

ATC TOWER INSPECTION FORM

Rev 5.6 (5-2-13)



GENERAL INSTRUCTIONS

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Inspector must be an ATC Climber or an approved ATC Climbing Vendor, and you must follow all OSHA and local safety codes while on ATC towers.
Inspector must contact the local ATC Field Operations Technician (FOT) and NOC before mobilizing to the site.

- A. Explanation of acceptable options when filling out Tower Inspection Form Tab:
Yes - Self Explanatory
No - Self Explanatory
Corrected - Check box if repairs were made to meet the requirements for passing grade. (Take before and after photos)
N/A - Check box if the item does not apply.
- B. When noting STRUCTURAL items on the Inspection Form, please provide exact location with height, leg and which face designation. (i.e. 230' level on leg A). MAKE SURE ALL DISCREPANCIES ARE NOTED IN THE SUMMARY AND COMMENTS SECTIONS.
- C. Members that are bent, damaged, or missing must be reported and sizes and/or part numbers provided.
- D. Note location, diameter, length, and quantity of missing bolts in inspection report as discrepancies.
- E. Note areas of rust as discrepancies only, providing clear photographs and description of issues. Do not repair at time of inspection.
- F. Tower legs are named as follows: The leg closest to magnetic north is designated as Leg A. Going clockwise, the remaining legs are designated as Leg B, Leg C. Tower faces will be designated as follows: Face AB for the face between Leg A and Leg B
- G. Note all discrepancies in the Comments and Summary sections of this report. Identify them on the tower with masking tape and magic marker. Take photo before and after any repair - See Photo Logs.
- H. Fill out all sub forms where applicable: Inspection, Guy Tension, Tower Height Verification/Tape Drop, Twist and Plumb, Twist and Plumb must be done for all Guyed Towers and Self-Supporting Towers.
- I. Wind speed must not exceed 15 MPH while measuring guy cable tensions or Twist/Plumb data points.
- J. **ANY SAFETY ISSUES THAT ARE OF CONCERN MUST BE REPORTED TO ATC TOWER INSPECTIONS DEPT AND ATC FIELD OPERATIONS TECNICIAN (FOT) IMMEDIATELY.**
- K. **IF THE TOWER IS DETERMINED TO BE UNSAFE TO CLIMB, THE VENDOR MUST PROVIDE SUPPORTING WRITTEN AND PICTURE DOCUMENTATION. THIS DOCUMENTATION MUST BE SUBMITTED TO THE ATC TOWER INSPECTIONS DEPT AND ATC FIELD OPERATIONS TECNICIAN (FOT) WITHIN 24 HOURS.**
- L. No information is required on Lighting Systems.
- M. Any items that prevent the completion of a tower inspection must be reported to Tower Inspections before leaving the site. Partial inspections will not be accepted. Do not invoice or submit partial or incomplete inspection reports.
- N. Follow Tower Inspections direction for submitting completed inspections.
- O. If bird nests are found on a tower, **DO NOT CLIMB**. Please contact Tower Inspections Dept & ATC Field Operations Technician (FOT) for further instructions before leaving the tower site.
- P. **ANY ACCIDENTS WHILE ON SITE MUST BE REPORTED TO ATC WITHIN 4 (FOUR) HOURS OF INCIDENT.**
- Q. All Inspections will be sent to an ATC FTP site. For site location and access contact:
American Tower Corporation
Attn: Mari Heisler-Reyes (e-mail: Mari.Heisler-Reyes@americantower.com)
8505 Freeport Parkway
Suite 135
Irving, TX 75063
972-999-8901

ATC TOWER INSPECTION FORM



ANSI-TIA/EIA-222 Compliant

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SECTION A - SITE INFORMATION

ATC Site Number	: 306035	ATC Site Name, State	: Unity Village, MO
Site Address	: 2150 NW Lowenstein DR	Number of Compounds	: 1
City/State	: Lee's Summit MO	Date of Inspection	: 6/4/15
Contractor Name	: Tower Engineering Professionals		
Inspection Completed By	: Sean Arseneault and Kyle A. Petersen		

SECTION B - TOWER INFORMATION

Structure Type	: Self-Supporting	Number of Tower Legs	: 3
Tower Height	: 190.0	Climbing/Safety Device	: Yes
Overall Structure Height	: 190.8	FCC/ASR Number	: 1003933
Tower Manufacturer	: CNR (tower tag not installed)	AM Detuning ?	: No

SECTION C - SITE INFORMATION CATEGORIES

SECTION A - Site Information	SECTION G - Safety Comments
SECTION B - Tower Information	SECTION H - Grounding Comments
SECTION C - Tower Information Summary Comments	SECTION I - Guy Anchors & Wires Comments
SECTION D - Summary of Deficiencies	SECTION J - AM Detuning Comments
SECTION E - Tower Foundation Comments	SECTION K - Compliance
SECTION F - Tower Structure Comments	

SECTION D- SUMMARY OF DEFICIENCIES

Instructions: List Comments in Sections E through J as applicable. Section D Summary will automatically populate.

1. Tower finish is faded with signs of surface corrosion typical on all legs and members throughout tower. Photos: 72-75, 86-101, 105-108, 120, 127, 131, 132
2. Loose bolts present on diagonal member of BC face near B leg at 44-ft. Photos: 104, 154 Corrected: 155, 157
3. Galvanization faded with surface corrosion present on safety climb mount hardware at top of tower. Photos: 136-141
4. Grounding wire cut at A and B legs. Photos: 64-70
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.
- 14.
- 15.

SECTION E - TOWER FOUNDATION

Instructions

Tower base should be visually inspected for spalling and cracking of the concrete. The soil surrounding the tower base foundation should be inspected for evidence of settlement. Any such settlement or movement should be noted.

Base drains (if present) should be clear of any obstructions. Penetrate drain with object to ensure drains functioning.

Base insulators (if present) - The porcelain surface should be wiped clean with a soft cloth to remove any salt deposits or other foreign substance. A check should be made for any evidence of deterioration or cracks in the porcelain surface.

All discrepancies must be marked with masking tape and magic marker.

All discrepancies must be noted and photographed and numbered.

Is tower center pin in place?

Is tower center pin free of corrosion?

Are all base plate bolts, nuts, and washers present?

Is the tower foundation in good condition? (No cracking, spalling, or settling)

Is the concrete tower base free from standing water?

Are base drains clear and free flowing? (Drains required only under tubular legs.)

Is porcelain surface of base insulators in good condition? (No deterioration or cracking)

Is the soil around the foundation in good condition? (No settling or movement)

Yes	No	Corrected	N/A
			X
			X
X			
X			
X			
			X
			X
X			

Place an x in the proper box

If any comments exceed one row please expand the row height so that all of the text is visible. To expand rows automatically, click the Select All button, then click AutoFit Row Height in the Cells/Format box.

Comments:

- 1.
- 2.
- 3.
- 4.

SECTION F - TOWER STRUCTURE

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Instructions

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Corrosion - If corrosion is observed, the source should be determined and noted.

Damaged or faulty members - A visual inspection must be made of the entire tower structure to determine if any of the members have been deformed or damaged.

Any bowed, bent or damaged member/bolt should be noted as to part number, size, location on tower, nature and magnitude of deformation or damage.

Do not remove any tower member for replacement unless authorized by ATC Engineering Dept - Signed/Sealed Construction Drawings are required if a

All discrepancies must be marked with masking tape and magic marker. All discrepancies must be noted and photographed before and after repair.

Are all bolts and nuts tight? Tighten up to 20 loose bracing bolts and document as corrected.

Is the tower free of rust? (If "No", be specific in the comments below.)

Are all structural members straight and not damaged, bent, and/or missing?

Is the tower finish in good condition? (No obvious signs of cracking)

Yes	No	Corrected	N/A
	x		
	x		
x			
	x		

Place an x in the proper box

If any bolts/nuts are missing, or are loose and cannot be tightened, please furnish locations and bolt sizes in the Comments below (diameter and length).

Comments:

1. Tower finish is faded with signs of surface corrosion typical on all legs and members throughout tower. Photos: 72-75, 86-101, 105-108, 120, 127, 131, 132

2. Loose bolts present on diagonal member of BC face near B leg at 44-ft. Photos: 104, 154 Corrected: 155, 157

3.

