

# Curriculum vitae



Name	Jaskieran Dhandwar (Kieran)
Location	Loughborough, UK
Phone number	(+44) 07837 251 728
Email	jaskieran.dhandwar@gmail.com

I am an eager and dedicated pavement engineer with a passion for design, technology, coding, teamwork, and involvement on major transportation projects, seeking an exciting role within a specialist design team.

## Work experience

Pavement Engineer	Apr 2022 – Present
Graduate Engineer	Nov 2020 – Mar 2022
Summer Placements	Jun 2019 - Sep 2019, Jul 2018 - Sep 2018, Jul 2017 - Sep 2017
Industrial Placement	Aug 2015 - Jul 2016

Following on from the MCHW Re-write, Kieran has been working as the lead technical author to undertake the cyclic review for CD 239 and CD 241 (the latter is a new DMRB document). In addition, he has been involved in identifying technical and editorial updates that have been prompted by future SHW updates which will impact the following documents: CD 224, CD 225, CD 226, CD 227, CD 236 and CM 231. Prior to this, Kieran has been working as the lead technical author for the new Series 1100 (CC 207) which focuses on the requirements for kerbs and footways along the SRN for National Highways (NH).

When working as a Graduate, I continued implementing my skills and knowledge from my previous four placements to take highway projects through the different project stages, from concept to handover, by organising site testing, undertaking data analysis, writing pavement evaluations, producing contract documents and drawings, and undertaking site supervision. Notable projects include A1 Darrington to Dishforth DBFO, A19 DBFO, M54 to M6 Link Road, Northern Ireland DBFO1, Armley Gyratory and A1036 Tadcaster Road. In addition, I conducted asset and project management tasks working on projects such as the A303 Stonehenge as Efficiency Lead tasked with £43 million savings by 2024, revamping the Highways England (HE) Lean Tracker, writing reports for the Kingdom of Saudi Arabia MoT, and producing HE's Task 1-911 Concrete Deterioration Model. By working on a range of projects, I improved my ability to work with integrated teams with people from various parent companies, to understand and improve the analysis behind asset management, and to be involved with project management tasks for high-value projects.

In 2019, I supervised the A52 Cropwell Road Remediation works, dealing with a poorly removed gully, planing existing pavement, laying new material to assist water runoff, and existing cracks on a recently built pavement. In addition, I was involved with the production of a Prezi presentation for the Highways England PEG (Pavement Efficiency Group); produced drawings for the SROH and the upcoming HD25 (now CD225) including reviews of existing documentation; produced a WLC analysis tool for London Luton Airport to analyse the cost impact between ground works or improved pavement design; produced drawings showing current surface defects, GPR information and treatments for the A34, A45 and A38 routes of Birmingham SPRINT; and provided a guidance manual to allow for defects along the A6 in Ireland to be correctly categorised and treated.

In 2018, I worked on projects such including traffic analysis for MOTC Bus Infrastructure, producing pavement analysis for SSE routes (20km length), producing literature summaries for Highways England Task 1 -614 (ravelling testing methods) alongside routine pavement analysis reports for A2 M2 Junction 1, A12 Junction 27 to 26, A259 Wish Street and the M42 Junction 6.

In 2017, my work included producing standard detail drawings, analysing traffic data and a Series 700 specification for Junctions 36-38 and 40-44 of the M4; assessing the bearing capacity of the M1 Junction 45 carriageway prior to works; database creation to review data from the Sheffield PFI; introducing new analysis software and procedures along with improved Excel workbooks (analysis possible in 2-3 steps within a minute compared to the existing 10+ steps within 1 hour); and analysis of the M6/M62 SMP site data (traffic, FWD, cores, laboratory data) to produce proposed treatments along the complete length of both schemes.

I was offered a placement year after my A-Levels with AECOM at their Nottingham office. I worked within the PDAM team (Pavement Design and Asset Management), undertaking work on projects such as Felixstowe Port, Mersey Gateway, analysing the M20, rewriting IAN 73 (a guidance document), creating a program (TfL CrackWise) for Transport for London, and many other projects. I also was lucky to attend several construction sites while also working in the laboratory and gaining a qualification in LUMEN (Loughborough University Mathematics for Engineers).

## Education

Civil Engineering MEng  
*Loughborough University*

Oct 2016 - Jul 2020

2:1 honours degree. Key modules include Fluid dynamics, Hydraulics, Water Engineering, Structural Analysis & Mechanics, Finite Element Structural Analysis, Geotechnics, Surveying, Contract Law (NEC4), Project Management, Construction Management, Engineering Materials, Structural Design and Mathematics.

A-Levels & GCSEs  
*Queen Mary's Grammar School*

Sep 2008 – Jul 2015

## Skills

I am able to use analysis software such as SAP2000, MPTRN, BISAR and ELMOD while also having Python and MATLAB knowledge with the ability to write HTML and CSS. I can also use AutoCAD, Revit, 2D Design, Google Sketch Up and Pro/DESKTOP. I am advanced in Microsoft Teams, Word, PowerPoint and Excel with the ability to apply VBA coding, for example to write macros for workbooks. I desire to continue to advance my knowledge and learn more per project requirements.

I have been involved with website design, graphic design and branding while working to create media for other companies, which has allowed me to develop my skills in creative thinking and communication – [dreamfrogmedia.co.uk](http://dreamfrogmedia.co.uk). I have the ability and experience to present information in a fun, alternative way to those traditionally used in engineering (videos/use of Prezi).

## Achievements

ICE East Midlands Emerging Engineer 2021 ([ice.org.uk/news-and-insight/latest-ice-news/emerging-engineers-take-part-get-latest](http://ice.org.uk/news-and-insight/latest-ice-news/emerging-engineers-take-part-get-latest))

I submitted a 4,000-word paper on 'The impact of climate change on Hot Rolled Asphalt (HRA) surfacing' and undertook a presentation to a panel of industry experts. I was awarded the winner of the ICE Emerging Engineers Award 2021 in the East Midlands. This allowed me to share my research with other engineers while also improving my paper writing and presentation skills in front of a professional and knowledgeable audience.

Build Camp ([thinkup.org/case-studies/build-camp](http://thinkup.org/case-studies/build-camp))

I travelled to the National Construction College in Norfolk to experience a 4-day first-hand civil engineering project. We had to plan, build and operate a section of a railway line across a specially created landscape using real construction materials, processes and machines. Facilitators from Think Up together with engineers from Balfour Beatty also joined to guide us through this experience. Working on-site with people who I had not met before enabled me to improve my skills in teamwork and experience a realistic scenario.

Arkwright Scholarship

I gained a scholarship for my A-Levels from the Arkwright Foundation, with my sponsor being the University of Warwick. To obtain this, I passed both the application and aptitude paper stage, as well as an interview at Imperial College London. This provided me with many opportunities to expand my knowledge and helped me pursue a career in engineering.

World Challenge

During the summer of 2013, I travelled to Western Kenya and Uganda where I spent four weeks with 14 other students. Prior to this, I had to raise £3,800 through events such as fun runs, bag packing and car washing. While on the expedition, I was the leader for 3 days while we climbed Mount Elgon, which involved maintaining morale and meeting deadlines. While there, we also built a new playground and decorated the Kiambariki Primary School. During the expedition, I had different roles within the team such as budgeting, forward planning and supply management.