

87 Willian Way
Letchworth Garden City
SG6 2HY

North Herts Council
Planning Department

3rd August 2026

PLANNING APPLICATION FOR DOMESTIC AMATEUR RADIO MAST WITH ANTENNAS

Site Address: 87 Willian Way, Letchworth Garden City, Hertfordshire, SG6 2HY

Proposal: Erection of a domestic tilt-over amateur radio mast with two antennas

Dear Planning Team,

Please accept this letter and supporting statement as my formal application for planning permission to install a domestic, non-commercial amateur radio mast and two antennas within the private rear garden of 87 Willian Way, Letchworth Garden City.

1. SUMMARY OF PROPOSED APPLICATION

This application seeks planning permission for the installation of a domestic, non-commercial amateur radio mast with two small directional antennas for VHF and UHF amateur radio hobby use within the rear garden of 87 Willian Way, Letchworth Garden City, SG6 2HY.

- **Licensing & Technical Qualification:** I hold a valid Full UK Amateur Radio Licence issued by Ofcom and operate for personal, educational, and hobby communication and experimentation. Holding a Full Licence requires passing rigorous technical examinations administered under Office of Communications (Ofcom) regulations. All radio amateurs in the UK are strictly regulated by Ofcom under the Wireless Telegraphy Acts and international conventions to ensure operators possess the technical skill to operate equipment without causing electromagnetic interference. Compliance with Ofcom Licence General Condition 9 (EMF Safety) is strictly maintained.

- **Equipment Choice:** The chosen equipment - a Tennamast 10.7m domestic tilt-over mast has been specifically selected to minimise visual impact while providing the necessary height for effective VHF & UHF radio frequency propagation.

- **Letchworth Garden City Heritage Foundation Approval:** The position, scale, and technical details of the proposed installation have already been formally reviewed and approved by the Letchworth Garden City Heritage Foundation (LGCHF) under the local Scheme of Management (**Approval Reference: WW/87/01 HA-001248**, dated 23/07/2026).

2. EQUIPMENT & SITE DETAILS

Mast Specification: Tennamast 10.7m Domestic sectional, freestanding tilt-over mast fitted with a top rotator cage.

- Lower Base Section: Slender 90mm × 90mm (~3.5" × 3.5") square steel box section, 5.2 metres long.
- Inner Winch-Up Section: 76.1mm (~3.0") outside diameter round steel section.
- Nested Height: 5.95 metres (excluding stub pole and antennas).
- Extended Mast Height: 10.3 metres (excluding stub pole and antennas).

- Maximum Tip Height: 13.8 metres (measured to the highest tip of the longest antenna element).
- Friction hand winch mounted near base to raise and tilt mast.
- Finish: Weathered galvanised steel with a non-reflective dark grey patina.

Rotator: Yaesu G-1000DXC antenna rotator mounted securely within the Tennamast rotator cage.

Stub Pole: 2.0 metre, 50mm diameter fibreglass stub pole connecting the rotator to the antenna spacing pole.

Antenna Spacing Pole: 1.0 metre, 50mm diameter black aluminium tube.

Antennas:

- Sirio WY400 10N: UHF Yagi directional antenna (2.0m boom length; element lengths up to 0.37m; appearance similar to a standard domestic TV aerial).
- Create CLP-5130-1: VHF/UHF Log Periodic directional antenna (2.0m boom length; longest element 3.0m).

Siting & Setback Distances:

- Located within the private rear garden of 87 Willian Way, Letchworth.
- Distance to rear site boundary: **8.2 metres**
- Distance to rear elevation of main dwellinghouse: **19.3 metres**
- Distance to side boundary (No. 89): **2.5 metres**
- Distance to nearest highway edge: **~62 metres**

Foundation: Single 1.0m³ subterranean concrete foundation pad fitted with a central socket into which the mast base slots.

3. PLANNING, HERITAGE & VISUAL AMENITY CONSIDERATIONS

• **Letchworth Garden City Heritage Foundation Consent:** The application site falls within the Letchworth Garden City Scheme of Management Modern Area. Prior to submitting this planning application, formal consent was sought from the Letchworth Garden City Heritage Foundation. Written approval was granted by LGCHF for the mast with these antennas at this exact position (**Ref: WW/87/01 HA-001248**), confirming that the structure respects the unique character, architectural harmony, and environmental standards of Letchworth Garden City.

• **Backdrop Screening:** The proposed mast and antennas sit directly in front of a substantial natural backdrop of mature, ~20-metre-high trees (illustrated on drawing ANT1-8706 Proposed Rear Garden Elevation View From House). With the highest antenna element tip reaching a maximum operational height of 13.8 metres, the surrounding 20-metre tree canopy significantly exceeds the overall top tip height of the structure. Consequently, the structure will be naturally screened and visually absorbed against the foliage when viewed from neighbouring properties.

• **Public Street Scene Screening:** The mast is situated approximately 62 metres back from the nearest edge of the highway. Public views from the road are fully obscured by a wide greensward and its established canopy of mature oak trees, ensuring zero visual impact on the public realm or local street scene.

• **Matte Finish & Slender Profile:** The mast features an exceptionally slim footprint (90mm × 90mm at the base, narrowing to a 76.1mm round tube). The galvanised steel possesses a weathered, dark

grey patina rather than a reflective metallic finish, allowing the frame to blend naturally into the shadow line of the tree backdrop.

