

PICTURES OF DAS AND SMALL CELL DEPLOYMENTS

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DAS and Small Cell Deployments:



Figure 1. AT&T small cell deployment on a utility pole.¹

¹ Comments of PCIA - Attachment, WT Docket No. 15-180, at 21 (filed September 28, 2015). UMTS Radio and antenna enclosure volume is approximately 0.15 cubic feet, and the power cabinet volume is approximately 2.12 cubic feet, for a total associated equipment volume of 2.27 cubic feet.



Figure 2. Crown Castle small facility deployment on a utility pole in Princeton, NJ.²

² Comments of PCIA - Attachment, WT Docket No. 15-180, at 22 (filed September 28, 2015). Antenna size is 24”H x 16”D, which is approximately 2.8 cubic feet in volume, and the associated equipment cabinet size is 47.3”H x 21.5”W x 13.7”D, which is approximately 8.1 cubic feet in volume.



Figure 3. Crown Castle pole-based small facility deployment in Broward County, Florida.³

³ Comments of Crown Castle - Attachment, WT Docket No. 13-238, at 7 (filed September 10, 2014). Antenna volume is 2.8 cubic feet, and the volume of the associated equipment shroud is 16.5 cubic feet.



Figure 4. Crown Castle ground-based small facility deployment in Broward County, Florida.⁴

⁴ Comments of Crown Castle - Attachment, WT Docket No. 13-238, at 5 (filed September 10, 2014). Antenna volume is 2.8 cubic feet, and the volume of the associated equipment shroud is 18.2 cubic feet.

SECURITY CABINET ENCLOSURE

72" x 24" x 21" = 21 cuft

Includes RRHs, Power Supply, Batteries

SECURITY CABINET ENCLOSURE

48" x 48" x 21" = 28 cuft

Includes RRHs, Power Supply, Batteries

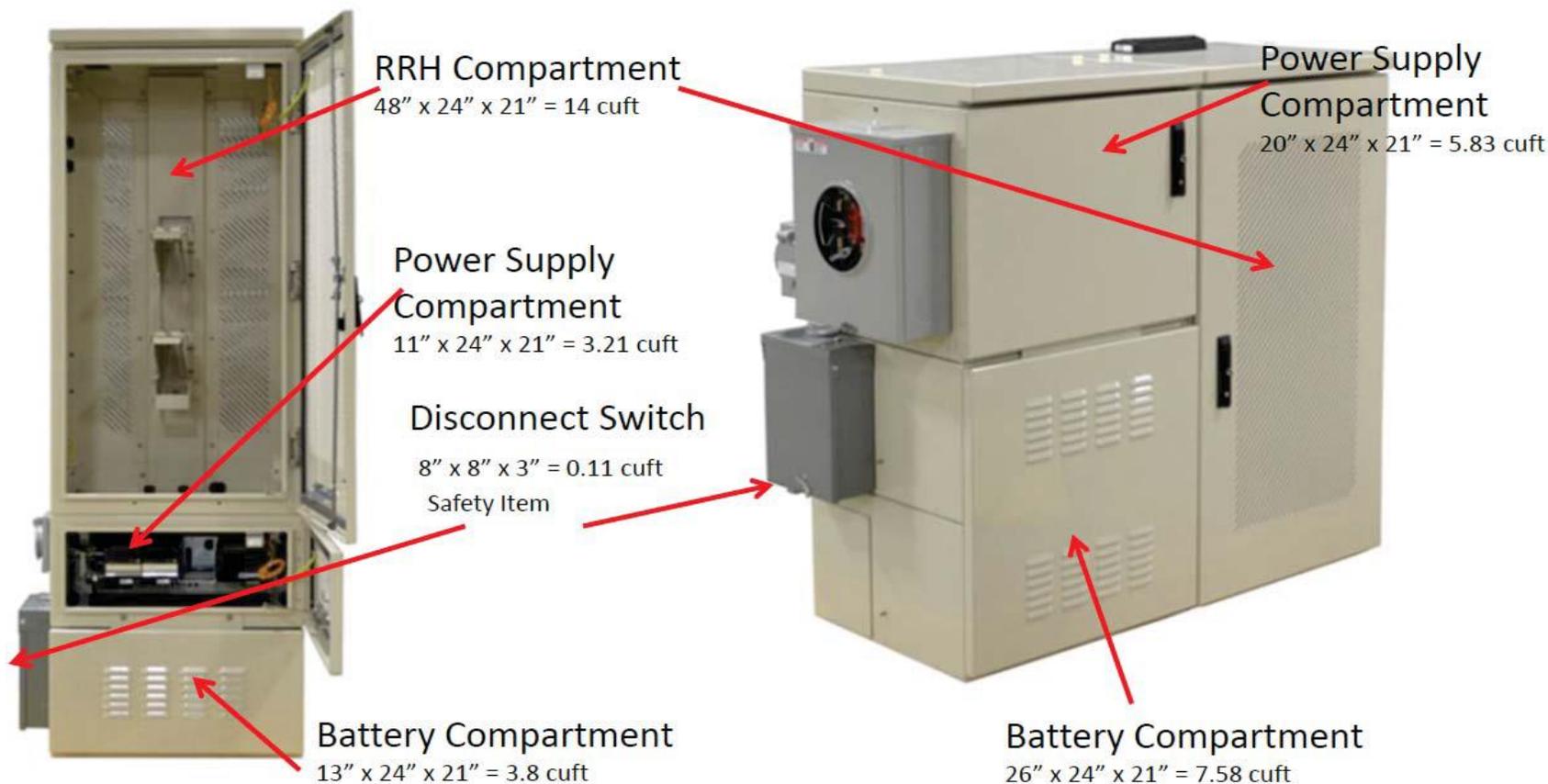


Figure 5. Verizon small facility associated equipment cabinets.⁵

⁵ Comments of PCIA, WT Docket No. 15-180, at 3 (filed December 18, 2015).



Figure 6. Rooftop platform-mounted Verizon small cell deployment.⁶

⁶ PCIA Letter to WTB, FCC, WT Docket No. 15-180, at 24 (filed December 18, 2015). Total volume of the associated equipment is approximately 20.53 cubic feet.