4.

5.

6.

7.

8.

SECTION G - SAFETY

Instructions

Safety is paramount- Report anything that makes it unsafe to operate or maintain this tower to ATC immediately.

All discrepancies must be marked with masking tape and magic marker. All discrepancies must be noted and photographed before and after repair.

Is there a safety climb system?

Is the climbing path free from obstructions?

Is the safety climb system properly installed and secure? If No, correct and note.

Is the FCC and ATC signage apparent and placed properly.

Yes	No	Corrected	N/A
x			
x			
x			
x			

Place an x in the proper box

Comments:

1. Galvanization faded with surface corrosion present on safety climb mount hardware at top of tower. Photos: 136-141

2.

3.

4.

SECTION H - GROUNDING

Instructions

Connections - The connections above grade should be visually checked for loose fittings, ensure wires are snug in mechanical connections or well bonded with exothermic connections at the base of the tower.

Ground Wires - The ground wires at the base should be cad welded to each leg.

Take a photo of the grounding at the base and at each anchor.

All discrepancies must be marked with masking tape and magic marker. All discrepancies must be noted and photographed before and after repair.

Is the tower base properly grounded?

Are the guy cables and/or guy anchor heads properly grounded?

Are ground wires and connections in satisfactory condition?

Is there a lightning rod or static dissipation array installed on this tower?

Is lightning rod or static dissipation array properly installed, if present?

Is the lightning rod mounted in a location making it the highest point on the tower?

Yes	No	Corrected	N/A
	x		
			x
	x		
	x		
			x
			x

Place an x in the proper box

Comments:

1. Grounding wire cut at A and B legs. Photos: 64-70

2.

3.

4.

5.

6.

7.

8.

9.

10.

***Note - Cable sizes must be measured with Guy Cable Measuring Tool. Photos of size and tension measurements are required. If all cable sizes at one elevation are the same for all legs, photos of size measurements of only one leg are required.**

[illegible][illegible][illegible]

Site # : 306035
Site Name : Unity Village, MO
Contractor Name : Tower Engineering Professionals
Completed By : Sean Arsenault and Kyle A. Petersen
Date : 6/4/15

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3-SIDED TOWER TWIST AND PLUMB

	Face Width (Ft)	Elevation (Ft)
4th Taper Change OR Top of Tower		
3rd Taper Change OR Top of Tower		
2nd Taper Change OR Top of Tower		
1st Taper Change OR Top of Tower	2.75	190.00
Base of tower (Bottom of steel)*	17.00	0.00

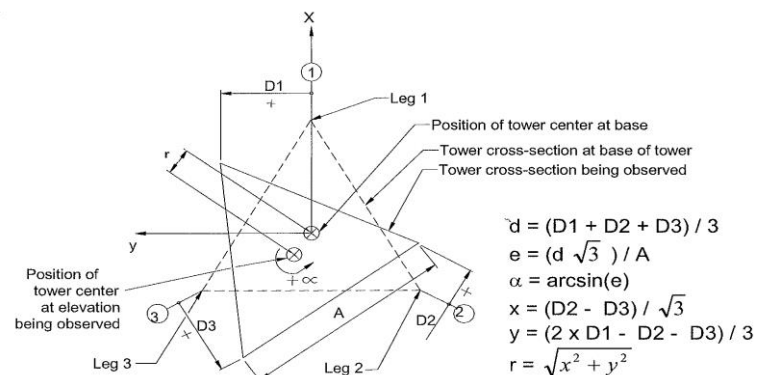
Temp (°F)	73
Wind Speed	6
Direction	SE

**For a GT w/ a tapered base, enter the face width at the top of the taper into Cell G14.*

OBSERVED LEG DISPLACEMENTS						CALCULATED TWIST			CALCULATED OUT-OF-PLUMB		
Data Point	Mast Elev. * See Note (Ft)	A - Face Width (In)	D1 (In)	D2 (In)	D3 (In)	d (In)	e	a (Deg)	x (In)	y (In)	r (In)
1	20.00	186.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	40.00	168.00	0.06	0.00	0.13	0.06	0.00	0.04	-0.08	0.00	0.08
3	60.00	150.00	0.36	0.39	0.20	0.32	0.00	0.21	0.11	0.04	0.12
4	80.00	132.00	1.09	0.53	0.27	0.63	0.01	0.47	0.15	0.46	0.49
5	100.00	114.00	1.33	0.66	0.07	0.69	0.01	0.60	0.34	0.65	0.73
6	120.00	96.00	1.94	1.05	-0.13	0.95	0.02	0.98	0.68	0.98	1.20
7	140.00	78.00	2.48	1.31	-0.07	1.24	0.03	1.58	0.80	1.24	1.47
8	160.00	60.00	2.60	1.84	-0.07	1.46	0.04	2.41	1.10	1.14	1.59
9	180.00	42.00	2.66	2.10	-0.47	1.43	0.06	3.39	1.48	1.23	1.93
10	190.00	33.00	2.84	2.50	-0.47	1.62	0.09	4.89	1.71	1.22	2.10
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											

Tower Plumb and Twist Measurements

The transit is to be set up on each leg azimuth at the base of the tower. The corresponding tower leg at the base of the tower is used to set the vertical baseline.



* Mast Elevation Note

For guyed towers, record data at each guy elevation **and** at all taper change elevations. For self-supporting towers, record data at each 20' section **and** at all taper change elevations.

Site # : 306035
Site Name : Unity Village, MO
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4-SIDED TOWER TWIST AND PLUMB

	Face Width (Ft)	Elevation (Ft)
4th Taper Change OR Top of Tower		
3rd Taper Change OR Top of Tower		
2nd Taper Change OR Top of Tower		
1st Taper Change OR Top of Tower		
Base of tower (Bottom of steel)*		0.00

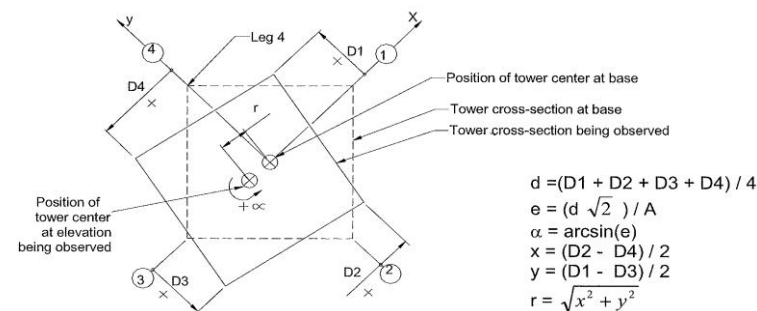
Temp (°F)	
Wind Speed	
Direction	

**For a GT w/ a tapered base, enter the face width at the top of the taper into Cell G14.*

OBSERVED LEG DISPLACEMENTS							CALCULATED TWIST			CALCULATED OUT-OF-PLUMB		
Data Point	Mast Elev. * See Note (Ft)	A - Face Width (In)	D1 (In)	D2 (In)	D3 (In)	D4 (In)	d (In)	e	a (Deg)	x (In)	y (In)	r (In)
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												

Tower Plumb and Twist Measurements

The transit is to be set up on each leg azimuth at the base of the tower. The corresponding tower leg at the base of the tower is used to set the vertical baseline.



* Mast Elevation Note

For guyed towers, record data at each guy elevation **and** at all taper change elevations. For self-supporting towers, record data at each 20' section **and** at all taper change elevations.

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Tower Height Verification Form

TOTAL TOWER HEIGHT = GROUND TO HIGHEST APPURTENANCE (F+S+A) = 190.8333 (feet)

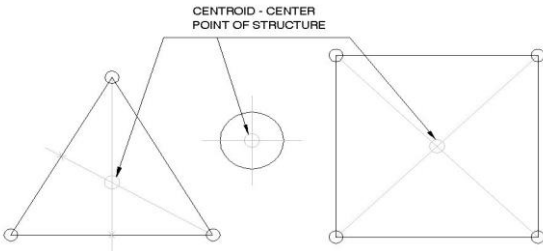
HEIGHT of FOUNDATION (F) = 0.8333 (feet)
 (Measure from ground at center of tower to top of baseplate)

HEIGHT of STRUCTURE (S) = 190 (feet)
 (Measure from top of baseplate to top of structure)

HEIGHT of APPURTENANCE (A) = 0 (feet)

HEIGHT with APPURTENANCE (F+S+A) = 190.8333 (feet)

Distance From Centroid At Base Of Structure To Laser Tripod = (feet)



METHOD OF MEASUREMENT

- ☒ Tape Drop
☐ Range Finder

(Accuracy to be within +/- 1' for structures Up to 100 feet. The accuracy is no better than +/- 1' for structures greater than 100 feet.) This method is generally used to validate existing distances only.

Range Finder Make and Model # _____

Calibration Date _____

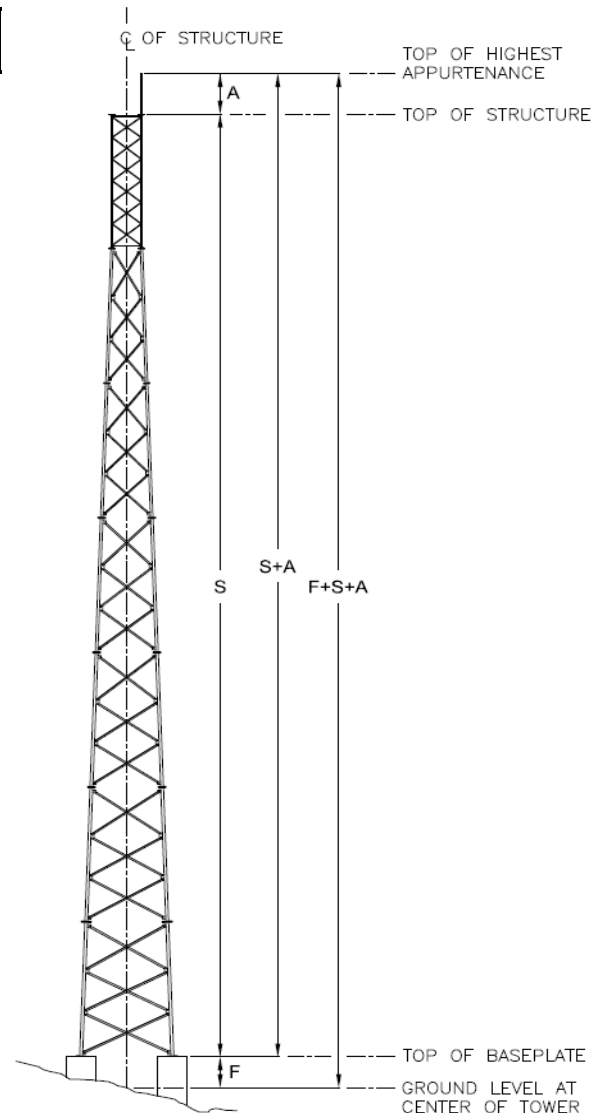
Training Date _____

MEASUREMENT CERTIFICATION:

Company: Tower Engineering Professionals

Print Name: Sean Arsenault

Date: 6/2/2015



Site # : 306035
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AMERICAN TOWER
CORPORATION

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COMPOUND PHOTOGRAPHS

This list represents the minimum number of photos required. The size of digital photos should be 1024 x 768.

