | 19' 8 3/4" | 6.02 | 55 | 89 |
| REACT 350.9 | 62B036 | 9 | 30' 2 3/4" | 9.21 | 62 | 100 |
| | 62C036 | 9 | 28' 8 3/4" | 8.76 | 62 | 100 |

Impact conditions which differ from those described in the NCHRP Report 350 test matrix for non-gating re-directive crash cushions may result in different crash results than those encountered in testing. Furthermore, impacts in excess of TL-3 impact severity or the existence of unusual impact conditions such as vehicle instability resulting from traversing curbs or excessive cross-slopes prior to impact may compromise crash performance and have not been crash tested. Article performance relative to structural adequacy, occupant risk, and vehicle trajectory may not meet NCHRP Report 350 evaluation criteria.

| Model Number Description | |
|---|--|
| B | C |
| Self-Contained Backup | Concrete Backup with side mount anchors |
| Typical feature width 8" [203 mm] (Safety Shape Barrier) | Max. feature width 36" [914 mm] |



Foundation/Anchoring

The REACT 350® Narrow can be deployed on any of the following foundations using the specified anchorage:

Permanent Installations

For permanent installations, the REACT 350® Narrow should be installed only on an existing or freshly placed and cured concrete base (28 MPa [4000 psi] minimum concrete strength). Orientation of the concrete base and the attenuator must comply with the project plans or as otherwise determined by the resident project engineer or appropriate highway authority.

Recommended dimension and reinforcement specifications for new concrete pads can be found on the standard drawings.

Asphalt Installations

For temporary installations in construction zones, REACT 350® Narrow may be installed on asphalt. Only systems with a Self-Contained Backup may be installed on asphalt. Provide a minimum of 3" [76 mm] layer of asphalt over a minimum of 3" [76 mm] layer of Portland Cement Concrete, 6" [152 mm] layer of asphalt over 6" [152 mm] layer of subbase, or 8" [203 mm] layer of asphalt with no subbase or 18" [460 mm] threaded rods. Only an approved adhesive can be used with these foundations.



Important: Systems mounted on asphalt must be replaced and mounted on fresh undisturbed asphalt if more than 10% of anchors are found to be loose, broken, or show signs of pull out. If 10% or fewer anchors are damaged, replace the damaged anchors in the existing asphalt. Anchor bolts used on systems mounted on asphalt must be inspected every 6 months. See Post Impact Instructions and Maintenance and Repair instructions in the REACT 350® Narrow Assembly Manual for details.

The REACT 350® Narrow system may be installed on any of the following foundations using the specified anchorage:

Foundation A: Concrete Pad or Roadway

Foundation: 8" [200 mm] minimum depth Portland Cement Concrete (P.C.C.)

Anchorage: Approved adhesive with 7 1/2" [190 mm] studs 6" [152 mm] embedment

Foundation B: Asphalt over P.C.C.

Foundation: 3" [76 mm] minimum asphalt concrete (A.C.) over 3" [76 mm] minimum P.C.C.

Anchorage: Length of anchor required is 18" [180 mm] 16.5" [420 mm] embedment

Foundation C: Asphalt over Subbase

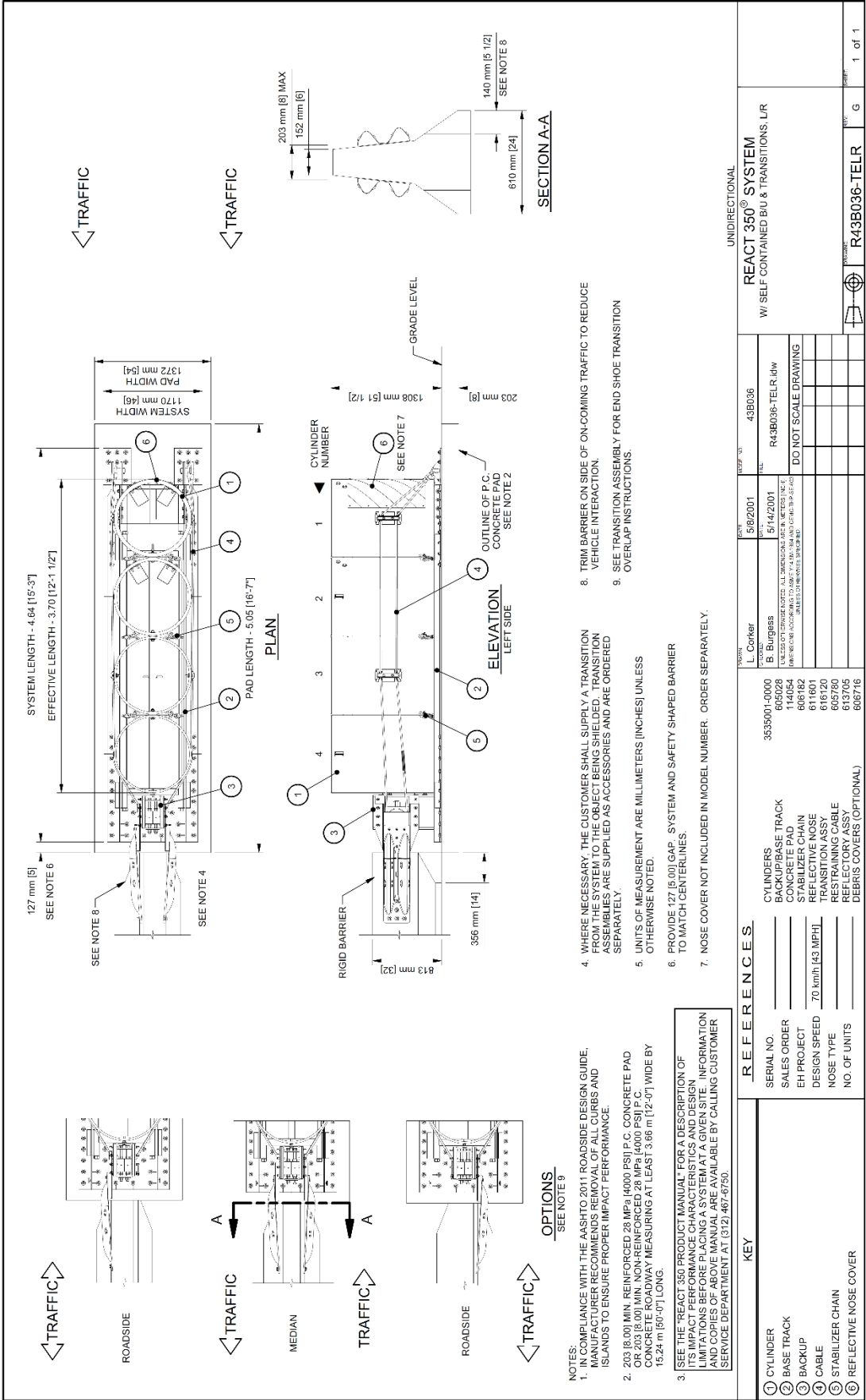
Foundation: 150 mm [6"] minimum A.C. over 6" [150 mm] minimum Compacted Subbase (C.S.)

Anchorage: Approved adhesive with 18" [460 mm] studs 16.5" [420 mm] embedment

Foundation D: Asphalt Only

Foundation: 200 mm [8"] minimum A.C.

Anchorage: Approved adhesive with 18" [460 mm] studs - 16.5" [420 mm] embedment



TL-2 w/Self-Contained Backup & Transition, Multi-Directional R43B036-TELR

- NOTES:
- IN COMPLIANCE WITH THE AASHTO 2011 ROADSIDE DESIGN GUIDE, MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
 - 203 (8.00) MIN. REINFORCED 28 MPa (4000 PSI) P.C. CONCRETE PAD OR 203 (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 REACT 350 PRODUCT 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 (312) 467-6750.
 - WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION FROM THE SYSTEM TO THE OBJECT BEING SHIELDED. TRANSITION ASSEMBLIES ARE SUPPLIED AS ACCESSORIES AND ARE ORDERED SEPARATELY.
 - UNITS OF MEASUREMENT ARE MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.
 - PROVIDE 127 (5.00) GAP - SYSTEM AND SAFETY SHAPED BARRIER TO MATCH CENTERLINES.
 - NOSE COVER NOT INCLUDED IN MODEL NUMBER. ORDER SEPARATELY.
 - TRIM BARRIER ON SIDE OF ON-COMING TRAFFIC TO REDUCE VEHICLE INTERACTION.
 - SEE TRANSITION ASSEMBLY FOR END SHOE TRANSITION OVERLAP INSTRUCTIONS.

REFERENCES

| KEY | DESCRIPTION |
|-----|-----------------------|
| ① | CYLINDER |
| ② | BACKUP |
| ③ | BACKUP |
| ④ | CABLE |
| ⑤ | STABILIZER CHAIN |
| ⑥ | REFLECTIVE NOSE COVER |

| SYMBOL | DESCRIPTION | DATE | BY | APP'D |
|------------|-------------|------|----|-------|
| L. Corker | 5/6/2001 | | | |
| B. Burgess | 5/14/2001 | | | |

