SHEET	DESCRIPTION
1 of 11	Universal TAU-M General Notes - Permanent
2 of 11	Universal TAU-M System Lengths
3 of 11	Universal TAU-M Foundation, Concrete Pad
4 of 11	Universal TAU-M Foundation Specifications
5 of 11	Universal TAU-M Test Level 2 System Layout
6 of 11	Universal TAU-M Test Level 2 System Layout
7 of 11	Universal TAU-M Transition to W-Beam Guardrail
8 of 11	Universal TAU-M Bidirectional Transition
9 of 11	Universal TAU-M Transition to Concrete Barrier with End Shoe
10 of 11	Universal TAU-M Transition to Offset Concrete Barrier with End Shoe
11 of 11	Universal TAU-M Foundation Extension, Concrete

UNIVERSAL TAU-M GENERAL NOTES - PERMANENT

- 1. THE ENERGY ABSORBING SYSTEM REPRESENTED ON THIS APPROVED PRODUCT LIST (APL) IS A PROPRIETARY DESIGN BY LINDSAY TRANSPORTATION SOLUTIONS (LTS) AND MARKETED UNDER THE TRADE NAME UNIVERSAL TAU-M.
- 2. THE UNIVERSAL TAU-M IS A REDIRECTIVE, NON-GATING CRASH CUSHION DESIGNED TO SHIELD HAZARDS UP TO 30 INCHES IN WIDTH. THE BEGINNING LENGTH OF NEED SHALL BE AT THE POINT OF INTERSECTION BETWEEN THE FACE OF THE CRASH CUSHION AND THE TRANSVERSE CENTERLINE OF THE FIRST MID-SUPPORT.
- 3. THE UNIVERSAL TAU-M HAS BEEN EVALUATED TO MASH CRASH TESTING CRITERIA AND IS SUITABLE FOR TEST LEVEL 2 CRASH CUSHION APPLICATIONS.
- 4. THE UNIVERSAL TAU-M SHALL BE ASSEMBLED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DETAILED DRAWINGS, PROCEDURES, SPECIFICATIONS, PRODUCT MANUAL, OR INSTALLATION GUIDE. INFORMATION AND COPIES OF THE ABOVE MANUAL ARE AVAILABLE ON THE APPROVED PRODUCT LIST (APL).
- 5. THE UNIVERSAL TAU-M IS AVAILABLE IN 30" NOMINAL WIDTH.
- 6. THE UNIVERSAL TAU-M SHALL BE CONSTRUCTED PARALLEL TO THE APPROACH TRAVEL LANE AND ON CROSS SLOPES 1:10 OR FLATTER.
- 7. METALLIC COMPONENTS SHALL MEET THE GALVANIZING REQUIREMENTS FOR GUARDRAIL, SECTION 967 OF THE FDOT SPECIFICATIONS.
- 8. ONLY THE UNIVERSAL TAU-M TYPE B ENERGY ABSORBING CARTRIDGES SHALL BE USED AS SHOWN ON THE DRAWINGS.
- 9. SUPPLY ADEQUATE TRANSITION FROM THE UNIVERSAL TAU-M SYSTEM TO THE OBJECT BEING SHIELDED IN BI-DIRECTIONAL APPLICATIONS.
- 10. UNITS OF MEASURE ARE IN ENGLISH UNITS.

© 2019 LINDSAY TRANSPORTATION SOLUTIONS THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF BARRIER SYSTEMS INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACTIONS DECIMAL ANGLES ±1/16 .XX = ±.03 ±1/2*			LINDSA TRANSPORTATION SOLUTION				Tel: 888-800-3691	
PERMISSION OF E PROHIBITED.	BARRIER SYSTEMS INC. IS	.XXX = ±.010				UNIVERSAL TAU-M,			TEST LEVEL 2.	
APF	PROVALS	INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-1994						STATE OF FLORID	Carlo access to the second of	
DRAWN BY:	NMB	THIRD ANGLE PROJECTION	С	AP 01398	09/23/19	ĺ		APL NO. 544-00	2-001	
DRAWN DATE:	3/18/2019	67	В	AP 01398	06/03/19	SIZE	DWG NO.		anda W Merce	REV.
APPR'D BY:	GAD		Α	AP 01398	03/18/19	В		BSI-1903002	2-AP	IC.
APPR'D DATE:	3/18/2019	DO NOT SCALE DRAWING	REV	ECN#	DATE	SCALE	1:1	FDOT APL 544-002-0	01 SHEET 1 OF 11	
	A						Y			