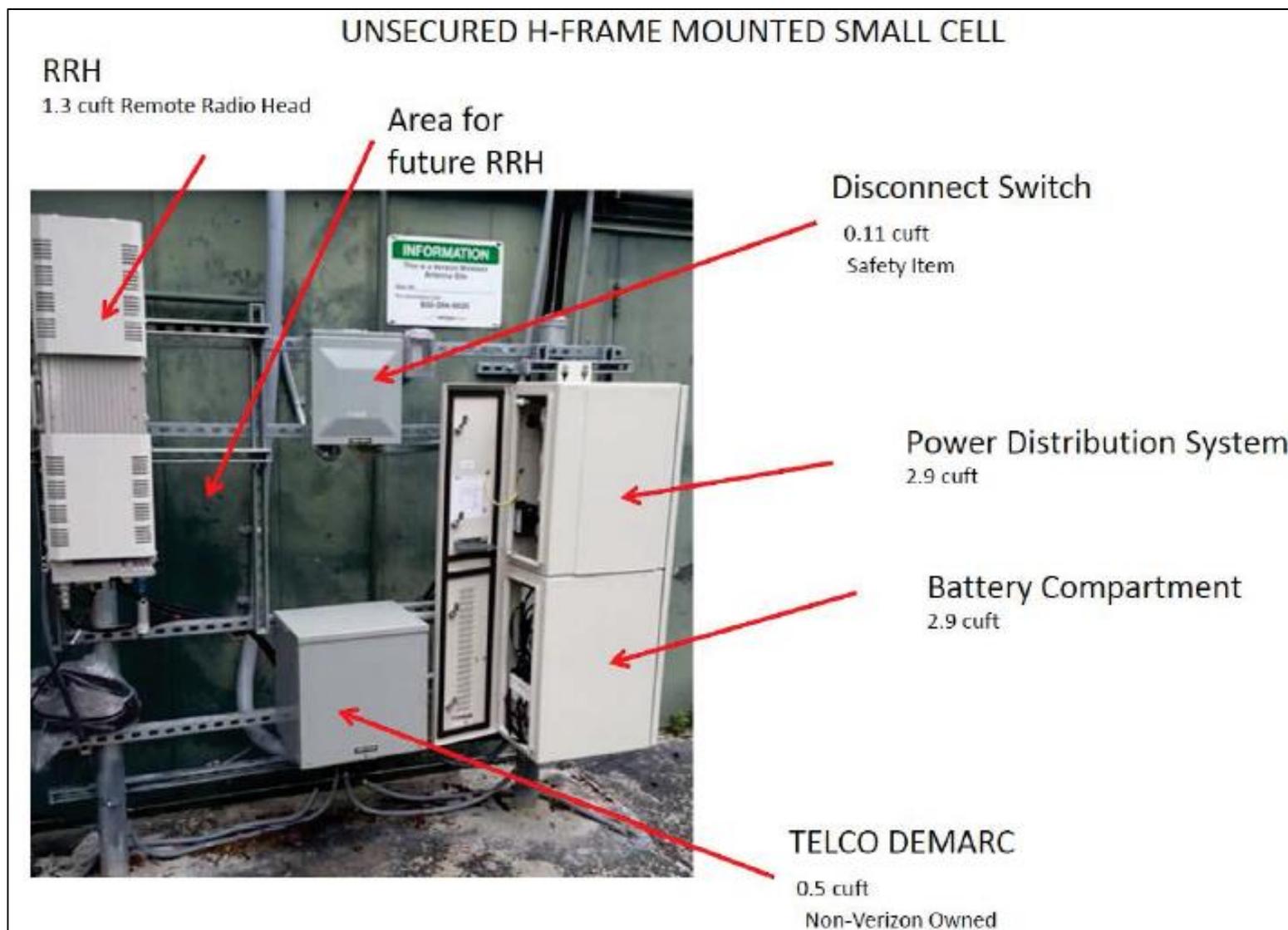


Figure 7. Verizon small cell associated equipment cabinets installed on rooftop or building side.⁷

⁷ PCIA Letter to WTB, FCC, WT Docket No. 15-180, at 4 (filed December 18, 2015). Total associated equipment volume is 9.01 cubic feet.



Figure 8. Wall-mounted Verizon small facility deployment.⁸

⁸ PCIA Letter to WTB, FCC, WT Docket No. 15-180, at 23 (filed December 18, 2015).



Figure 9. Wall-mounted Verizon small facility deployment.⁹

⁹ PCIA Letter to WTB, FCC, WT Docket No. 15-180, at 23 (filed December 18, 2015).



Figure 10. Sprint small cell deployments in Detroit¹⁰

¹⁰ Comments of PCIA - Attachment, WT Docket No. 15-180, at 20 (filed September 28, 2015).



Figure 11. Typical Crown Castle small facility deployments on utility poles¹¹

¹¹ Comments of PCIA - Attachment, WT Docket No. 15-180, at 23 (filed September 28, 2015).



Figure 12. Crown Castle multi-carrier pole-mounted small facility deployment¹²

¹² Comments of PCIA - Attachment, WT Docket No. 15-180, at 22 (filed September 28, 2015).