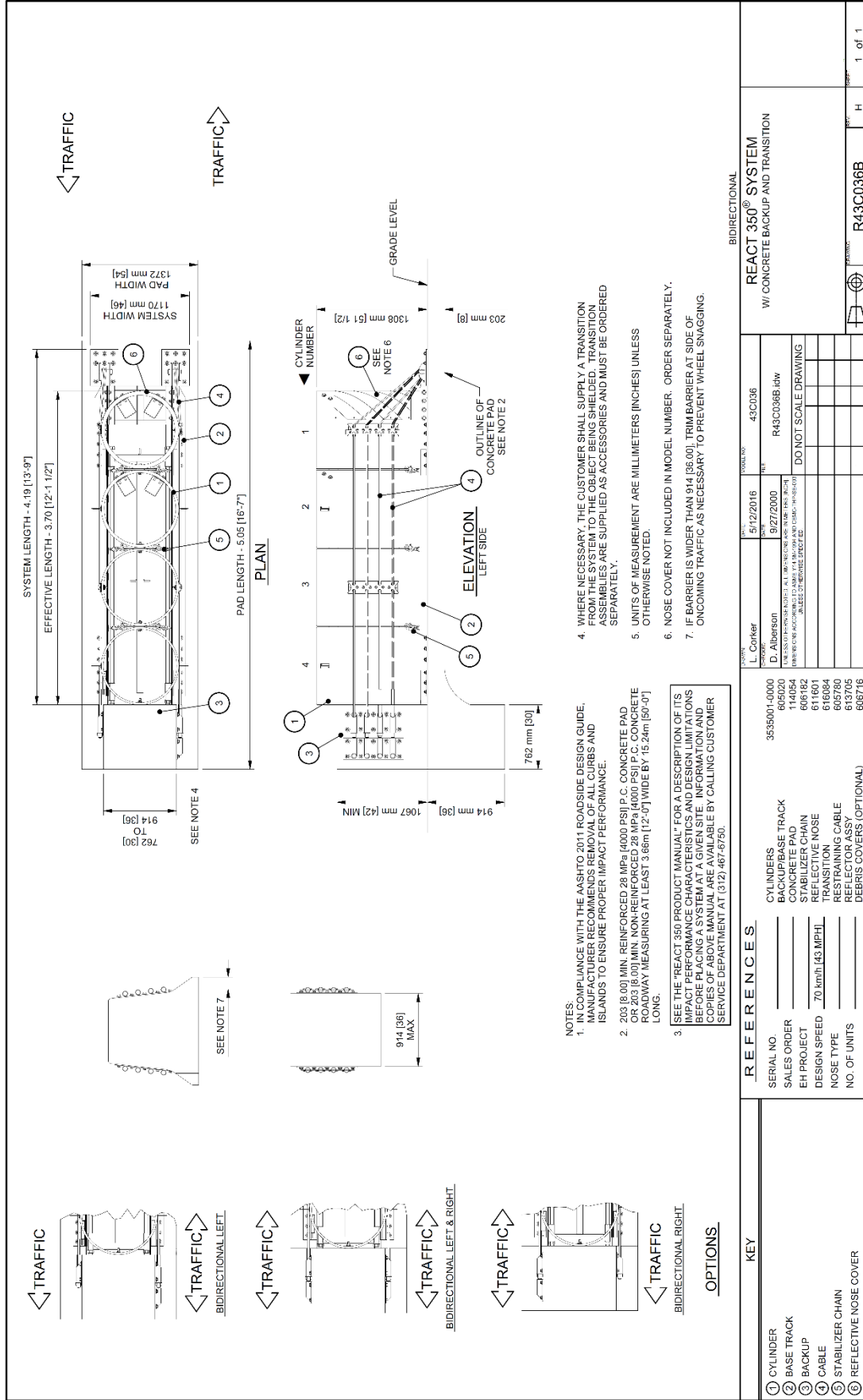
| ITEM NO. | DESCRIPTION | QTY | UNIT |
|--------------|--------------------------|-----|------|
| 3335001-0000 | CYLINDERS | | |
| 605028 | BACKUP/BASE TRACK | | |
| 114054 | CONCRETE PAD | | |
| 606182 | STABILIZER CHAIN | | |
| 611601 | REFLECTIVE NOISE | | |
| 616120 | TRANSITION ASSY | | |
| 605790 | RESTRAINING CABLE | | |
| 605792 | NOSE COVER | | |
| 606716 | DEBRIS COVERS (OPTIONAL) | | |

| MODEL | DESCRIPTION | DATE | BY | APP'D |
|--------|------------------|------|----|-------|
| 438036 | R43B036-TELR, RW | | | |

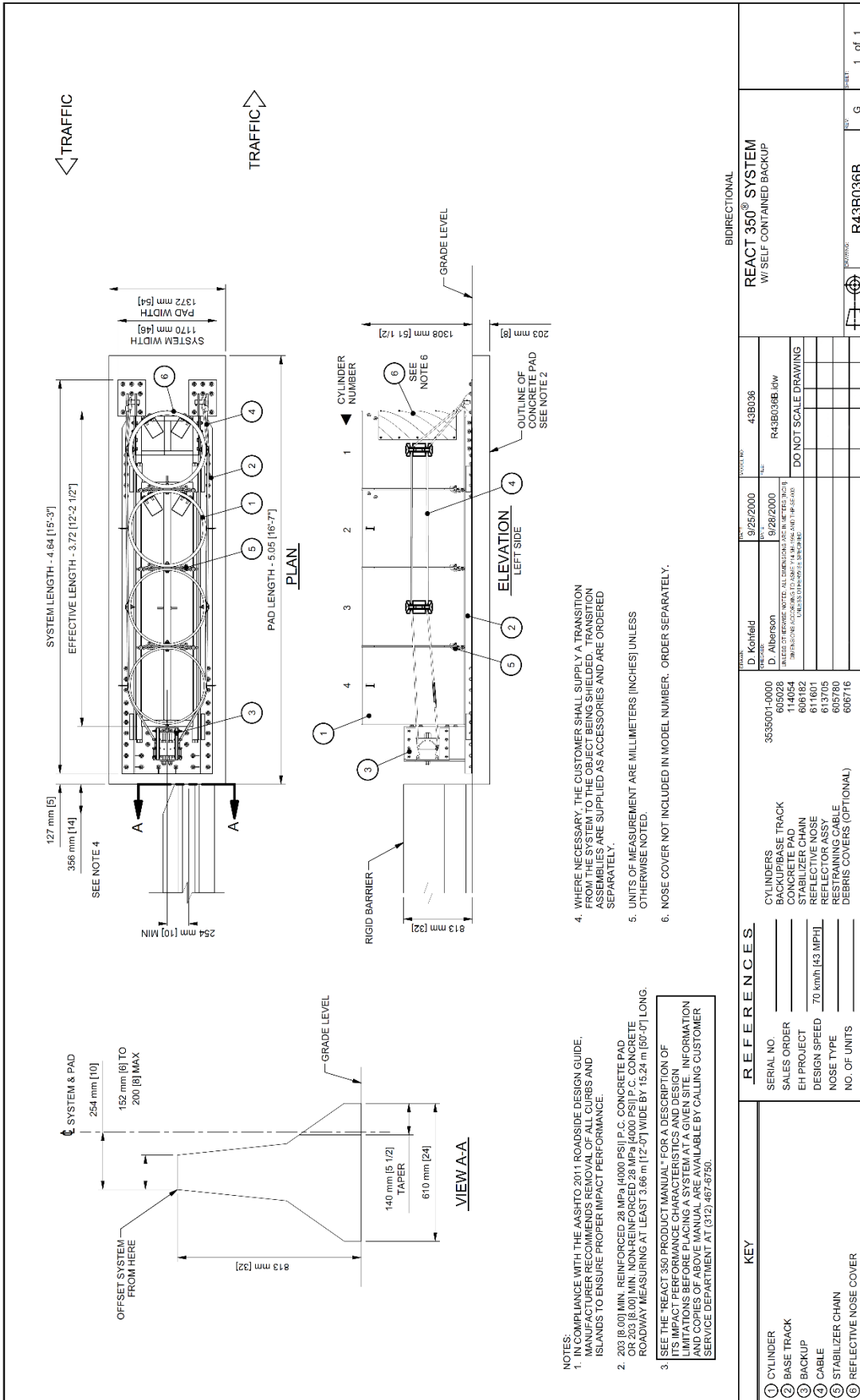
UNIDIRECTIONAL
 REACT 350® SYSTEM
 W/ SELF CONTAINED BU & TRANSITIONS, LR

| | |
|-------|----------------------|
| SCALE | DO NOT SCALE DRAWING |
| DATE | |
| REV | |
| NO. | |
| OF | |
| TOTAL | |

R43B036-TELR
 1 of 1



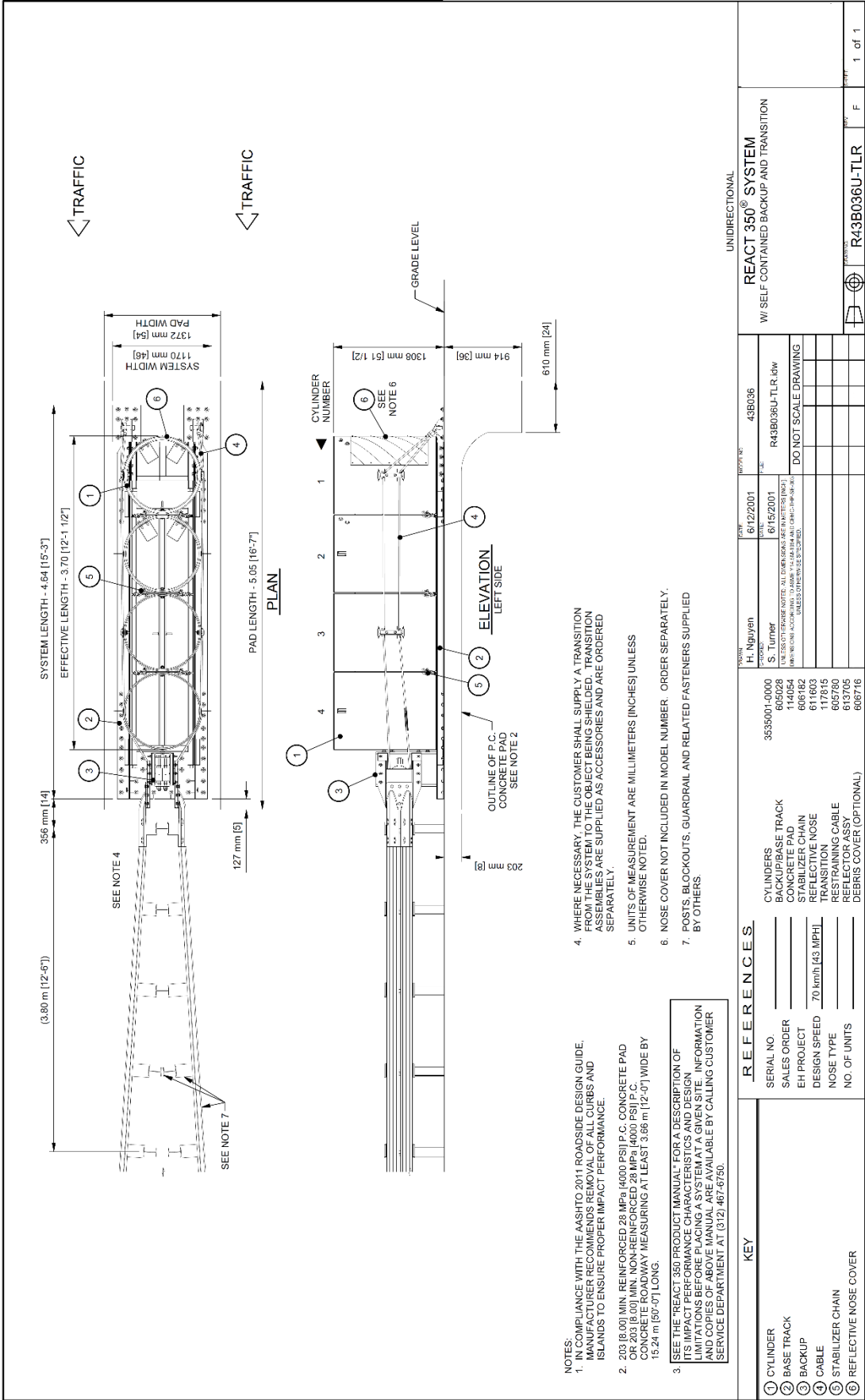
TL-2 w/Concrete Backup and Transition, Multi-Directional R43C036B