Doc. B100108

4

3

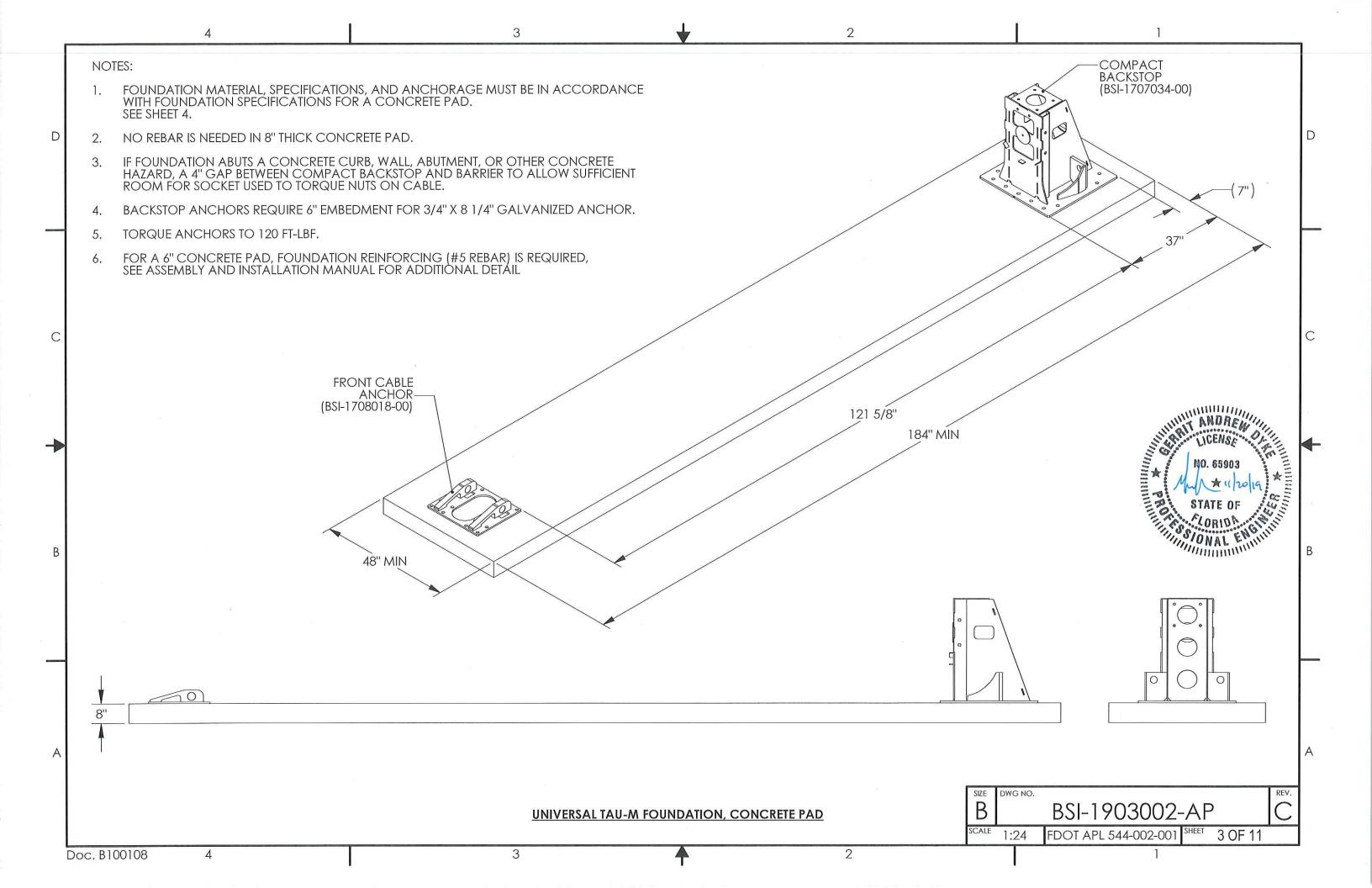
2

Saved by: phana: Tilesday November 19 2019 3:44:

