



**Telecommunications Industry Association**

1310 North Courthouse Road, Suite 890  
Arlington, VA 22201 | [www.tiaonline.org](http://www.tiaonline.org)

**Approved by General Counsel**

TR-14 Structural Standards for Communication and Small Wind Turbine  
Support Structures Engineering Committee

Meeting Date: 14 October 2021

Location: Teleconference

Approved: 29 November 2021

## TR-14 Structural Standards for Communication and Small Wind Turbine Support Structures Engineering Committee

<http://www.tiaonline.org/all-standards/committees/tr-14>

### MEETING REPORT

Date: October 14, 2021  
Time: 1 – 5 PM, EDT  
Location: Virtual  
Meeting Room: Virtual  
Chair: Bryan Lanier, PE, SE  
Vice Chair: David Hawkins, PE  
Secretary: Chris Ply, PE, SE  
Meeting Link: <https://register.gotowebinar.com/register/4268056066694973454>

### Sequence of Topics

#### 1. Administrative/General Business

##### 1.1 Call to Order

TR-14 Chair, Bryan Lanier called the meeting to order at 1:03 PM ET

- Dave Hawkins motioned for the meeting to be opened, it was seconded by Dale Heath – no objections or discussion

##### 1.2 Attendance

This was a non-Quorum meeting:

The following individuals were reported as attendees:

Attendee Details		
Last Name	First Name	Organization
Abel	Dennis	FDH Infrastructure Services
Adam Amortnont	TEP	Tower Engineering Professionals
Ahuja	Nitesh	SBA Communications
Alqazzaz	Jaffar	SBA Communications
Androvich	Deborah	Irish Tower, LLC
Arthur	Jeffrey	Engineered Tower Solutions, PLLC
Atchley	Cyrus	FDH Infrastructure Services, LLC

Balakrishnan	sharmila	Engineered Solutions	Tower
Baltar	Robert		
Barker	Tyler	Old Sorrell Engineering PLLC	
Bartok	Blake	Delta Oaks Group	
Bello	Abdul-Azeez	American Towers Corporation (ATC)	
Blakeman	Daniel	Vertical Structures, Inc.	
Branagan	Matt	Crown Castle	
Bridges	Paul	ETS, PLLC	
Bunch	Leah		
Burbage	George	ELEVATED STRUCTURAL CONSULTANTS, LLC	
Burton	Chad	GPD Group	
Cabrera	Carolina	American Corportion	Tower
Carr	Ryan	Sabre Industries	
Chapman	Brandon	Valmont	
Chavda	Mital	Valmont	
Chojnacki	Peter	Tower Numerics Inc.	
Chris Sandlin	Paul J Ford		
Chris Scheks	GPD Group	GPD Group	
Connor	James	Infinigy Engineering	
Cooke	Lance	Morrison Hershfield	
Coomes	Nathan	Paul J. Ford & Company	
Crawford	Thomas	Aria Services, Inc.	
Cullum	Richard	Crown Castle	
Dave Stehlin	TIA	Telecommunications Industry Association	
De Boer	Michael	Vertical Bridge	
Deese	Michael	American Corporation	Tower
Dehnke	Thomas	Paul J. Ford and Company	
Diaz	Justin	Foresite Group	
Drennen	Jesse	GeoStructural LLC	
Dukes	Jazalyn	NIST	

ERICHSEN	JOHN	EET, LLC
Fann	Avery	Kimley-Horn and Associates, Inc.
Fann	Avery	Kimley-Horn and Associates, Inc.
Farinella	Joe	Shively / Howell Labs
Fehlhafer	Steven	Towerkraft Engineering, P.C.
Ferguson	Luke	Valmont
Fleck	Matt	Kimley-Horn and Associates
Franceschino	Carlo	Sabre Industries
Fresch	Jesse	Crown Castle
Gastelum	Heather	T-Mobile
Geery	Ian	Infinigy Engineering
George	Don	GeoStructural LLC
Gibson	Corey	MasTec Network Solutions
Glover	Ronald	Tower Engineering Professionals
Goncalves da Silva	Gustavo	Engineered Tower Solutions, PLLC
Gruman	Dan	Engineered Tower Solutions
Gualtieri	Tony	TECTONIC
Guerrero	Ryan	Insite, Inc
Hagos	Asmerom	SBA Communications Corporation
Hall	Chris	Crown Castle
Hawkins	Dave	Paul J. Ford and Company
Heath	Dale	
Heine	Eric	Ehresmann Engineering, Inc.
Hilgoe	Scott	Engineered Tower Solutions, PLLC
Hilgoe	Scott	
Hill	Jason	ETS, PLLC
Hill	Christopher	P. Marshall & Associates, LLC