- NOTES:**
- IN COMPLIANCE WITH THE AASHTO 2011 ROADSIDE DESIGN GUIDE, MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
 - 203 (8.00) MIN. REINFORCED 28 MPa (4000 PSI) P.C. CONCRETE PAD OR 203 (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 "REACT 350 PRODUCT 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 (312) 487-8750.
 - WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION FROM THE SYSTEM TO THE OBJECT BEING SHIELDED. TRANSITION ASSEMBLIES ARE SUPPLIED AS ACCESSORIES AND ARE ORDERED SEPARATELY.
 - UNITS OF MEASUREMENT ARE MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.
 - NOSE COVER NOT INCLUDED IN MODEL NUMBER. ORDER SEPARATELY.

| KEY | | REFERENCES | | REACT 350 [®] SYSTEM W/ SELF CONTAINED BACKUP | |
|-------------------------|--------------|--------------------------|-----------|---|---------------|
| ① CYLINDER | 3535001-0000 | CYLINDERS | 9/25/2000 | MODEL NO. | 43B036 |
| ② BASE TRACK | 605028 | BACKUP/BASE TRACK | 9/26/2000 | REV. | R43B036B (0W) |
| ③ BACKUP | 114054 | CONCRETE PAD | | | |
| ④ CABLE | 606182 | STABILIZER CHAIN | | | |
| ⑤ STABILIZER CHAIN | 611601 | REFLECTIVE NOSE | | | |
| ⑥ REFLECTIVE NOSE COVER | 613705 | REFLECTOR ASSY | | | |
| | 605780 | RESTRAINING CABLE | | | |
| | 606716 | DEBRIS COVERS (OPTIONAL) | | | |
| DO NOT SCALE DRAWING | | | | | |
| DRAWING | | | R43B036B | | |
| REV. | | | 6 | | |
| SHEET | | | 1 of 1 | | |

TL-2 w/ Self Contained Backup, Bi-Directional, Offset R43B036B

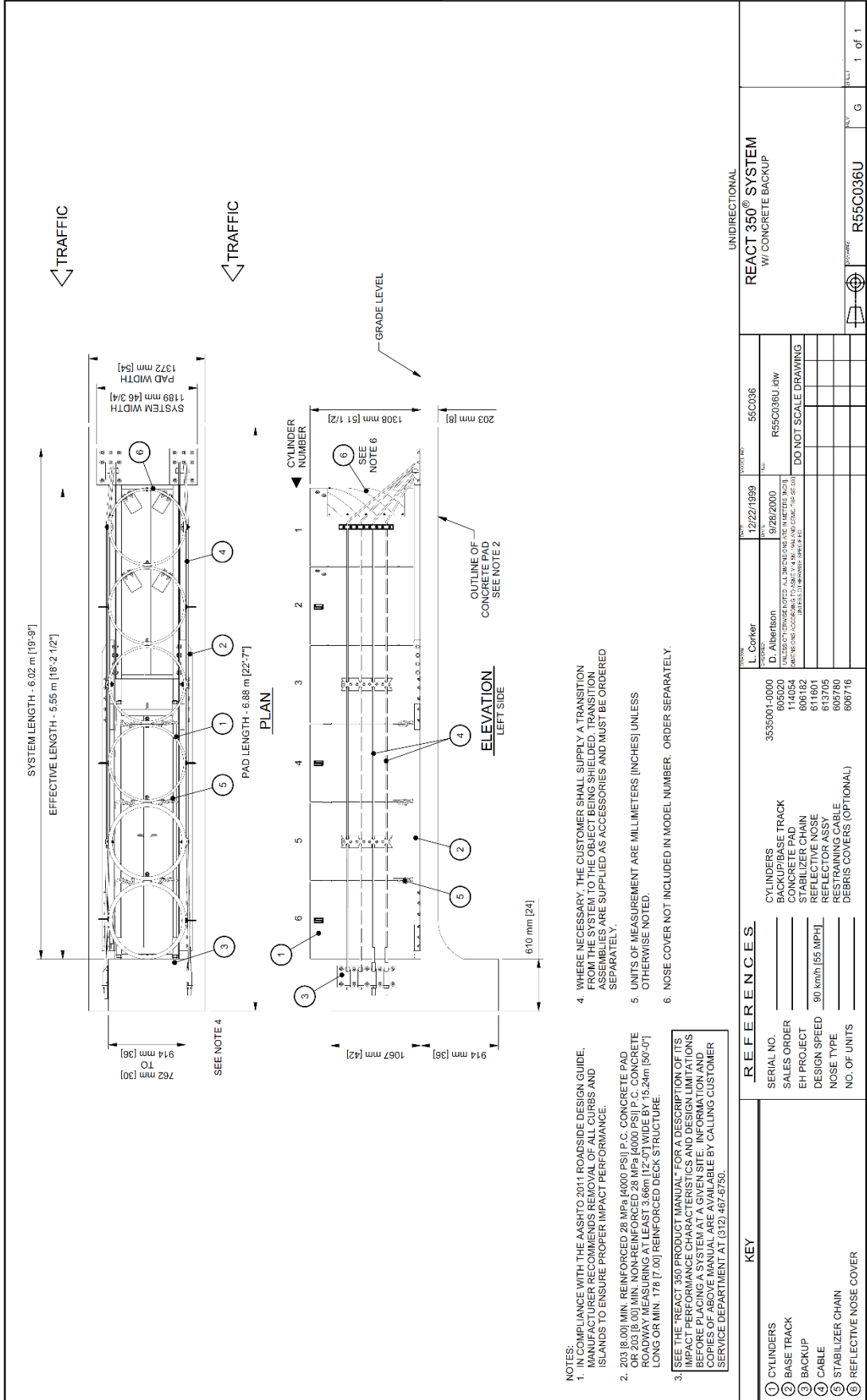


- NOTES:
- IN COMPLIANCE WITH THE AASHTO 2011 ROADSIDE DESIGN GUIDE, THE MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
 - 203 (8.00) MIN. REINFORCED 28 MPa (4000 PSI) P.C. CONCRETE PAD OR 203 (8.00) MIN. NON-REINFORCED 28 MPa (4000 PSI) P.C. CONCRETE ROADWAY MEASURING AT LEAST 3.96 m (12'-0") WIDE BY 15.24 m (50'-0") LONG.
 - SEE THE "REACT 350 PRODUCT 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 (312) 467-6750.
 - WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION FROM THE SYSTEM TO THE OBJECT BEING SHIELDED. TRANSITION ASSEMBLIES ARE SUPPLIED AS ACCESSORIES AND ARE ORDERED SEPARATELY.
 - UNITS OF MEASUREMENT ARE MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.
 - NOSE COVER NOT INCLUDED IN MODEL NUMBER. ORDER SEPARATELY.
 - POSTS, BLOCKOUTS, GUARDRAIL AND RELATED FASTENERS SUPPLIED BY OTHERS.

| KEY | REFERENCES |
|-------------------------|-------------------------|
| ① CYLINDER | 3535001-0000 |
| ② BASE TRACK | BACKUP/BASE TRACK |
| ③ BACKUP | CONCRETE PAD |
| ④ CABLE | STABILIZER CHAIN |
| ⑤ STABILIZER CHAIN | REFLECTIVE NOSE |
| ⑥ REFLECTIVE NOSE COVER | TRANSITION |
| | RETRAINING CABLE |
| | REFLECTOR ASSY |
| | DEBRIS COVER (OPTIONAL) |

| DESIGN | DATE | BY | APP'D BY | REVISION | DESCRIPTION |
|----------------------|-----------|----|----------|------------------|---|
| H. Nguyen | 6/12/2001 | | | 43B036 | UNIDIRECTIONAL |
| S. Turner | 6/15/2001 | | | R43B036U-TLR.dwg | W/ SELF CONTAINED BACKUP AND TRANSITION |
| DO NOT SCALE DRAWING | | | | | |

TL-2 w/Self Contained Backup & Guardrail Transition, Uni-Directional R43B036U-TLR



- NOTES:
- IN COMPLIANCE WITH THE AASHTO 2014 ROADSIDE DESIGN GUIDE, THE MANUFACTURER RECOMMENDS REMOVAL OF CYLINDERS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
 - 203 (8,000) MIN. REINFORCED 28 MPa (4000 PSI) P.C. CONCRETE PAD OR 203 (8,000) MIN. NON-REINFORCED 28 MPa (4000 PSI) P.C. CONCRETE ROADWAY MEASURING AT LEAST 3.66m (12'-0") WIDE BY 75.24m (50'-0") LONG OR MIN. 178 (7,000) REINFORCED DECK STRUCTURE.
 - SEE THE 'REACT 350 PRODUCT 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 (312) 467-6750.

- WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION FROM THE SYSTEM TO THE OBJECT BEING PROTECTED. TRANSITION ASSEMBLIES ARE SUPPLIED AS ACCESSORIES AND MUST BE ORDERED SEPARATELY.
- UNITS OF MEASUREMENT ARE MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.
- NOSE COVER NOT INCLUDED IN MODEL NUMBER. ORDER SEPARATELY.