D

NOTES: SYSTEM WIDTH IS NOMINAL, MEASURED AT THE BACKSTOP. ACTUAL WIDTH BETWEEN END PANELS IS 27 1/2". TO ACHIEVE 30"
WIDTH BETWEEN END PANELS, SPREAD END
PANELS TO FIT HAZARD PRIOR TO TORQUING
SLIDER BOLTS AT END PANEL MOUNTS. TL2 DESIGN SPEED: 40 mph PAD LENGTH IS ROUNDED TO THE NEAREST GUARDRAIL CONCRETE INCH. **SYSTEM** MODEL SYSTEM DESIGN DESIGN PAD WIDTH NUMBER LENGTH LENGTH LENGTH LENGTH 30TM070CC 14'-3" 10'-7" 11'-7" 15'-4" SYSTEM LENGTH DESIGN LENGTH TAU-M Width (in) Speed (km/h) DEPARTURE LINE (27 1/2") 30 TM 070 C C Anchoring Package BEGINNING OF LENGTH OF NEED-Backstop A - Asphalt C - Concrete PAD LENGTH N - None C - Compact X - Asphalt without **PLAN** Epoxy & Hardware UNIVERSAL TAU-M IDENTIFICATION NUMBER G FIRST POST (GUARDRAIL APPLICATIONS) STATE OF STA GUARDRAIL DESIGN LENGTH --**BEGINNING OF** LENGTH OF NEED-**ELEVATION** SIZE REV. BSI-1903002-AP **UNIVERSAL TAU-M SYSTEM LENGTHS** SCALE 1:48 FDOT APL 544-002-001 2 OF 11 Doc. B100108 3 2 4

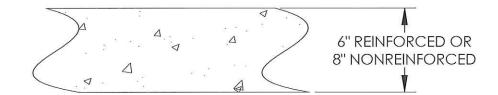
C



NOTES:

- 1. THE UNIVERSAL TAU-M CRASH CUSHION SYSTEM HAS BEEN DESIGNED TO ATTACH TO CONCRETE OR ASPHALT FOUNDATIONS. FOR PERMANENT APPLICATIONS, FDOT REQUIRES THE USE OF A CONCRETE FOUNDATION. USE THE ANCHORAGE SPECIFIED BELOW DEPENDING ON THE FOUNDATION AT THE JOB SITE. REFER TO TAU-M FOUNDATION DRAWINGS.
- 2. FOR CHEMICAL ANCHORS, USE 3/4" GRADE 2 THREADED ROD WITH EPOXY PROVIDING A MINIMUM PULL OUT STRENGTH OF 39,000 LBF AND MINIMUM SHEAR STRENGTH OF 32,000 LBF IN 4,000 PSI CONCRETE.

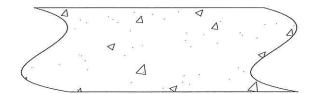
CONCRETE PAD



FOUNDATION: MINIMUM 6IN. REINFORCED CONCRETE PAD OR 8IN. NONREINFORCED CONCRETE PAD.

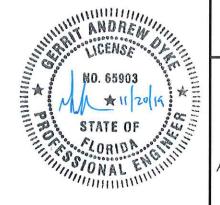
ANCHORAGE: 3/4 IN. X 8 1/4 IN. GALVANIZED ANCHOR WITH 6IN. EMBEDMENT OR 3/4" MECHANICAL ANCHORS WITH AN EMBEDMENT THAT IS IN ACCORDANCE WITH ANCHOR MANUFACTURER'S SPECIFICATIONS AND MEETS PULL OUT AND SHEAR STRENGTH REQUIREMENTS REFERENCED IN NOTE 2 ABOVE.

PORTLAND CEMENT CONCRETE (PCC)



STONE AGGREGATE CONCRETE MIX 4,000 PSI MINIMUM COMPRESSIVE STRENGTH.