Hill	David	Sabre Industries
Hipp	Hailey	FDH-IS
Holt	Will	Telamon
Hu	Jiazhu	Nexus
Huwel	Jamal	Crown Castle
James Rowley	Dixon Engineering	
Jamison	Kyle	Paul J Ford
Jenkins	Teesha	TIA
Jiang	Ping	Black & Veatch Corporation
Jiang	Vincent	Jacobs Telecommunications, Inc
Joe Borrelli	Delta Oaks Group	
Johnston	Joseph	Airosmith
Jolly	Christopher	American Tower Corporation
Jones	JP	Safety LMS
Julian	Rod	
Kang	Michelle	Colliers Engineering & Design
Keith Tindall	Sabre Industries	Sabre Industries
Kelly	Brendan	GPD Group
Kelsey	Brandon	Dewberry Engineers Inc.
Kermode	Brian	
Kisting	Scott	PTS Advisors
Kisting	Justin	
Kline	Justin	Paul J Ford
Kong	Jianwei	Tower Engineering Solutions, LLC
Kosiba	Doug	Engineered Tower Solutions, PLLC
Krupakaran Kolandaivelu	NB&C	NB+C
Kumar	Dinesh	Comptek Technologies
Lahmann	Jacob	Valmont Industries
Lanier	Bryan	American Tower Corporation
Lassiter	Michael	Delta Oaks Group
Lopez	Helder	Nexus
Lucas	Gary	NB+C

Ludas	Peter	NB+C
MacLaren	Bryan	MasTec
Malouf	Mark	MALOUF ENGINEERING INTERNATIONAL INC
Marshalek	Jason	Network Building + Consulting
Marshall	Ray	ETS, PLLC
Martin	Jefferson	Kenwood Telecom
Martin	Jason	
Martinez	Gilberto	Colliers Engineering and Design
Mathis	Andrew	Vertical Structures, Inc.
McGarry	Tom	TIA
McGuire	Samuel	5x5 Technologies
McKeon	Jeremy	Azimuth Engineering Group
Medoff	Zachary	Kimley-Horn and Associates, Inc.
Mendoza	Luis	Infinigy
Mike Moses	Red Mountain Scientific	Red Mountain Scientific
Modi	Esha	American Tower
Moore	Tom	
NOORZAD	KHAIBAR	Tower Engineering Solutions, LLC
Nathan Kreuser	Dewberry Engineers	Dewberry Engineers, Inc.
Nathan Ross	Valmont	Valmont Structures
Nejman	Phillip	
Novis	Matt	
Oglesby	Michael	Kimley Horn
Opore	Stephen	ATC
Parent	Joel	Shively Laboratories, Inc.
Parreira	Breann	SBA Communications
Peterman	Richard	EFI Global
Ply	Chris	Engineered Tower Solutions
Poot	Aaron	Crown Castle
Pratt	Aaron	Verizon
Prust	Mitchell	Crown Castle
Ramos	Gil	AT&T

Reese	Brian	Reese Tower Services
Removchik	Randy	CrownCastle
Reynolds	Andrew	NB+C
Robinson	John	Hodge Structural Engineers
Romero	Victor	American Tower
Ruedlinger	James	Electronics Research Inc.
Ruh	Justin	Paul J. Ford and Company
S.	Nick	Telamon
Savla	Deepesh	Paul J Ford & Company
Saylor	Jason	Suez Advanced Solutions
Saylor	Jason	
Scott	Leslie	Tank Industry Consultants
Shah	Jainesh	Valmont
Shanbhogue	Santhosha	American Tower Corporation
Shanubhogue	Anantha SHAN	
Shelley	Jordan	Tower Engineering Professionals
Shiqiang (Steve) Zhang	Allpro Consulting Group, Inc	
Silva	Evelyn	ETS
Sith	Brian	POD Group
Smilowitz	Daniel	Crown Castle
Smith	Brendan	American Tower
Smith	William	T-Squared Site Services, LLC
Soukis	Spiro	Crown Castle
Stekr	Scott	PerfectVision
Stevens	Tyler	Crown Castle
Tabb	Braden	Tabb Structural Engineering PLLC
Tan	Aldin	MasTec Network Solutions
Taneja	Pankaj	Bentley Systems, Inc.
Taylor	Thomas	541330
Tesfaye	Helen	
Thiemann	Zach	Valmont
Thorpe	Kyle	Paul J Ford and Company
Toenies	Nathan	Valmont Industries

Torres	Andres	Valmont
Trimble	Joseph	Valmont
Vance	Scott	Vance Engineering PLLC
Wahba	John	Turris
Westerman	Rhett	Deep South communications
Wilson	Blake	FDH Infrastructure Services
Wirgau	Scott	American Tower Corp.
Wood	John	NB+C
Wyant	Kyle	Tower Engineering Solutions, LLC
Yasin	Anwar	SBA Communications
Yeo	Stephen	
Yohannes	Daniel	SBA
You	Hanming	Tower Engineering Solutions, LLC
Yu	Jiantao	American Tower
Zamani	Fathullah	GeoStructural, LLC
Zhang	Chiyu	Allpro Consulting Group
Zubeldia	Elizabeth	SBA
barham	chad	FDH Infrastructure Services
bost	frederic	ETS
chang	dan	Jacobs
coto	victor	SBA
de La Soujeole	Raphael	MAFI
mesfin	brook	Network Building and Consulting, LLC
ojha	jyoti	CommScope
wang	jinshan	Trylon