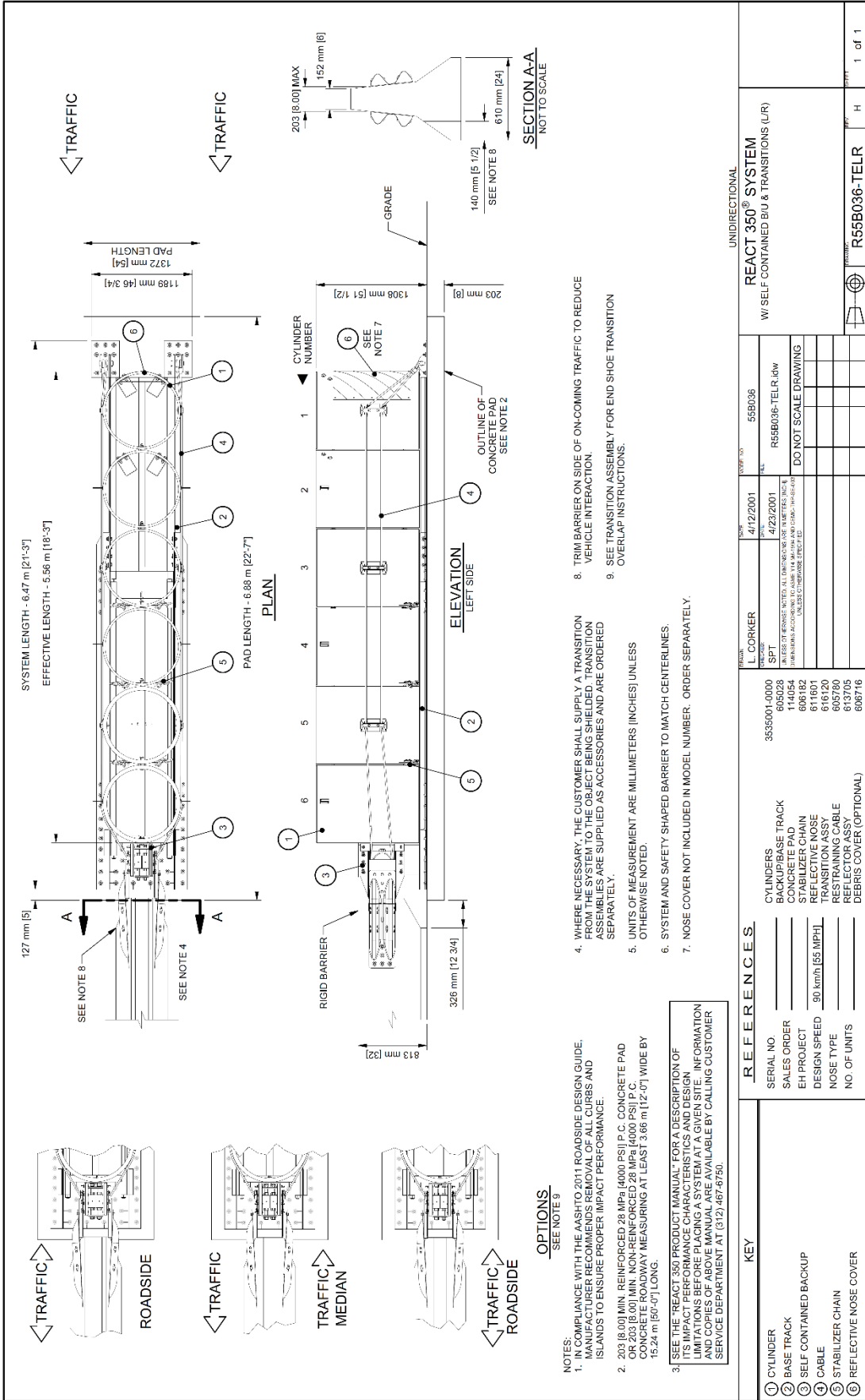
| KEY | |
|-----|------------------------|
| ① | CYLINDERS |
| ② | BASE TRACK |
| ③ | BACKUP |
| ④ | CABLE |
| ⑤ | STABILIZER CHAIN |
| ⑥ | REFLECTIVE NOISE COVER |

| REFERENCES | |
|--------------|--------------------------|
| SERIAL NO. | 35356001-0000 |
| SALES ORDER | BACKUP/BASE TRACK |
| EH PROJECT | CONCRETE PAD |
| DESIGN SPEED | STABILIZER CHAIN |
| NOSE TYPE | REFLECTIVE NOSE |
| NO. OF UNITS | RESTRAINING CABLE |
| | DEBRIS COVERS (OPTIONAL) |

| | |
|-------------|-----------------------------|
| DESIGNED BY | L. Coriker |
| CHECKED BY | D. Alberston |
| DATE | 12/22/1999 |
| SCALE | AS SHOWN |
| PROJECT NO. | 55C036 |
| MODEL NO. | R55C036U (dw) |
| REVISIONS | DO NOT SCALE DRAWING |
| | DATE OF REVISION: SPECIFIED |
| | BY: [REDACTED] |
| | DATE: [REDACTED] |
| | BY: [REDACTED] |
| | DATE: [REDACTED] |
| | BY: [REDACTED] |
| | DATE: [REDACTED] |
| | BY: [REDACTED] |
| | DATE: [REDACTED] |

| UNIDIRECTIONAL | |
|-------------------------------|----------|
| REACT 350 [®] SYSTEM | |
| W/ CONCRETE BACKUP | |
| MODEL NO. | R55C036U |
| REV. | 6 |
| SHEET | 1 of 1 |

56 mph [90 kph] w/Concrete Backup, Uni-Directional R55C036U



OPTIONS
SEE NOTE 9

- NOTES:
1. COMPLIANCE WITH THE AASHTO 2011 ROADSIDE DESIGN GUIDE. MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
2. 203 [8.00] MIN. REINFORCED 28 MPa [4000 PSI] P. C. CONCRETE PAD OR 203 [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.
3. SEE THE "REACT 350 PRODUCT 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 (312) 467-6750.

4. WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION FROM THE SYSTEM TO THE OBJECT BEING SHIELDED. TRANSITION ASSEMBLIES ARE SUPPLIED AS ACCESSORIES AND ARE ORDERED SEPARATELY.
5. UNITS OF MEASUREMENT ARE MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.
6. SYSTEM AND SAFETY SHAPED BARRIER TO MATCH CENTERLINES.
7. NOSE COVER NOT INCLUDED IN MODEL NUMBER. ORDER SEPARATELY.

8. TRIM BARRIER ON SIDE OF ON-COMING TRAFFIC TO REDUCE VEHICLE INTERACTION.
9. SEE TRANSITION ASSEMBLY FOR END SHOE TRANSITION OVERLAP INSTRUCTIONS.

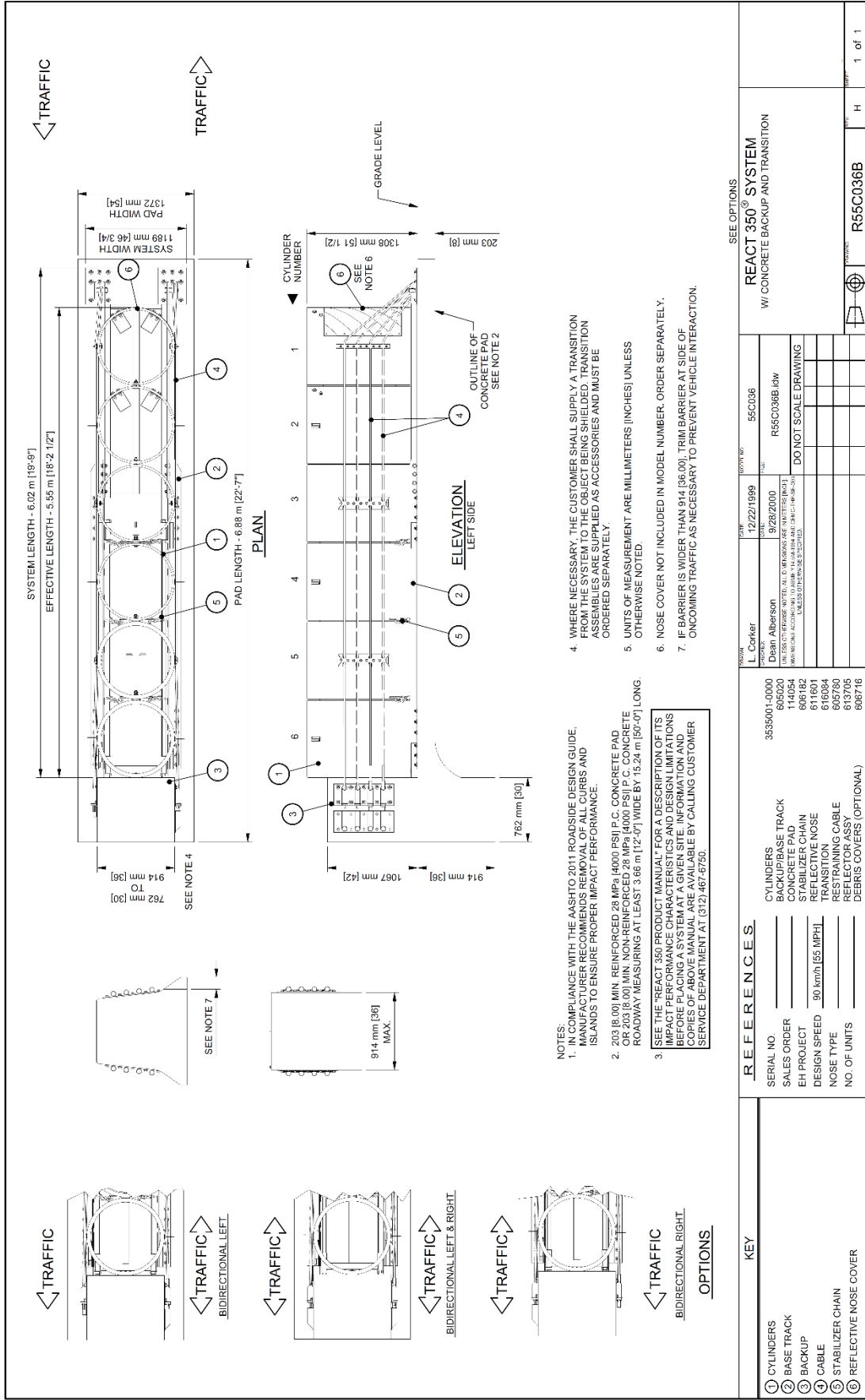
| KEY | |
|-----|-----------------------|
| ① | CYLINDER |
| ② | BASE TRACK |
| ③ | SELF CONTAINED BACKUP |
| ④ | CABLE |
| ⑤ | STABILIZER CHAIN |
| ⑥ | REFLECTIVE NOSE COVER |

| REFERENCES | |
|--------------|-------------------------|
| SERIAL NO. | CYLINDERS |
| SALES ORDER | BACKUP/BASE TRACK |
| EH PROJECT | CONCRETE PAD |
| DESIGN SPEED | STABILIZER CHAIN |
| NOSE TYPE | TRANSITION NOSE |
| NO. OF UNITS | REFLECTING ASSY |
| | REFLECTOR ASSY |
| | DEBRIS COVER (OPTIONAL) |

| REV | DATE | BY | DESCRIPTION |
|-----|-----------|-----------|---|
| 1 | 4/12/2001 | L. CORKER | ISSUED FOR REVISION NOTED. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SPECIFIED. |
| 2 | 4/23/2001 | SPT | ISSUED FOR REVISION NOTED. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SPECIFIED. |

| | |
|---|------------------|
| UNIDIRECTIONAL | |
| REACT 350 [®] SYSTEM | |
| W/ SELF CONTAINED BU & TRANSITIONS (LR) | |
| 555036 | 555036 |
| R55B036-TELR.dwg | R55B036-TELR.dwg |
| DO NOT SCALE DRAWING | |
| UNITS: MILLIMETERS (INCHES) | |
| SCALE: 1:1 | |
| PROJECT: R55B036-TELR | |
| SHEET: 1 of 1 | |