THE CONTRACTOR IS TO FURNISH A CERTIFICATION THAT THE CONCRETE INSTALLED MEETS THE STRENGTH REQUIREMENTS.



UNIVERSAL TAU-M FOUNDATION SPECIFICATIONS

B BSI-1903002-AP C SCALE NTS FDOT APL 544-002-001 SHEET 4 OF 11

Doc. B100108

4

3

2

1 1000000000000000000000000000000000000	77 No. 150/2009 No. 50000 NO.	300 SECTION AND ADMINISTRATION ADMINISTRATION AND A	
1	B030703	MIDDLE SUPPORT ASSEMBLY	3
2	BSI-1708032-00	END PANEL MOUNT, GALVANIZED, TAU-M	4
3	B010722	CARTRIDGE, TAU-II, TYPE B, ENERGY ABSORBING	4
4	BSI-1708019-00	SLIDING PANEL, GALVANIZED, TAU-M	8
5	BSI-1708030-00	END PANEL, THRIE-BEAM, GALVANIZED, TAU-M	2
6	B030704	FRONT SUPPORT	1
7	K001005	tau-II front support leg kit	1
8	BSI-1708018-00	GALVANIZED CABLE ANCHOR, TAU-M, PARALLEL	1
9	K001003	TAU II SLIDER KIT	4
10	BSI-1707032-00	GALVANIZED CABLE GUIDE, TAU-M	6
11	2001791	WASHER SL, 1/2" STANDARD, FINISH: GEOMET	24
12	2001797	NUT HN, 1/2-13, GR5, FINISH: GEOMET	24
13	BSI-2001957	C-Scr HH 1/2-13 x 3 1/4, Gr5 Geomet, PARTIALLY THREADED	24
14	BSI-1805036-00	CABLE ASSEMBLY, 4 BAY, TAU-M	2
15	2001789	NUT HN, 3/4-10, GR5, FINISH: GEOMET	8
16	2001790	WASHER FLAT, 3/4" STD, FINISH: GEOMET	12
17	BSI-2001956	C-Scr HH 3/4-10 x 3 1/2, Gr5 Geomet, PARTIALLY THREADED	4
18	BSI-1708027-00	BRACKET, DELINEATION TAU-M	1
19	2001795	C-SCR HH, 3/4-10 X 2, GR5, FINISH: GEOMET	4
20	2001810	WASHER FLAT, 3/8" STANDARD, FINISH: GEOMET	4
21	2001811	WASHER SL, 3/8" STANDARD FINISH: GEOMET	2
22	2001809	NUT HN, 3/8-16, GR5, FINISH: GEOMET	2
23	2001816	C-SCR HH, 3/8-16 X 1 1/2, GR5 FINISH: GEOMET	2
24	BSI-1709083-KT	TETHER KIT, TAU-M	1
25	BSI-1711051-00	TOW HOOK, GALVANIZED, TAU-M	4
26	BSI-1803016-00	SLIDER SHIM, GEOMET, TAU-M	16
27	B011001	THREADED ANCHOR 3/4-10x8 1/4 Gr2	25
28	2001399	NUT HN 3/4-10 HVY A563 HD GALV	25
29	2001380	WSHR 3/4 F436 FLAT RD STRUCT	25
30	4004301	EPXY ULTB 1, A22+1 NOZL	2
31	BSI-1707034-00	COMPACT BACKSTOP, GALVANIZED TAU-M, PARALLEL SE FOR CONCRETE FOUNDATIONS	1

Description

QTY

* NOT SHOWN, USE FOR CONCRETE FOUNDATIO

500 ft-lbs (675 N-m)

120 ft-lbs (160 N-m)

70 ft-lbs (95 N-m)

30 ft-lbs (48 N-m)

CABLE NUTS
SYSTEM COMPONENT INSTALLATION

TOW HOOKS

Doc. B100108

CABLE GUIDE BOLTS

END PANEL MOUNT TO BACKSTOP

UNIVERSAL TAU-M TEST LEVEL 2 SYSTEM LAYOUT

3

2

ITEM

PART NO.

Saved by: nbang: Tuesday, Nover