### 1.3 Meeting Agenda Review and Approval and Previous Meeting Report Review and Approval

- Aaron Poot motioned to approve the meeting agenda, it was seconded by Jyoti Ojha – no objections or discussion
- Pankaj Taneja motioned to approve previous meeting report, it was seconded by Tony Gualtieri – no objections or discussion

### 1.4 TIA Report and General Items

TIA Update given by TIA CEO, Dave Stehlin

#### STANDARDS DEVELOPMENT



- ANSI Accredited
- >3,600 standards and technical documents
- >1,000 volunteers from 20+ countries

#### **TECHNOLOGY ENABLEMENT PROGRAMS**

- Smart Buildings
- Edge Data Centers

#### **GOVERNMENT AFFAIRS**

- Advocate for ICT manufacturers and suppliers (U.S. & International)
- Advance policy positions on wide range of issues
- Impacting ICT industry globally

#### **QuEST FORUM COMMUNITY**

- Supply Chain Security
- TL 9000 Quality Management System
- Sustainability Assessment and Benchmarking

#### **1.5 Chair's Report**

Update given by TR-14 Chair, Bryan Lanier:

John Erichsen was awarded the first Lifetime Achievement Award by TIA

IBC Update:

- 2018 IBC lists ANSI/TIA-222-H
  - Some states using 2018 IBC list Rev. G
    - a) Washington
    - b) Virginia
    - c) Looks to be a mistake that will be corrected in next revision of state code
  - Due date to submit updated references is Dec. 1, preceding year
  - d) i.e., For 2024 IBC, submittal must be Dec. 1, 2023

#### **1.6 Government Liaison**

Update on Department of Labor and OSHA given by Scott Kisting

## **2. New Business**

### **2.1 5053 Update**

***Publication expected by Q2 2022***

### **2.2 322 & A10.48 Update**

***Publication expected by Q4 2022***

### **2.3 222 Current Work**

- Ad Hoc Group 1: Loads
- Ad Hoc Group 2: Structural Steel
- Ad Hoc Group 3: Guy Assemblies and Other Materials
- Ad Hoc Group 4: Foundations
- Ad Hoc Group 5: Grounding
- Ad Hoc Group 6: Climbing Facilities
- Ad Hoc Group 7: Existing Structures
- Ad Hoc Group 8: Mounts
- Ad Hoc Group 9: Small Wind Turbines
- Ad Hoc Group 10: Structural Oscillations
- Ad Hoc Group 11: Baseplates
- Ad Hoc Group 12: Monopole Reinforcement

- Ad Hoc Group 13: Water Tanks
- Ad Hoc Group 14: Roof Top Mounts
- Ad Hoc Group 15: Weld Crack Evaluation
- Ad Hoc Group 16: Drones

***Publication expected by Q3 2023***

**3. Upcoming Meetings**

- March/April 2022
- Fall 2022

**4. Adjournment**

Meeting Adjourned at 4:23 PM ET

- Scott Kisting motioned for the meeting to be adjourned, it was seconded by Ronnie Glover– there were no objections or discussion

**This meeting was conducted in accordance with the TIA Legal Guidelines and the engineering procedures.**

On October 4 - 12<sup>th</sup>, Ad Hoc groups of TR-14 engineering committee will meet per schedule below. Links have been issued to the TR-14. Please contact Chris Ply ([chris.ply@engineeredtowersolutions.com](mailto:chris.ply@engineeredtowersolutions.com)) for any missing invitations.

<b>Date</b>	<b>Time (EDT)</b>	<b>Ad Hoc Group / Leader</b>
Monday, October 4, 2021	11:00 - 12:30 PM	1 - Chris Ply / Aaron Poot
	1:00 - 2:30 PM	2 - Matt Branagan
	3:00 - 4:30 PM	3 - Dennis Abel
Tuesday, October 5, 2021	11:00 - 12:30 PM	4 - Justin Kline
	1:00 - 2:30 PM	5 - Randy Removchik
	3:00 - 4:30 PM	11 - Bryan Lanier
Wednesday, October 6, 2021	11:00 - 12:30 PM	7 - Tyler Stevens / Esha Modi
	1:00 - 2:30 PM	8 - Michael Oglesby
	3:00 - 4:30 PM	9 - Ronnie Glover
Thursday, October 7, 2021	11:00 - 12:30 PM	10 - John Wahba
	1:00 - 2:30 PM	6 - Geoff Bost
	3:00 - 4:30 PM	14 - Jyoti Ojha
Friday, October 8, 2021	11:00 - 12:30 PM	Open
	1:00 - 2:30 PM	15 - Sam McGuire / Robert McCoy
	3:00 - 4:30 PM	322 - James Ruedlinger

<b>Date</b>	<b>Time (EDT)</b>	<b>Ad Hoc Group / Leader (Optional / As Needed)</b>
Monday, October 11, 2021	11:00 - 12:30 PM	1 - Chris Ply
	1:00 - 2:30 PM	2 - Matt Branagan
Tuesday, October 12, 2021	11:00 - 12:30 PM	6 - Geoff Bost
	1:00 - 2:30 PM	7 - Tyler Stevens / Esha Modi
Wednesday, October 13, 2021	11:00 - 12:30 PM	8 - Michael Oglesby