

BRIEFING NOTE - COLOUR BLIND FRIENDLY TICKETING

WHAT IS COLOUR BLINDNESS?

We see colour through three types of cone cells in our eyes, which absorb red, green and blue light. With colour vision deficiency (CVD) one type doesn't operate normally. Most types of colour blindness involve defects in red or green cones, meaning many colour combinations can be confusing.

IMPACT OF CVD WHEN BUYING TICKETS

Colour blind people often have problems when buying tickets. Information presented using colour alone may not be accessible because even mild CVD can make it tricky to differentiate between categories or items where no text or symbols are provided.

COMMON PROBLEMS

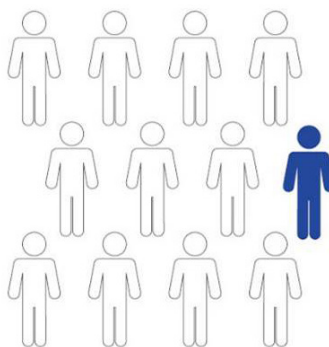
- Distinguishing between different coloured sections of stadium plans
- Distinguishing 'available', 'low availability' and 'unavailable' tickets provided in colour only, e.g. green, orange and red dots
- Distinguishing between colour-only keys and colour information on plans, e.g. season ticket price bands
- Distinguishing dots & shapes from background colours
- Reading coloured text against background colours, e.g. black against red, pink against blue
- Distinguishing 'important' text highlighted by colour, e.g. red text from black text

ON MATCHDAY TICKETS

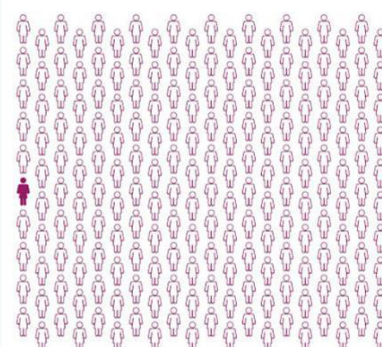
- Relating information on matchday tickets to stadium wayfinding
- Making sense of information provided on tickets in colour only
- Reading coloured text against some background colours

Colour blindness is one of the world's most common inherited conditions. Statistically, it affects:

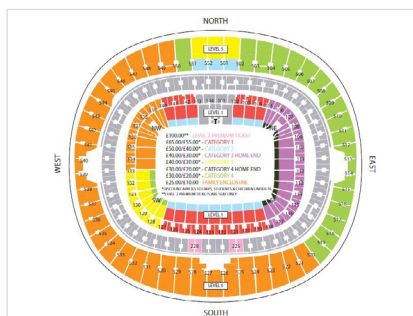
1 IN 12 MEN



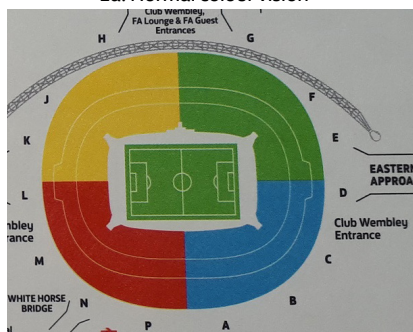
1 IN 200 WOMEN



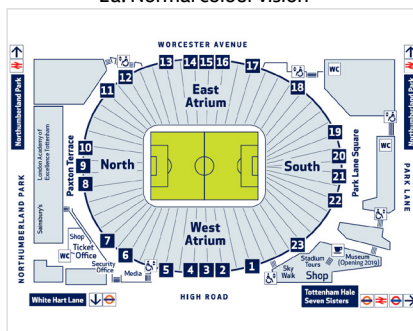
That's approximately 300 million people worldwide.



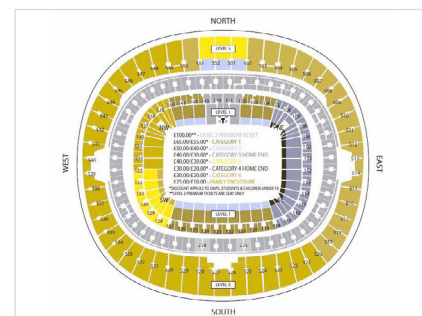
1a: Normal colour vision



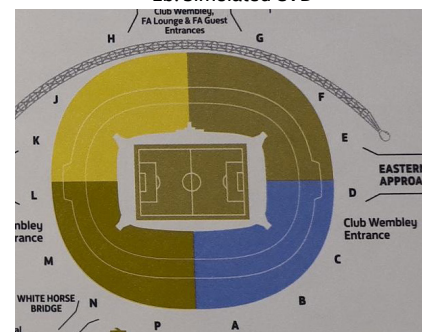
2a: Normal colour vision



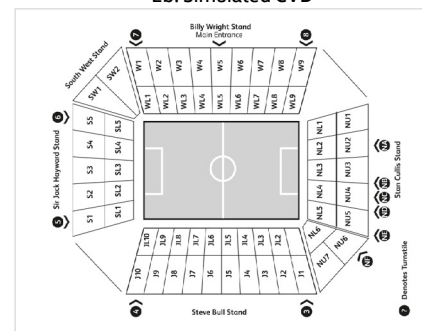
3a: Tottenham Hotspur - good practice



1b: Simulated CVD



2b: Simulated CVD



3b: Wolverhampton Wanderers - good practice

TOP TIPS AND EASY FIXES

- Don't use colour only to highlight information
- Label stadium plans, etc. rather than relying on a colour-only key
- If labelling is inappropriate consider shapes, patterns, symbols, etc. instead
- Clearly define boundaries between different sections by outlining with a strongly contrasting colour such as white or black
- If emphasizing important information in text using colour ALSO use other effects such as italics, bold, different font size or underlining
- Check links and hover effects have good contrast
- Calculate colour contrast ratios using software such as Colour Contrast Analyser, Snook and Juicy Studio
- Use colour blindness simulation software to see if your designs are accessible, e.g. Color Oracle
- Check colour contrast ratios meet minimum requirements of 3:1

THE IMAGES ON THE RIGHT SHOW HOW TOTTENHAM HOTSPUR FC SUCCESSFULLY ENSURED PEOPLE WITH CVD COULD EASILY ACCESS TICKET INFORMATION

SUMMARY

No colour scheme can be completely accessible, but chosen colour schemes can be made more accessible by:

- Ensuring you have sufficient contrast between important colours
- Using secondary labels
- Finding other ways of marking boundaries between colours
- Using text/symbols in addition to colour

AVOID

- Red vs black / pastel colours

FINALLY

Always check colour contrast ratios, don't assume strong contrast just because colours look different to you!

Further information

For more information see <http://www.colourblindawareness.org/colour-blindness-and-sport> and The Sports Ground Safety Authority's Guide to Safety at Sports Grounds 'Green Guide' – 6th Edition, in particular Annex C <https://sgsa.org.uk/wp-content/uploads/2018/10/Annex-C-Guidance-on-colour-vision-deficiency.pdf>