Deployments in Historic District or on Historic Properties

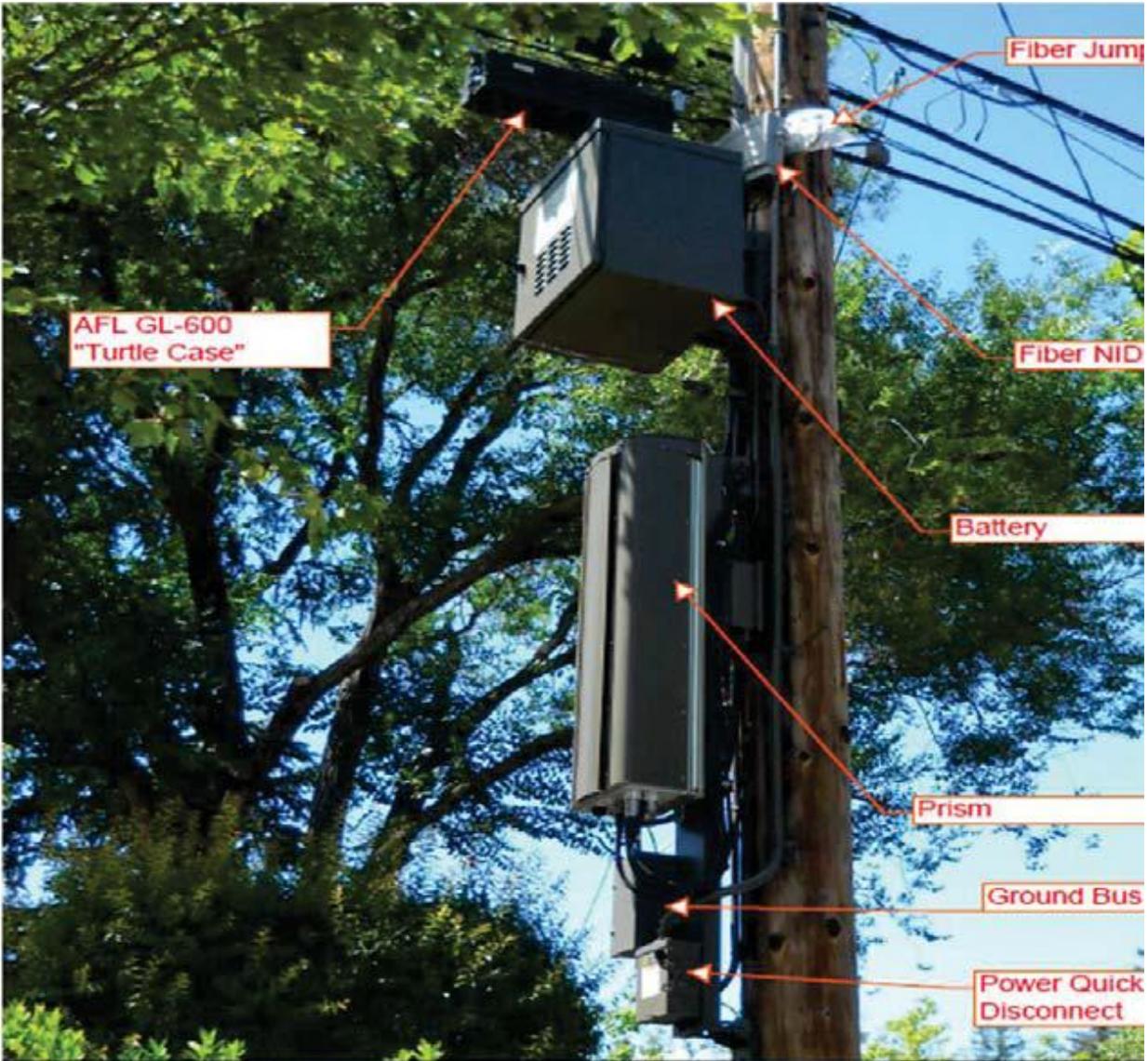


Figure 13. AT&T outdoor DAS deployment in Palo Alto, California.¹³

¹³ Comments of PCIA - Attachment, WT Docket No. 15-180 at 7 (filed September 28, 2015). Outdoor DAS node deployment along Waverly Street, Professorville, Palo Alto, CA (Historic District). Antenna (not shown) volume is approximately 2.8 cubic feet, and total associated equipment volume is approximately 11.36 cubic feet, which includes Battery Cabinet of approximately 6.2 cubic feet in volume, Radio Amplifier (Prism) of approximately 3.6 cubic feet in volume, Power Switch (Power Quick Disconnect) of approximately 0.16 cubic feet in volume, and Fiber Demarc (Fiber NID) box of approximately 1.4 cubic feet in volume.



Figure 14. Crown Castle small facility deployment in a Historic District in Franklin Village, Michigan.¹⁴

¹⁴ Comments of PCIA - Attachment, WT Docket No. 15-180, at 30 (filed September 28, 2015). Antenna volume is approximately 2.86 cubic feet; associated equipment volume is unknown.



Figure 15. Crown Castle small facility deployment at the Williamsburg Inn in Colonial Williamsburg.¹⁵

¹⁵ Comments of Crown Castle - Attachment, WT Docket No. 13-238, at 11 (filed September 10, 2014).



Figure 16. Crown Castle small facility deployed in historic district on Benjamin Parkway, Philadelphia, PA¹⁶

¹⁶ Comments of Crown Castle, WT Docket No. 15-180, at 11 (filed September 28, 2015).



Figure 17. Crown Castle small facility deployed in historic French Quarter in New Orleans, LA¹⁷

¹⁷ Comments of Crown Castle, WT Docket No. 15-180, at 12 (filed September 28, 2015).



Figure 18. Crown Castle small facility deployed in historic Pittsburgh, PA¹⁸

¹⁸ Comments of Crown Castle, WT Docket No. 15-180, at 15 (filed September 28, 2015).



Figure 19. Crown Castle small facility deployed on Central Park West, just outside of the historic Central Park in New York City, NY¹⁹

¹⁹ Comments of Crown Castle, WT Docket No. 15-180, at 14 (filed September 28, 2015).



Figure 20. Crown Castle light pole-mounted small facility deployment in historic Central Park, New York.²⁰

²⁰ Comments of PCIA - Attachment, WT Docket No. 15-180, at 25 (filed September 28, 2015).

Stealthed Deployments – Dallas Arboretum and Rose Bowl



Figure 21. AT&T stealthed small facility deployment at the Dallas Arboretum.²¹

²¹ AT&T Letter to Marlene H. Dortch, Secretary, FCC, WT Docket No. 15-180, at 3 (filed January 13, 2016).



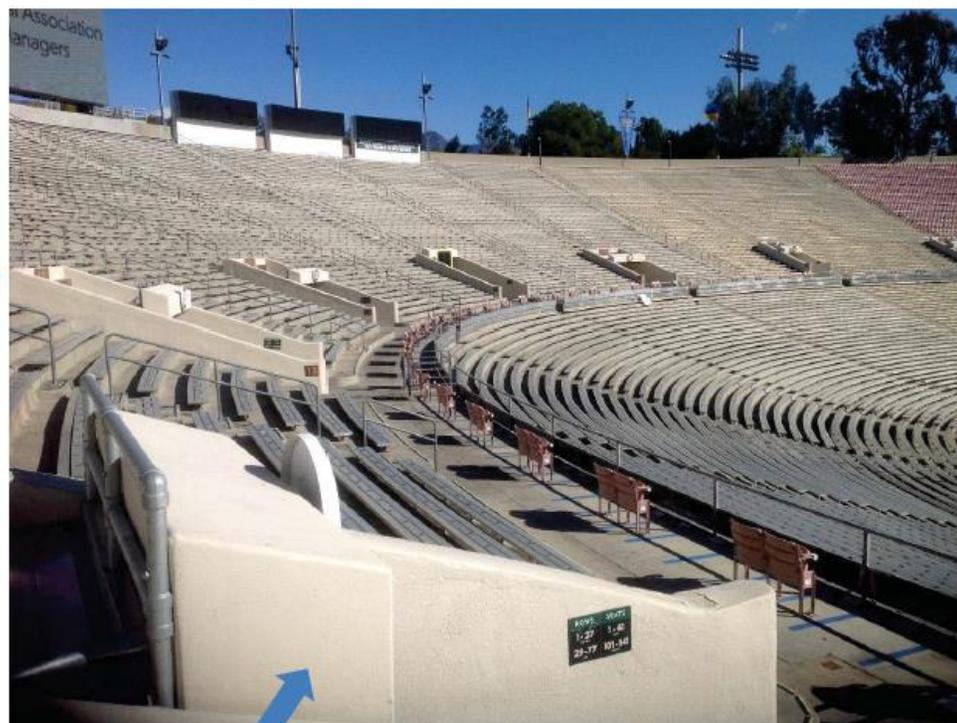
Figure 22. AT&T stealthed small facility deployment at Dallas Arboretum.²²

²² AT&T Letter to Marlene H. Dortch, Secretary, FCC, WT Docket No. 15-180, at 3 (filed January 13, 2016).



Figure 23. AT&T stealthed small facility deployment at Dallas Arboretum.²³

²³ AT&T Letter to Marlene H. Dortch, Secretary, FCC, WT Docket No. 15-180, at 3 (filed January 13, 2016).



Tunnel Elevation

Antennas inside faux wall @ each tunnel

Figure 24. AT&T stealthed small facility deployment at Rose Bowl.²⁴

²⁴ AT&T Letter to Marlene H. Dortch, Secretary, FCC, WT Docket No. 15-180, at 5 (filed January 13, 2016).