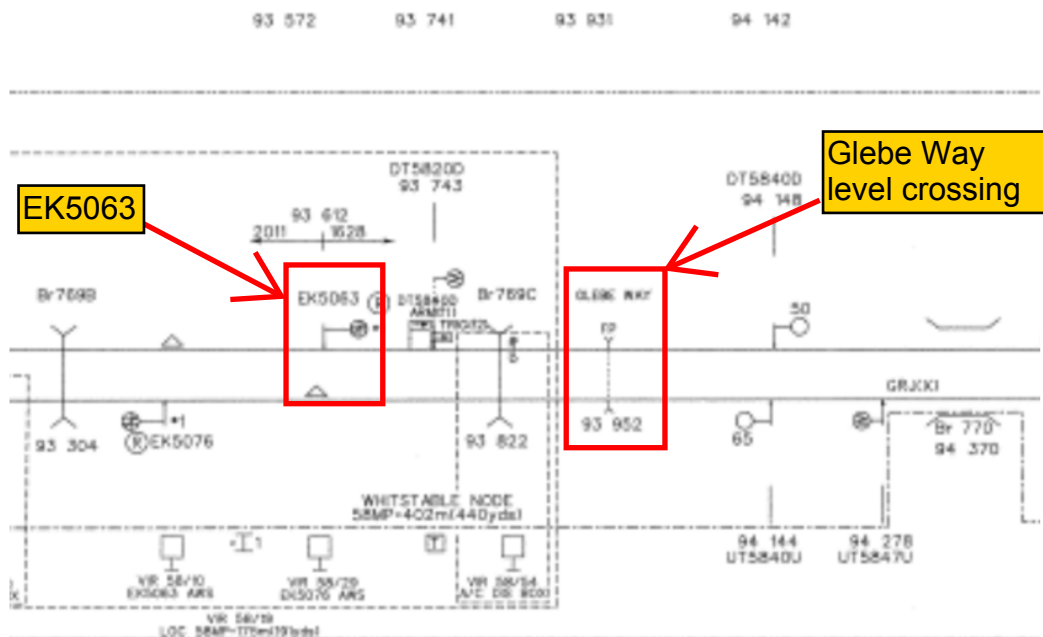


**KENT COUNTY COUNCIL SECTION 118A – HIGHWAYS ACT 1980
PUBLIC FOOTPATH CW80 & CWX40, WHITSTABLE
GLEBE WAY LEVEL CROSSING
RAIL CROSSING EXTINGUISHMENT ORDER 2018
PINS REFERENCE: ROW/3226477**

**NOTE OF NR ON INFEASIBILITY OF MINIATURE STOP LIGHTS (MSLs -
OVERLAY) INSTALLATION IN RESPECT OF GLEBE WAY LEVEL CROSSING**

1. This Note is submitted by Ms. G Kent (NR Level Crossing Manager - Kent Route) with reference to information provided by the Route Asset Manager (NR Signalling) and verified by the National Technical Head of Discipline (NR).
2. It is confirmed to be *infeasible* for an MSL (overlay) – being a form of mitigation that must necessarily conform with both the Up and Down lines (and not one line only) – to be installed in respect of Glebe Way LC. The location of stop signal EK5063 (at 340m from the LC), would fall within the ‘strike-in point’* on the Down line. Any installation of an MSL overlay for this location would inevitably give rise to unsatisfactory ‘dark mode events’ at the LC, so entirely negating MSL functionality and the mitigation purpose.
3. On the Down line, line speed (LS) at the LC is 65mph**. This reduces to 50mph at 106m beyond the LC.
4. The distance between signal EK5063 and the LC is confirmed to be 340m, as shown in the relevant NRG (National Records Group) diagram. NRG is the proper custodian of this diagram (below). The LC is identified here as “Glebe Way; FP; 93 052”.



5. The strike-in point, on the Down line, may be calculated on the basis of warning times*** of 20s and 17s (alternatively), with regard to varying train speeds, as follows:

- a) Warning time of 20s, at 65mph train speed - requires strike-in point at **581m**
- b) Warning time of 17s, at 65mph train speed - requires strike-in point at **493m**

- c) Warning time of 20s, at 58mph**** train speed - requires strike-in point at **518m**
- d) Warning time of 17s, at 58mph**** train speed - requires strike-in point at **440m**

- e) Warning time of 20s, at 56mph**** train speed - requires strike-in point at **425m**
- f) Warning time of 17s, at 56mph**** train speed - requires strike-in point at **500m**

- g) Warning time of 20s, at 53mph**** train speed - requires strike-in point at **474m**
- h) Warning time of 17s, at 53mph**** train speed - requires strike-in point at **403m**

- i) Warning time of 20s, at 52mph train speed - requires strike-in point at **465m**
- j) Warning time of 17s, at 52mph train speed - requires strike-in point at **395m**

- k) Warning time of 20s, at 50mph train speed - requires strike-in point at **447m**
- l) Warning time of 17s, at 50mph train speed - requires strike-in point at **380m**.

6. A warning time of 20 seconds taking into consideration;

- a. the position of the MSL. Due to site characteristics and spatial constraints, a minimum of 3m from the nearest running line is required. More specifically, positioning of an MSL unit at this location is determined by the decision point (i.e. no closer than 2m to the nearest running rail) and any site-specific features present. At Glebe Way, presence of the fence and posts (approx. 2m from the running rail) prevents installation at the current decision point;
- b. the time required to traverse the crossing safely (12 seconds [traverse time] + 5 seconds [required to reach a position of safety¹]) and;
- c. the “system reaction time²” – the length of time which may be required for the OMSL system to engage.

This is well founded and consistent with NR policy and good practice, with regard to the LC (Kent XX: 29.9.20).

- 7. As set out at paragraph [5(h)] above, even in a hypothetical scenario of adopting the minimal warning time (17s) in respect of a train speed that is slower than the fastest train speed example (52mph) given for the Down line in JG6, the strike-in point would still fall 40m before EK5063 signal, on approach to the LC. Therefore, even this hypothetical scenario would not enable the installation of MSLs (overlay).
- 8. Also, albeit a stop signal does not fall within the strike-in point on the Up line, nonetheless, an MSL (overlay) cannot be installed in respect of the LC given that the installation and operation parameters for the MSL must account for both lines (i.e. both Up line and Down lines), not merely one line.

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*see ORR RSP7 [Appendix WS01] definition, pg. 73.

¹ It is the industry practice that 5 seconds is the minimum amount of time one has to spend in position of safety (i.e. not at risk of being struck by a train). This applies equally to the railway workforce and members of public crossing it.

² A well-established industry practice applied within Network Rail Signalling Engineering discipline.

**65 mph is also the HAS for the Down line, at the LC.

***see ORR RSP7 definition, pg. 73.

****58mph is an average train speed, taking account of the Down line LS and Down line HAS (both being 65mph), when also incorporating the fastest train speed 'example' (being 52mph) of all 10 x examples shown for the Down line during the months of March, July and August 2020 [Appendix JG6: SE Train Speed Data (page 18)].

G. Kent, Network Rail

1.10.20