

## Note on Walking Speeds

1. It is recognised that there needs to be consensus on average walking speeds that would apply to the following two scenarios:
  - a. Rural off road walking (field edge, cross field routes)
  - b. Urban walking on tarmac footways
2. Walking speeds are stated by the following people in their Proofs of Evidence:
  - a. Susan Tilbrook for Network Rail
  - b. John Russell for The Ramblers
  - c. Andrew Woodin for Suffolk County Council
3. The following text is provided by Susan Tilbrook with regard to off road walking:

*Guidance on calculations of walking pace on the publicly available Ramblers website suggests an average walking speed of 2.5 miles an hour with a proviso on level of fitness increasing this pace and that ground conditions may reduce this rate.*
4. This equates to 1.118 m/s which has been applied to off road routes.
5. The following text is provided by Susan Tilbrook with regard to urban walking:

*The route is along tarmac footways and Guidance from the Chartered Institution of Highways and Transportation (CIHT) guidance for Providing for Journeys on Foot (an extract from this guidance is appended to my Proof of Evidence, NR32/2 at Tab 15) indicates a walking rate of 1.4m/s (approximately 3 miles/hour) for people without mobility difficulties.*
6. The exact speed of 1.4m/s is 3.13 mph.
7. The following text is provided by John Russell:

*The speed that a pedestrian walks at is dependent on a number of factors including, but not limited to, surface material, terrain, age and physical ability. Seeking to arrive at a consistently applied average pedestrian walking speed, an average speed of 1.2m/s is applied in the design of highways in England to determine the length of time a pedestrian would typically take to cross a road. The speed of 1.2m/s equates to 4.3kph (2.7mph) and is based on the pedestrian walking on a fairly level, hard surface (for example tarmac or asphalt). I have provided an extract of the highway design guidance at Appendix OBJ/036/W10/2-2. I would expect the average speed to reduce if the surface is soft (for example grass verge) and also if the terrain slopes upwards.*
8. 1.2 m/s is 2.685mph.
9. The following text is provided by John Prest in the context of movements across level crossings:

*The first step is to calculate the required time to traverse the crossing safely. This is done by dividing traverse distance by the average walking pace (1.18 metres per second).*
10. Additional documentation from the DfT Journey Time Statistics: Notes and Definitions is attached to this note. Journey Time Calculations within section 4 of this document state on road

walking speeds of 4.8km/h (2.98 mph or 1.333 m/s) and off road walking speeds of 4km/h (2.485 mph or 1.11 m/s).

11. Suffolk County Council witnesses do not make any recommendations regarding any specific guidance but use the 2.5mph figure used by Ms Tilbrook in her evidence when calculating walking times.
12. It is clear that various guidance exists regarding walking speeds and to assist the inquiry, consideration has been given to the selection of common walking rates for use by all parties.

## **Conclusions**

### **Off-Road Walking**

13. The walking speed deemed appropriate by The Ramblers (2.5mph) as representative of an averagely fit and mobile adult is close to the off-road walking speed stated in the DfT Journey Time Statistics document (2.485mph). This is slower than the walking speed (2.685 mph) suggested by Mr Russell, however he acknowledges that he would expect this to be reduced for soft surfaces. The Ramblers note that a verge may combine soft and uneven surfaces.
14. In conclusion, it is agreed by all parties mentioned in paragraph 2 above that 2.5 mph (1.118m/s) will be used by all parties in calculations of journey times for rural off-road routes as being indicative of the likely walking speed of an averagely fit and mobile adult.

### **On-Road Walking**

15. The walking speed suggested by Ms Tilbrook (3.13mph) is faster than the walking speed suggested by Mr Russell (2.685 mph). The on-road walking speed stated in the DfT Journey Time Statistics document (2.98mph) sits between these walking rates and would represent a suitable compromise between the Ramblers and Network Rail.
16. In conclusion, it is agreed by Network Rail and The Ramblers that the walking speed of 2.98mph (4.8km/h or 1.333 m/s) will be used in calculations of journey times for on-road urban tarmac footway walking routes as being indicative of the likely walking speed of an averagely fit and mobile adult.
17. However, Suffolk County Council do not agree with this position and will use a walking speed of 2.5mph.