DESCRIPTION OF PHOTO	PHOTO #'S
Photos from Ground	
Gate and Sinage	
Front Gate	40
Close-up view of front gate and signage	26
Total Tower	
Stand-off view of total tower	1
Stand-off view of total tower, opposite previous side	18
Partial Tower	
Incremental stand-off view of tower, bottom 1/3	2
Incremental stand-off view of tower, middle 1/3	3
Incremental stand-off view of tower, top 1/3	4,5
Antenna Arrays (Rad Centers)	
Bottom antenna array, 1st	6
Next antenna array, 2nd (if applicable)	7
Next antenna array, 3rd (if applicable)	
Next antenna array, 4th (if applicable)	
Torque Arms (If applicable)	
Bottom torque arm, 1st (if applicable)	
Next torque arm, 2nd (if applicable)	
Next torque arm, 3rd (if applicable)	
Next torque arm, 4th (if applicable)	
Outside Compound	
Outside view of compound, gate view	27
View of all signage	40
Inside Compound	
Inside view of compound, view just inside gate	29
Inside view of compound, view just inside back fence	32
Tower Base	
Close-up view of tower base, w/ signage	43
Close-up view of tower manufacturer's ID Tag (If avail.)	
Close-up view of tower base, w/ concrete & grounding	59-62
Close-up view of tower base, opposite previous view	64, 69, 71
Close-up view inside tower base, w/ center pin	
Photos from Tower	
Top Appurtenance	
Lightning rod (if applicable)	
Compound	
Compound view from top of tower	134
Compound view from top of tower, opposite prev. side	135

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GUY ANCHOR PHOTOGRAPHS

This list represents the minimum number of photos required. The size of digital photos should be 1024 x 768.

DESCRIPTION OF PHOTO	PHOTO #S
Inner Guy Anchor (A Leg)	
Guy anchor, compound view	
Anchor Head (w/ turnbuckles, safety loop, and full view of preforms)	
Anchor shaft, close up view	
Guy Wire Grounding	
Guy Anchor Grounding	
Inner Guy Anchor (B Leg)	
Guy anchor, compound view	
Anchor Head (w/ turnbuckles, safety loop, and full view of preforms)	
Anchor shaft, close up view	
Guy Wire Grounding	
Guy Anchor Grounding	
Inner Guy Anchor (C Leg)	
Guy anchor, compound view	
Anchor Head (w/ turnbuckles, safety loop, and full view of preforms)	
Anchor shaft, close up view	
Guy Wire Grounding	
Guy Anchor Grounding	
Inner Guy Anchor (D Leg)	
Guy anchor, compound view	
Anchor Head (w/ turnbuckles, safety loop, and full view of preforms)	
Anchor shaft, close up view	
Guy Wire Grounding	
Guy Anchor Grounding	
Middle Guy Anchor (A Leg)	
Guy anchor, compound view	
Anchor Head (w/ turnbuckles, safety loop, and full view of preforms)	
Anchor shaft, close up view	
Guy Wire Grounding	
Guy Anchor Grounding	
Middle Guy Anchor (B Leg)	
Guy anchor, compound view	
Anchor Head (w/ turnbuckles, safety loop, and full view of preforms)	
Anchor shaft, close up view	
Guy Wire Grounding	
Guy Anchor Grounding	
Middle Guy Anchor (C Leg)	
Guy anchor, compound view	
Anchor Head (w/ turnbuckles, safety loop, and full view of preforms)	
Anchor shaft, close up view	
Guy Wire Grounding	
Guy Anchor Grounding	
Middle Guy Anchor (D Leg)	
Guy anchor, compound view	
Anchor Head (w/ turnbuckles, safety loop, and full view of preforms)	
Anchor shaft, close up view	
Guy Wire Grounding	
Guy Anchor Grounding	
Outer Guy Anchor (A Leg)	
Guy anchor, compound view	
Anchor Head (w/ turnbuckles, safety loop, and full view of preforms)	
Anchor shaft, close up view	
Guy Wire Grounding	
Guy Anchor Grounding	
Outer Guy Anchor (B Leg)	
Guy anchor, compound view	
Anchor Head (w/ turnbuckles, safety loop, and full view of preforms)	
Anchor shaft, close up view	
Guy Wire Grounding	
Guy Anchor Grounding	
Outer Guy Anchor (C Leg)	
Guy anchor, compound view	
Anchor Head (w/ turnbuckles, safety loop, and full view of preforms)	
Anchor shaft, close up view	
Guy Wire Grounding	
Guy Anchor Grounding	
Outer Guy Anchor (D Leg)	
Guy anchor, compound view	
Anchor Head (w/ turnbuckles, safety loop, and full view of preforms)	
Anchor shaft, close up view	
Guy Wire Grounding	
Guy Anchor Grounding	