- **Antenna Permeability:** Both directional antennas feature lightweight aluminium construction with open-frame designs. The Sirio WY400 10N has a compact appearance similar to a TV antenna, while the Create CLP-5130-1 features slender elements, the longest of which has a span of 3.0 metres. This open-frame design provides high visual permeability, allowing light and views of the surrounding tree canopy to pass through freely without creating a solid or visually dominant mass against the sky.

- **Variable Operational Heights:**

- Lowered / Nested Height: 5.95 metres (9.45 metres tip of longest antenna element).
- Extended Operational Height: 10.3 metres mast height (13.8 metres – tip of longest antenna element).

- **Mechanical Flexibility & Safety:** The tilt-over and retractable design, operated by a manual friction winch near the base, provides vital operational flexibility. The mast can be lowered to its 5.95-metre nested height or tilted over to sit 1.44 metres above ground level during severe weather conditions, high winds, or for ground-level maintenance and adjustments without requiring climbing or scaffolding.

- **Complete Reversibility:** The structure is fully freestanding and reversible. The proposed mast sits securely inside a socket within the central concrete pad. The entire mast, rotator, and antenna assembly can be unbolted, lifted out, and removed from the site at any time, leaving no structure above ground level and restoring the garden space to its original state.

- **Arboricultural Compliance (BS 5837:2012):** The applicant has evaluated the proximity of the proposed foundation pad relative to the adjacent ~20-metre-high trees in accordance with BS 5837:2012 (*Trees in relation to design, demolition and construction*). Calculations for the Root Protection Areas (RPA) of adjacent trees have been mapped directly onto Proposed Layout Plan with Tree Root Protection Area, Drawing No. ANT1-8707. The 1.0m³ concrete foundation block sits entirely outside the RPAs of all surrounding mature trees, causing zero disturbance or damage to tree roots or long-term arboricultural health.

4. IMPACT ON NEIGHBOURING AMENITY

- **Light and Overshadowing:** Due to the slim frame of the mast (90mm × 90mm maximum profile) and its generous setbacks (19.3m from the main dwelling, 8.2m from the rear boundary, and 2.5m from the boundary with No. 89), the installation will cause zero loss of daylight, overshadowing, or overbearing impact on adjacent properties.

- **Noise & Operation:** Operation is purely hobby-based, non-commercial, and sporadic. The Yaesu G-1000DXC rotator operates via a low-voltage DC electric motor designed for quiet, intermittent turning lasting only a few seconds at a time. It generates no ambient noise nuisance to neighbouring properties.

- **Safety & Maintenance:** The tilt-over functionality ensures that all maintenance, adjustment, and antenna inspections can be conducted safely within the boundaries of the property at ground level.

5. HEALTH, SAFETY & OFCOM COMPLIANCE

- **ICNIRP & Ofcom EMF Compliance:** In accordance with Ofcom Licence General Condition 9, the applicant has completed an EMF Compliance Assessment for the proposed antenna array using Ofcom's official EMF calculator tool. The system fully complies with Ofcom amateur licence

conditions and public exposure guidelines established by the International Commission on Non-Ionising Radiation Protection (ICNIRP) at all property boundary points.

- **Structural Foundation:** The mast base will be securely anchored into a central socket within a 1.0m³ subterranean concrete pad engineered to meet the manufacturer's load specifications for the Tennamast 10.7m model.

6. CONCLUSION

The proposed installation is a modest, domestic amateur radio setup that aligns fully with local planning policies regarding residential amenity, heritage protection, and visual impact:

- It has been reviewed and formally approved by the Letchworth Garden City Heritage Foundation (Ref: WW/87/01 HA-001248).
- It sits well within the private rear garden plot (8.2m from the rear boundary, 19.3m from the house, 2.5m from the boundary with No. 89, and ~62m from the highway).
- It features a remarkably slender profile (90mm × 90mm base) and a weathered dark grey patina that blends seamlessly into the surrounding 20m mature tree canopy and greensward oak screening.
- The 1.0m³ subterranean foundation pad sits completely outside the BS 5837:2012 Root Protection Areas of surrounding trees mapped on Drawing No. ANT1-8707.
- The freestanding design offers a mast nested height of 5.95m and full tilt-over capability for storm safety and ground-level maintenance, and can be removed completely without leaving any above-ground structure.

ENCLOSED APPLICATION DOCUMENTS & DRAWINGS

- Location plan produced by planning portal.
- ANT1-8701 Proposed Location Plan 1:1250 @ A3
- ANT1-8702 Proposed Block Plan 1:500 @ A3
- ANT1-8703 Proposed Front Elevation 1:100 @ A2
- ANT1-8704 Proposed Side (South) Elevation Nested Height / Max Height 1:100 @ A2
- ANT1-8705 Proposed Side (South) Elevation Mast Tilted 1:100 @ A2
- ANT1-8706 Proposed Rear Garden Elevation View From House 1:100 @ A2
- ANT1-8707 Proposed Layout Plan Tree Root Protection Area with 1:100 @ A1

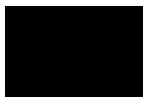
Manufacturers' Data Sheets:

- Tennamast 10.7m domestic mast
- Tennamast Rotator Cage
- Yaesu G-1000DXC Rotator
- Sirio WY400 10N
- Create CLP-5130-1

LGCHF Approval Certificate: Reference WW/87/01 HA-001248 (Dated 23/07/2026)

Context photos: Views from rear of house and street scene from Willian Way.

Yours faithfully,



Andrew Smith BEng(Hons) CEng MIET
Amateur Radio Callsign G1JVV

Licensed UK Amateur Radio Operator

87 Willian Way, Letchworth Garden City, SG6 2HY