ERICSSON

VTS
VIRTUAL TECHNOLOGY SIMPLIFIED

Tower Shot Sheet

Name: Date: Site ID:

Capture Item	Not Captured	Captured	Folder	Guidance	Standard
Administrative					
Shot Sheet			Overall	Always Required	Shot sheet must be filled out in its entirety and submitted with package in overall folder
Ground					
Access Road			Access Road	Start the camera within the last 1/4 mile of the access road and continue all the way to the gate.. DO NOT hold capture device in hand while operating a moving vehicle.	Camera mounted center as high on the windshield as possible to obtain 75% composition of the road. 1 second auto snap. Photo count will vary with length of road.. JPGs only, no HEIC
Gate/Door Sign			Overall	This should not be a copy of your final access road image. Please exit vehicle and provide a clear photo of the gate sign or door and any locks showing correct combos	If multiple signs appear on door provide as many photos as necessary to clearly show all.
Tower Overall			Overall	Your overall photo should show the tower or building in its entirety or as much will fit in comp from point of view	Photo with 80% composition of building or tower from street view
Bottom Anchor			Overall	Typically on ladder or climbing peg side of tower. Locate bottom safety anchor and provide single photo	Please provide only one bottom anchor photo. If light source is behind subject ensure visibility
Tower or Array signage			Overall	Typically located on barriers surrounding arrays on roof-tops, or on the base of the tower near bottom anchor.	Single photo of any signage warning of Radio Frequency or dangers of climbing.
Locks & Correct Combos			Overall	Provide a single photo of all lock types and the correct combos or keys. Please do not include gate combos/locks in access road series Gates/Cabinets/Shelters	Should not be included in access road series. Single photo of each lock showing correct combos or keys required to open.
Cabinets/Com-pound Secured			Overall	As work is completed, please photograph the cabinets and compounds closed and secured as they were at the begin-ning of survey.	Single photo showing cabinets closed and se-cured. Single photo of the gate closed and locked as we leave.
Guyed Wire Anchors			Civil	If tower is supported by guyed wires please provide detailed photos of the anchors and any concrete pads that they may be mounted on.	Multiple photos showing different angles of each guyed wire anchor. Pilot is also expected to use lidar scanner to con-nect anchor points to the usual compound scan.
Aerial					
Cable Run			Cable Run	Avoid capturing while facing towards the sun. If looking into sun, use slight downlook or offset to reduce glare. Start this profile where the coax connects or enters the tower and finish above the tower.	Gimbal 0-10° Pitch Down. Must be carrier's coax cable side.
Top Down North			Overall	North Facing approximately 50ft above tower, airspace permitting	Please provide only one top down photo - GPS information verifies tower location
Top Anchor			Overall	Typically on ladder or climbing peg side of tower. Locate top safety anchor and provide single photo	Please provide only one top anchor photo. If light source is behind subject ensure visibility
Tower Site Overview			TSO	80% composition with entire tower in view. Center orbit on tower, not compound. If the compound is extremely large or uniquely shaped, it is permissible to lose view of edges as you complete a 360°+ orbit maintaining tower composition.	150-200 Photos *hard requirement*; Gimbal 45° downward pitch.
Down Orbit			Downlook	Set POI to tower Center, Identify Customer RAD, Set Camera Angle and Composition, Adjust Exposure, Focus, Start POI, 365°-385° Orbit - 60-90 photos required. Please note that for down and uplook orbits, there is a range on camera angle. This allows for adjustment in drone altitude to see the tops of the antennas. It is important to keep whole RAD in view in all orbits, but the downlook should show the top of the antennas and Uplook should show bottoms	60-90 Photos & 80% Composition; Gimbal 45° downward pitch.
Center Orbit			Center		60-90 Photos & 80% Composition; Gimbal 0° Level.
Up Orbit			Uplook		60-90 Photos & 80% Composition; Gimbal 35° upward pitch. If gimbal does not allow for 35° upward pitch please use max angle capable.
Orbitals			Orbitals	Maintain same POI as set above and fly multiple circular patterns starting at the top or bottom of the tower. Each complete 360° orbit should contain 0-36 photos. Be sure to cover the entire tower from top > bottom or bot-tom >top with 50-60% overlap with each new orbit.	Gimbal 20-30° downward pitch - Maintain 60-80% composition providing 36 photos per revolution and 60% overlap 50-60% overlap with each new orbit.
Verticals			Verticals	Please only provide multiple verticals when the Orbitals pat-tern is not possible due to obstructions like trees or guyed wires. Verticals should mimic a cable run with a 30° downward	Gimbal 20°-30° downward pitch - Maintain 60-80% composi-tion and provide multiple verticals around the tower provid-ing full coverage. Photo counts will vary- provide 60% overlap photo to photo Please provide 9-12 vertical runs minimum.
Handheld Capture (Only when Tower is within restricted airspace)					
Handheld Cable Run			Cable Run	With DSLR - Step back as space permits and provide a ca-ble run from where Cables connect to or enter the tower to the tower's top	Each tower will require a different photo count, be sure the tower is in focus and in 80% composition
Up Orbit			Uplook	With DSLR - Step back as space permits and walk around the tower at a consistent distance, providing a series that shows each Sector of the customer's array	25-50 photos - ensure customer's array is in focus and in 80% composition

Notes: