



PLAN OF EXISTING TUNNEL COMPLEX, LONG HILL, BUCKLAND.

ENTRANCE STRUCTURE AT NGR TR 3148 4317 ON 80m CONTOUR.

1177 REV. 1:25000

KEY.

- X: DATUM POINT, 80m AOD.
- a: (DOTTED LINES) VARIOUS BRICK FOUNDATION COURSES OF WALLS AND SUPPORTING STRUCTURES.
- b: GALVANISED STEEL AIR DUCT, 24" x 18" x 70'L, FIRED TO FLOOR AND WALL.
- c: FOUR PILES OF RFC PILES, 12" x 6" x 18"H.
- d: LARGE STEEL DUCT IN ROOF, OUT OF WHICH PROTRUDES SEVERAL FEET OF INSULATED STEEL PIPE, LIKELY REACHES SURFACE.
- e: COMPLEX BRICK BUILT STRUCTURE, POSSIBLY FOR AIR CONDITIONING PLANT.
- f: FOUR VERTICAL STEEL PILES IN ROOF, 6" Ø, LENGTH UNKNOWN, POSSIBLY TO JOISTICE.
- g: RIGHT FOOT SECTION OF TUNNEL BLOCKED BY TWO SIRETHICK BRICK AND ONE BRICK WALLS, THE VOID BEING FILLED BY BRICK, FLINT AND CHALK RUBBLE, PENETRATED BY SEVERAL CABLE AND AIR DUCTS.

DESIGNED AND EXCAVATED IN 1934 AS A RADIO STATION FOR THE ROYAL AIR FORCE, THIS COMPLEX CONSISTS OF SOME 320 FEET OF TUNNELS. CONSTRUCTION IS IN TWO STANDARD TUNNEL SECTIONS, ACCESS AND ANCHORAGE HEADINGS OF SIX FEET HIGH AND FIVE FEET WIDE, AND HEADS OF SOME 10'6" WIDE AND 8' HIGH. IN BOTH CASES THE LINING IS OF FOUR INCH "H" SECTION ROLLED STEEL JOISTS, PRE-FORMED TO THE TUNNEL SECTION AND BOLTED TOGETHER THROUGH STEEL CUSSET PLATES AT THE APPEX, AT 2'9" CENTRES. THE JOISTS ARE BARRIC WITH SIX FOOT LENGTHS OF FOUR FEET WIDE HEAVY GALVANISED CORRUGATED STEEL SHEET OF VARIOUS SECTIONS. IN SEVERAL PLACES THIS SHEETING HAS BEEN FIXED WITH A SAND/CEMENT SCREEN, REINFORCED WITH WIRE, STEEL RODS OR EXPANDED METAL MESH, SITTING ON A LOW STRENGTH BOND BRICK WALL, THE BRICKS BEING FITTED INTO THE WEBS OF THE STEEL JOISTS.

THE JUNCTIONS OF THE MAIN TUNNELS ARE SQUARE IN SECTION AND PLAN, ARE BULK BUILT TO A HEIGHT OF TEN FEET AND WERE ROOFED WITH LARGE ROLLED STEEL JOISTS, ONLY ONE OF THE FOUR NOW REMAINS INTACT; THE OTHER THREE PRESUMABLY HAVING BEEN REMOVED FOR SCRAP AS NO TRACES NOW REMAINS.

ALL THE FLOORS ARE FLAT AND LEVEL, SKEEDED WITH AT LEAST 2" OF 4½ TO 1 SHARP SAND AND CEMENT, AND CONTAIN NUMEROUS CABLE, PIPE AND DRAIN DUCTS. THERE WERE AT ONE TIME NUMEROUS BRICK BUILT WALLS AND SUPPORTING STRUCTURES FOR EQUIPMENT; ONLY TRACES OF THESE NOW REMAIN, HAVING PRESUMABLY BEEN REMOVED FOR SALVAGE IMMEDIATELY POST-WAR, THE VALUE OF SECOND HAND BRICKS THEN BEING HIGH.

THE WESTERNMOST LARGE DIAMETER TUNNEL CONTAINS NOT ONLY THE TWO MOST INTACT DIVIDING WALLS BUT ALSO THE REMAINS OF THE VENTILATION SYSTEM, THESE DUCTS AND VENTS ARE REMNANTS OF THOSE ADDED IN WW1 CAPITAL SHIPS, AND ARE IDENTICAL TO THOSE FOUND IN THE "CASEMATE LEVEL" UNDER DOVER CASTLE.

THE EASTERN PORTION OF THIS COMPLEX, SECTIONS B-B AND C-C ON THE DRAWING, ARE THE ONLY PARTS WHICH ARE IN SEVERE DANGER - WHAT MUST HAVE BEEN A STAIRWELL ACCESS TO THE SURFACE OF LONG HILL IS NOW LARGELY COLLAPSED AND UNSTABLE, IT NOT ACTUALLY DANGEROUS, EXTREME CARE SHOULD BE EXERCISED IN THIS AREA, AS THE POST-WAR MINING HAS SHOWN, TRIPPING WITH IT LARGE SECTIONS OF WALL AND ROOF. THE FLOOR OF THIS LEVEL SECTION IS VARIOUSLY CRACKLED BY BRICKS.

THE STRUCTURAL INTEGRITY OF THE REMAINDER OF THE COMPLEX IS GENERALLY VERY GOOD, MOST PORTIONS BEING DRY AND SOUND, LARGE SECTIONS OF WHICH ARE STILL COVERED WITH THEIR ORIGINAL COATS OF GREY AND CREAM PAINT.