56 mph [90 kph] w/Self-Contained Backup and Transition, Multi-Directional R55B036-TELR



56 mph [90 kph] w/Concrete Backup and Transition, Multi-Direction R55C036B

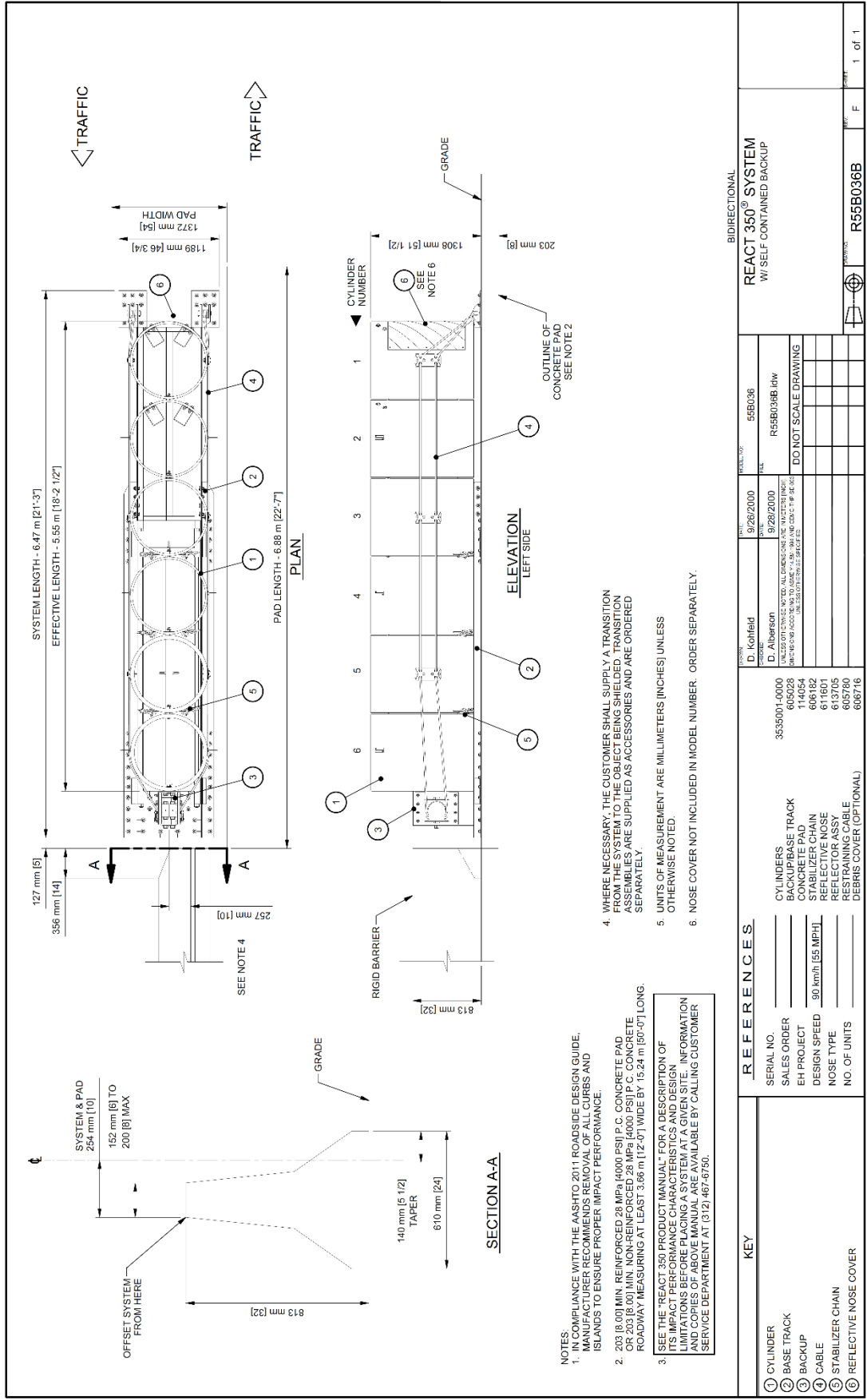
CONCRETE BACKUP SYSTEM

1 of 1

| KEY | | REFERENCES | | SEE OPTIONS | |
|-----|-----------------------|--|---|----------------------|------------|
| ① | CYLINDERS | SERIAL NO. | 3535001-0000 | REVISED | 55C036 |
| ② | BASE TRACK | SALES ORDER | CYLINDERS BACKUP/BASE TRACK CONCRETE PAD | DATE | 12/22/1999 |
| ③ | BACKUP | EH PROJECT | 1140354 | DATE | 9/28/2000 |
| ④ | CABLE | DESIGN SPEED | 90 km/h [55 MPH] | R55C036B HW | |
| ⑤ | STABILIZER CHAIN | NOSE TYPE | REFLECTIVE NOSE TRANSITION | DO NOT SCALE DRAWING | |
| ⑥ | REFLECTIVE NOSE COVER | NO. OF UNITS | REFLECTOR ASSEMBLY DEBRIS COVERS (OPTIONAL) | | |
| | | REACT 350 [®] SYSTEM W/ CONCRETE BACKUP AND TRANSITION | | | |

- NOTES:**
- IN COMPLIANCE WITH THE AASHTO 2011 ROADSIDE DESIGN GUIDE, MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
 - 203 (8,000) MIN. REINFORCED 28 MPa (4000 PSI) P.C. CONCRETE PAD OR 203 (8,000) 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 "REACT 350 PRODUCT MANUAL" FOR A DESCRIPTION OF ITS IMPACT PERFORMANCE CHARACTERISTICS AND DESIGN LIMITATIONS. COPIES OF ABOVE MANUAL ARE AVAILABLE BY CALLING CUSTOMER SERVICE DEPARTMENT AT (312) 467-6750.
 - WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION FROM THE SYSTEM TO THE OBJECT BEING SHIELDED. TRANSITION ASSEMBLIES ARE SUPPLIED AS ACCESSORIES AND MUST BE ORDERED SEPARATELY.
 - UNITS OF MEASUREMENT ARE MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.
 - NOSE COVER NOT INCLUDED IN MODEL NUMBER. ORDER SEPARATELY.
 - IF BARRIER IS WIDER THAN 914 (36.00), TRIM BARRIER AT SIDE OF ONCOMING TRAFFIC AS NECESSARY TO PREVENT VEHICLE INTERACTION.

OPTIONS



- NOTES:
- IN COMPLIANCE WITH THE AASHTO 2011 ROADSIDE DESIGN GUIDE, MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
 - 203 (8.00) MIN. REINFORCED 28 MPa (4000 PSI) P. C. CONCRETE PAD WITH 10% FIBER REINFORCEMENT. CONCRETE ROADWAY MEASURING AT LEAST 5.08 m (17' 0") WIDE BY 15.24 m (50' 0") LONG.
 - SEE THE REACT 350 PRODUCT 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 (312) 467-9796.
 - WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION SECTION TO BE USED TO TRANSITION FROM THE REACT 350 ASSEMBLY TO THE ROADWAY. TRANSITION ASSEMBLIES ARE SUPPLIED AS ACCESSORIES AND ARE ORDERED SEPARATELY.
 - UNITS OF MEASUREMENT ARE MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.
 - NOSE COVER NOT INCLUDED IN MODEL NUMBER. ORDER SEPARATELY.

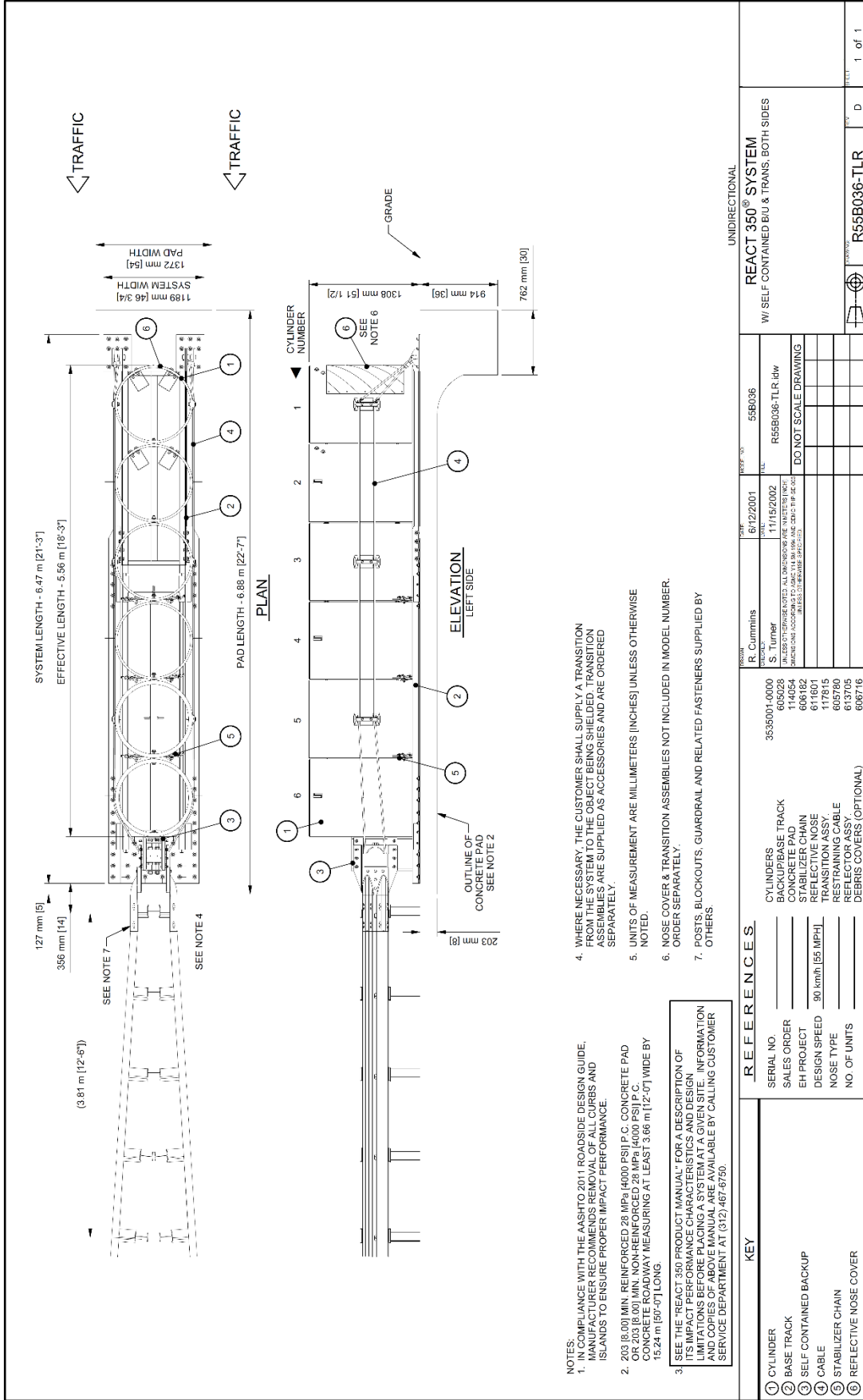
| KEY | |
|-----|-----------------------|
| ① | CYLINDER |
| ② | BASE TRACK |
| ③ | BACKUP |
| ④ | CABLE |
| ⑤ | STABILIZER CHAIN |
| ⑥ | REFLECTIVE NOSE COVER |

| REFERENCES | |
|--------------|------------------|
| SERIAL NO. | 3535001-0000 |
| SALES ORDER | 605028 |
| EH PROJECT | 114054 |
| DESIGN SPEED | 90 km/h [55 MPH] |
| NOSE TYPE | 606182 |
| NO. OF UNITS | 611801 |
| | 613705 |
| | 606716 |

| | | | |
|----------------------|------------|-----------|--------------|
| DESIGNER | D. Kohfeld | DATE | 9/26/2000 |
| DRAWN | D. Kohfeld | DATE | 9/26/2000 |
| CHECKED | D. Kohfeld | DATE | 9/26/2000 |
| SCALE | 55B036 | MODEL NO. | 55B036 |
| | | MODEL NO. | R55B036B low |
| DO NOT SCALE DRAWING | | | |

| | |
|---|----------|
| BIDIRECTIONAL | |
| REACT 350® SYSTEM W/ SELF CONTAINED BACKUP | |
| REV | F |
| DATE | |
| DESCRIPTION | R55B036B |
| SCALE | |
| 1 of 1 | |

56 mph [90 kph] w/Self Contained Backup, Bi-Directional, Offset R55B036B



- NOTES:
- COMPLIANCE WITH THE AASHTO 2011 ROADSIDE DESIGN GUIDE, MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
 - 203 (8.00) MIN. REINFORCED 28 MPa (4000 PSI) P.C. CONCRETE PAD OR 203 (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 "REACT 350 PRODUCT 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 (312) 467-6750.
 - WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION FROM THE SYSTEM TO THE OBJECT BEING SHIELDED. TRANSITION ASSEMBLIES ARE SUPPLIED AS ACCESSORIES AND ARE ORDERED SEPARATELY.
 - UNITS OF MEASUREMENT ARE MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.
 - NOSE COVER & TRANSITION ASSEMBLIES NOT INCLUDED IN MODEL NUMBER.
 - POSTS, BLOCKOUTS, GUARDRAIL AND RELATED FASTENERS SUPPLIED BY OTHERS.

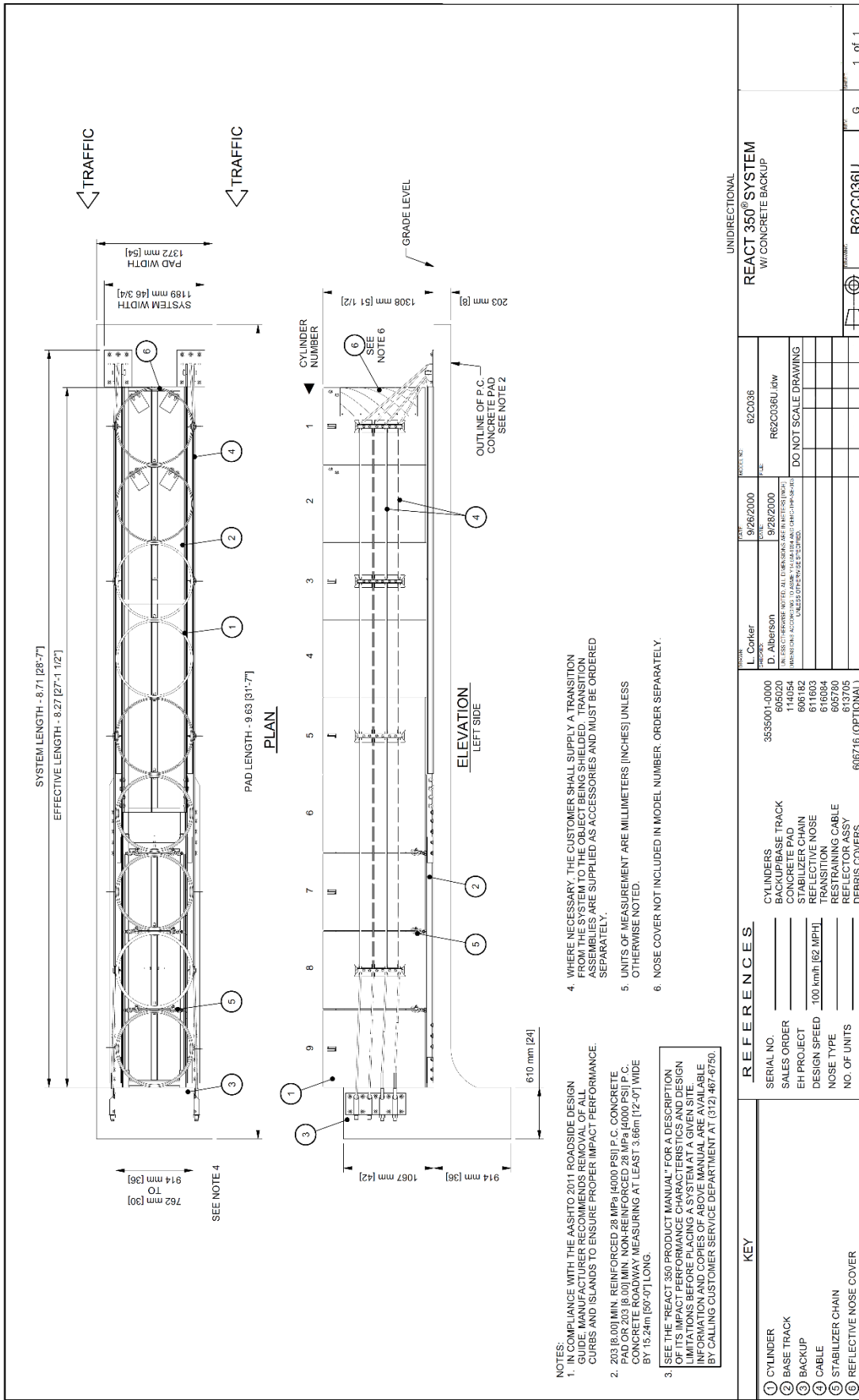
| KEY | |
|-----|-----------------------|
| ① | CYLINDER |
| ② | BASE TRACK |
| ③ | SELF CONTAINED BACKUP |
| ④ | CABLE |
| ⑤ | STABILIZER CHAIN |
| ⑥ | REFLECTIVE NOSE COVER |

| REFERENCES | |
|--------------|--------------------------|
| SERIAL NO. | CYLINDERS |
| SALES ORDER | BACKUP/BASE TRACK |
| EH PROJECT | CONCRETE PAD |
| DESIGN SPEED | STABILIZER CHAIN |
| NOSE TYPE | TRANSITION NOSE |
| NO. OF UNITS | REFLECTOR ASSEMBLY |
| | REFLECTOR ASSEMBLY |
| | DEBRIS COVERS (OPTIONAL) |

| REV. | DATE | BY | CHKD. | APP. NO. |
|------|-----------|------------|-------|-----------------|
| 1 | 6/12/2001 | R. Cummins | | 558036 |
| 2 | 1/15/2002 | S. Turner | | R55B036-TLR.dwg |

| | | | |
|---|--|-------------------|--|
| UNIDIRECTIONAL | | REACT 350® SYSTEM | |
| W/ SELF CONTAINED EIU & TRANS. BOTH SIDES | | R55B036-TLR | |
| DO NOT SCALE DRAWING | | UNIDIRECTIONAL | |
| REFLECTOR ASSEMBLY | | R55B036-TLR | |
| REFLECTOR ASSEMBLY | | D | |
| REFLECTOR ASSEMBLY | | 1 of 1 | |

56 mph [90 kph] w/Self Contained Backup and Transition, Uni-Directional R55B036-TLR



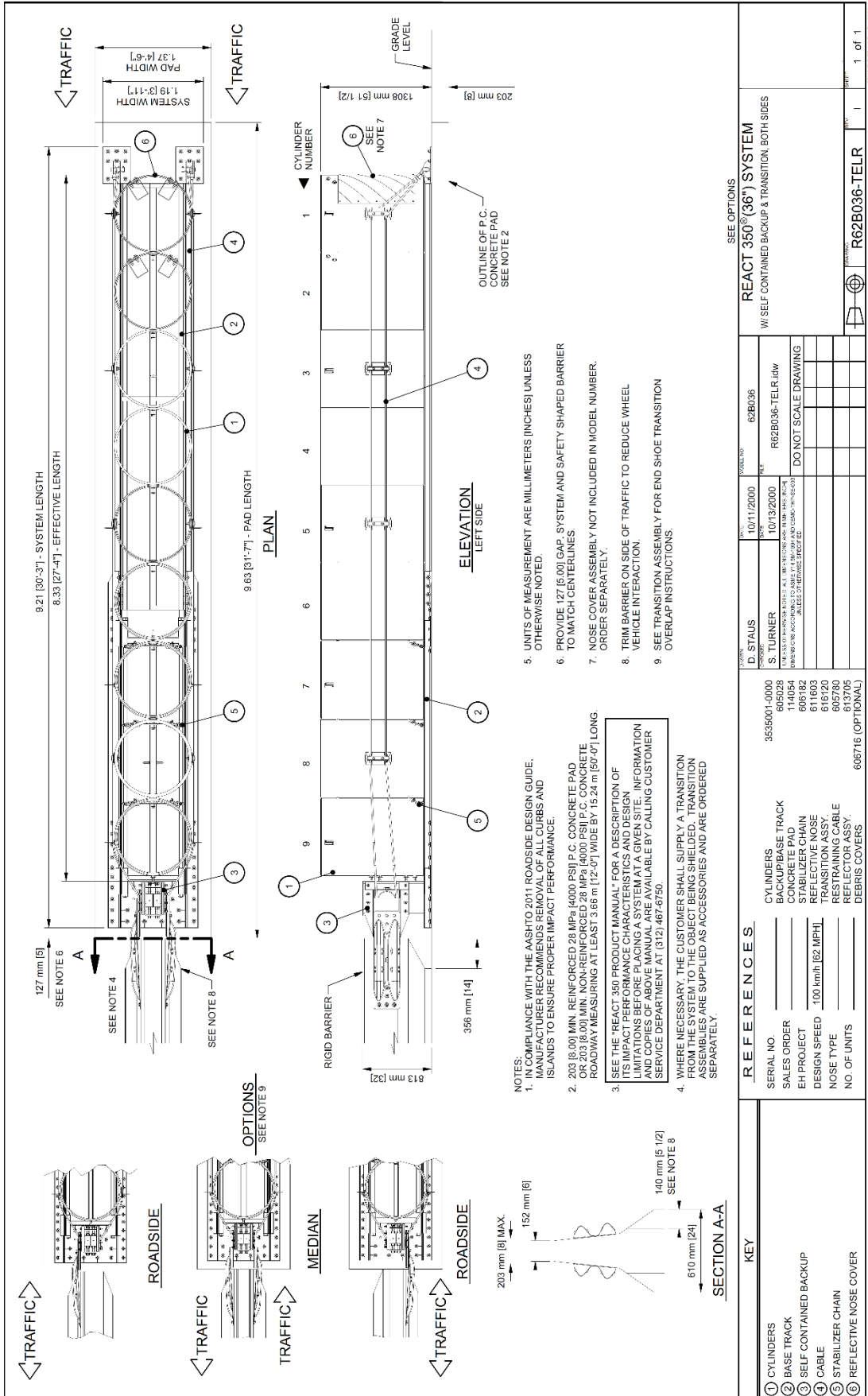
- NOTES:
1. IN COMPLIANCE WITH THE AASHTO 2011 ROADSIDE DESIGN GUIDE, MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
 2. 203 (8.00) MIN. REINFORCED 28 MPa (4000 PSI) P.C. CONCRETE PAD OR 203 (8.00) MIN. NON-REINFORCED 28 MPa (4000 PSI) P.C. CONCRETE ROADWAY MEASURING AT LEAST 3.56m (12'-0") WIDE BY 15.24m (50'-0") LONG.
 3. SEE THE "REACT 350 PRODUCT 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 (312) 467-6750.
 4. WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION FROM THE SYSTEM TO THE OBJECT BEING SHIELDED. TRANSITION ASSEMBLIES ARE SUPPLIED AS ACCESSORIES AND MUST BE ORDERED SEPARATELY.
 5. UNITS OF MEASUREMENT ARE MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.
 6. NOSE COVER NOT INCLUDED IN MODEL NUMBER. ORDER SEPARATELY.

| KEY | | REFERENCES | |
|-----|-----------------------|----------------|-------------------|
| ① | CYLINDER | SERIAL NO. | 3535001-0000 |
| ② | BASE TRACK | SALES ORDER | 606020 |
| ③ | BACKUP | EH PROJECT | 114054 |
| ④ | CABLE | DESIGN SPEED | 606182 |
| ⑤ | STABILIZER CHAIN | NOSE TYPE | 611603 |
| ⑥ | REFLECTIVE NOSE COVER | NO. OF UNITS | 605780 |
| | | REFLECTOR ASSY | 605780 |
| | | DEBRIS COVERS | 606716 (OPTIONAL) |

| | | | | | |
|--|-------------|------|-----------|-----------|--------------|
| DESIGNER | L. Corker | DATE | 9/26/2000 | MODEL NO. | 62C036 |
| CHECKER | D. Alderson | DATE | 9/26/2000 | P.E. | R62C036U.kdw |
| UNLESS SHOWN OTHERWISE, ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SPECIFIED. | | | | | |
| DO NOT SCALE DRAWING | | | | | |

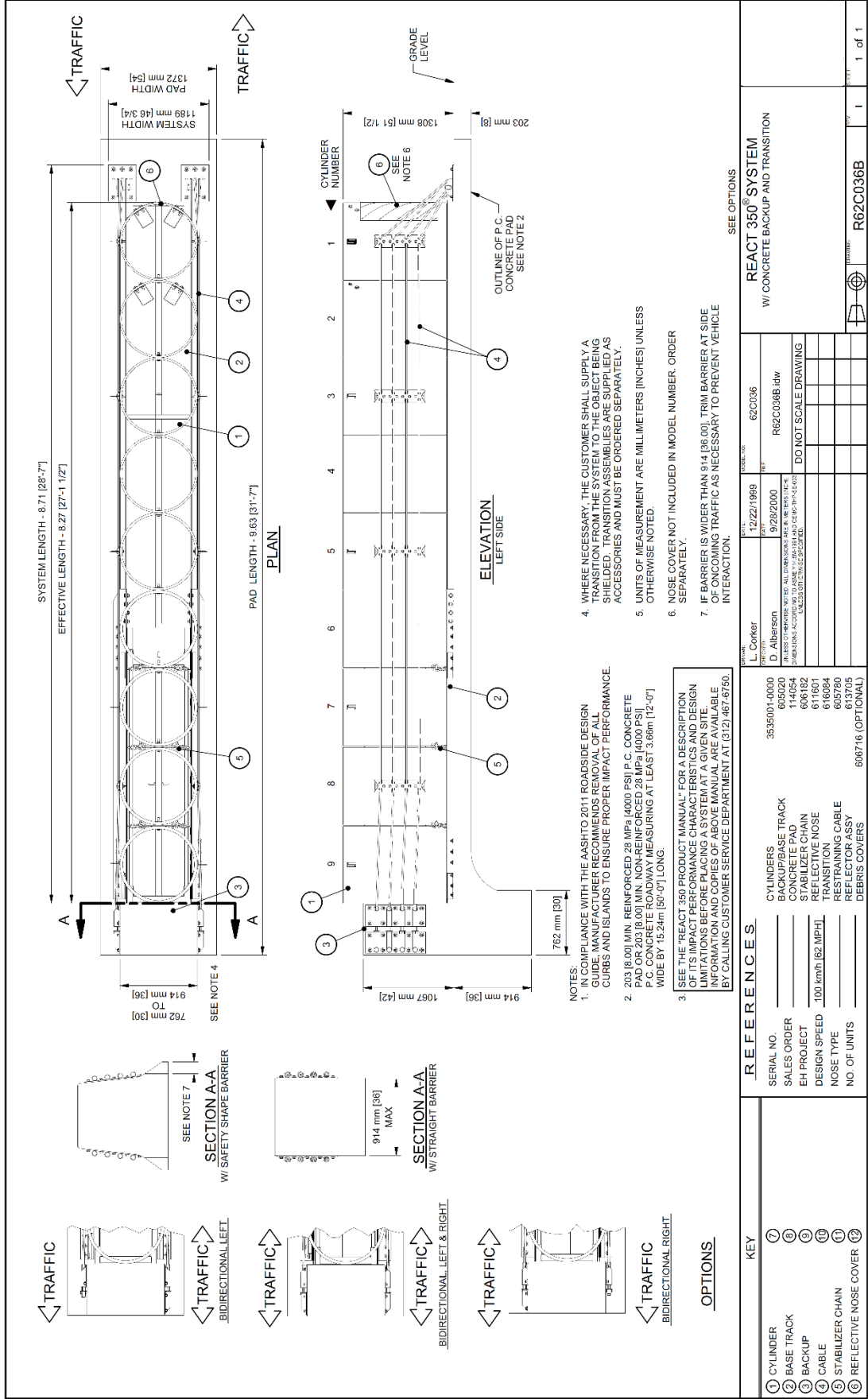
| | |
|----------------|--------------------------------------|
| UNIDIRECTIONAL | REACT 350® SYSTEM W/ CONCRETE BACKUP |
| PROJECT NO. | R62C036U |
| DATE | 9/26/2000 |
| SCALE | AS SHOWN |
| NO. OF SHEETS | 6 |
| SHEET NO. | 1 of 1 |

TL-3 w/Concrete Backup, Uni-Directional R62C036U

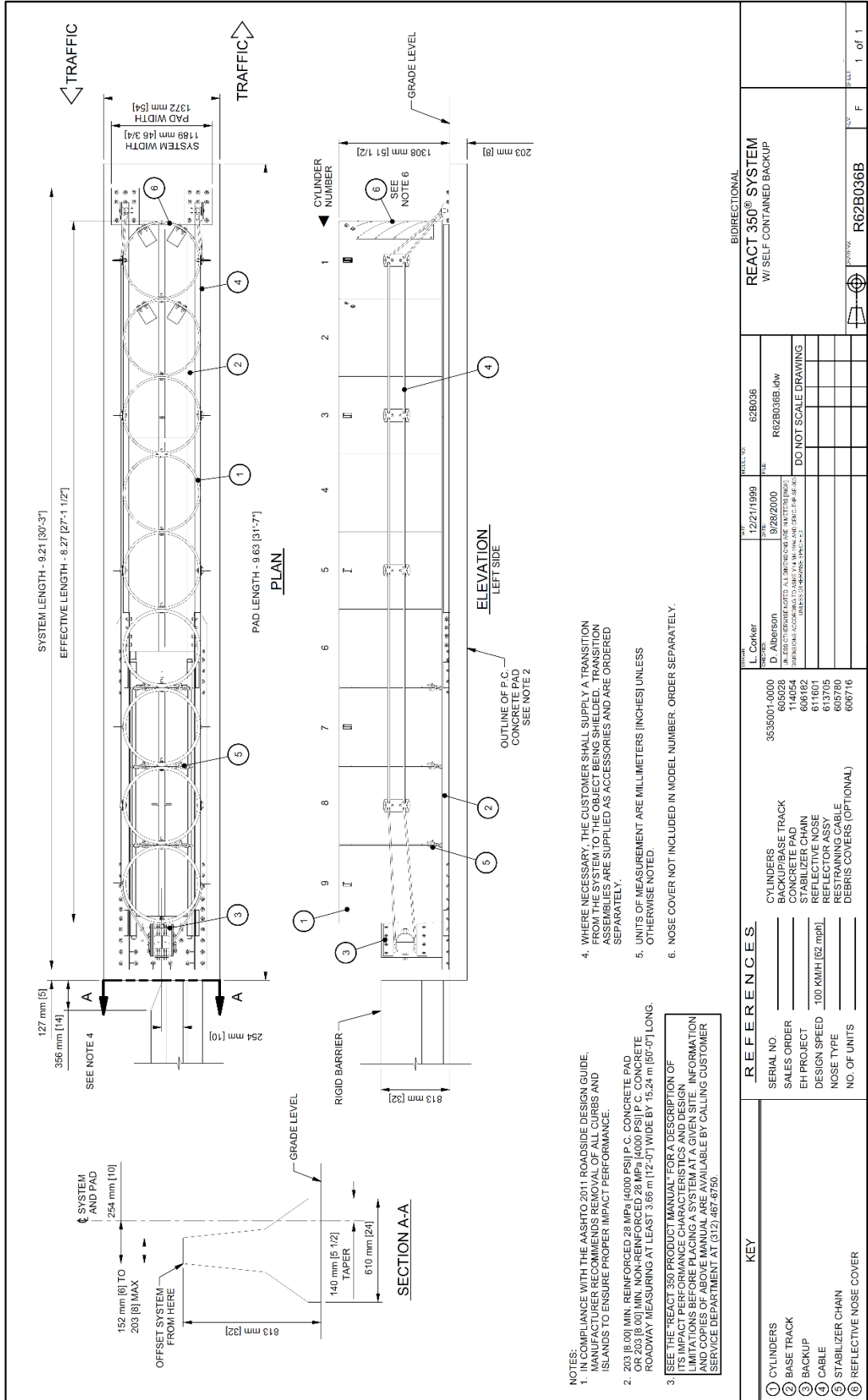


TL-3 w/Self-Contained Backup Transition, Multi-Directional R62B036-TEL R

- NOTES:**
- IN COMPLIANCE WITH THE ASHTO 2011 ROADSIDE DESIGN GUIDE, MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
 - 203 (8.00) MIN. REINFORCED 28 MPa (4000 PSI) P.C. CONCRETE PAD OR 203 (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 "REACT 350 PRODUCT 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 (312) 467-6750.
 - WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION FROM THE SYSTEM TO THE OBJECT BEING SHIELDED. TRANSITION ASSEMBLIES ARE SUPPLIED AS ACCESSORIES AND ARE ORDERED SEPARATELY.
 - UNITS OF MEASUREMENT ARE MILLIMETERS (INCHES) UNLESS OTHERWISE NOTED.
 - PROVIDE 127 (5.00) GAP, SYSTEM AND SAFETY SHAPED BARRIER TO MATCH CENTERLINES.
 - NOSE COVER ASSEMBLY NOT INCLUDED IN MODEL NUMBER. ORDER SEPARATELY.
 - TRIM BARRIER ON SIDE OF TRAFFIC TO REDUCE WHEEL VEHICLE INTERACTION.
 - SEE TRANSITION ASSEMBLY FOR END SHOE TRANSITION OVERLAP INSTRUCTIONS.

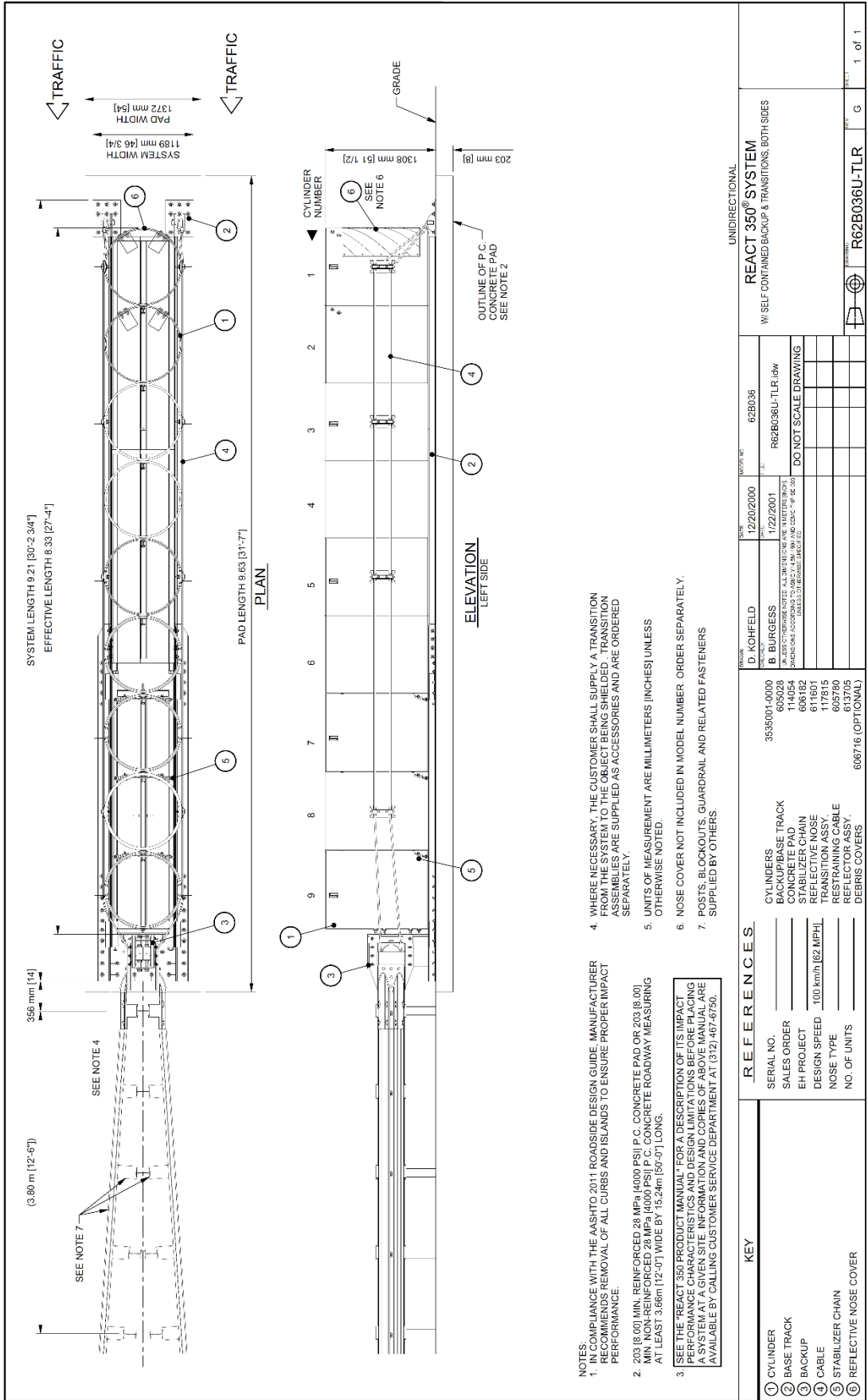


TL-3 w/Concrete Backup and Transition, Multi-Directional R62C036B



TL-3 w/Self Contained Backup and Transition, Bi-Directional, Offset R62B036B

1 of 1



- NOTES:
 1. COMPLIANCE WITH THE AASHTO 2014 ROADSIDE DESIGN GUIDE. MANUFACTURER RECOMMENDS REMOVAL OF ALL CURBS AND ISLANDS TO ENSURE PROPER IMPACT PERFORMANCE.
 2. 203 [8.00] MIN. REINFORCED 28 MPa [4000 PSI] P.C. CONCRETE PAD OR 203 [8.00] MIN. NON-REINFORCED 28 MPa [4000 PSI] P.C. CONCRETE ROADWAY MEASURING AT LEAST 3.86m [12'-0"] WIDE BY 15.24m [50'-0"] LONG.
 3. SEE THE "REACT 350 PRODUCT 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 (312) 467-6750.

4. WHERE NECESSARY, THE CUSTOMER SHALL SUPPLY A TRANSITION FROM THE SYSTEM TO THE OBJECT BEING SHIELDED. TRANSITION ASSEMBLIES ARE SUPPLIED AS ACCESSORIES AND ARE ORDERED SEPARATELY.
 5. UNITS OF MEASUREMENT ARE MILLIMETERS [INCHES] UNLESS OTHERWISE NOTED.
 6. NOSE COVER NOT INCLUDED IN MODEL NUMBER. ORDER SEPARATELY.
 7. POSTS, BLOCKOUTS, GUARDRAIL AND RELATED FASTENERS SUPPLIED BY OTHERS.

| KEY | |
|-----|-----------------------|
| ① | CYLINDER |
| ② | BASE TRACK |
| ③ | BACKUP |
| ④ | CABLE |
| ⑤ | STABILIZER CHAIN |
| ⑥ | REFLECTIVE NOSE COVER |

| REFERENCES | |
|--------------|-------------------|
| SERIAL NO. | 3535001-0000 |
| SALES ORDER | 605028 |
| EH PROJECT | 114054 |
| DESIGN SPEED | 100 km/h [62 MPH] |
| NOSE TYPE | 117815 |
| NO. OF UNITS | 609760 |
| | 606716 (OPTIONAL) |

| MODEL NO. | DATE | BY | REV. |
|--------------|------------|------------|------------------|
| R62B036U-TLR | 12/20/2000 | D. KOHFELD | 62B036 |
| | 1/22/2001 | B. BURGESS | R62B036U-TLR.law |

| UNIDIRECTIONAL | |
|--|--------|
| REACT 350 [®] SYSTEM | |
| W/ SELF CONTAINED BACKUP & TRANSITIONS, BOTH SIDES | |
| DO NOT SCALE DRAWING | |
| UNIT | 1 of 1 |

TL-3 w/Self Contained Backup and Guardrail Transitions, Uni-Directional R62B036U-TLR

Notes:



For more complete information on Valtir products and services, visit us on the web at www.valtir.com. Materials and specifications are subject to change without notice. Please contact Valtir to confirm that you are referring to the most current instructions.

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