# **UMAIR HAMID KEEN**

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#### **PROFESSIONAL PROFILE**

- Highly skilled and qualified Engineer-In-Training with more than 5 years of experience in highway designing, construction management and contract administration
- Capable of working independently with minimum supervision and having the ability to support high-budget engineering projects
- Excellent command of standard engineering practices involved in infrastructure design and construction
- Strong technical background of project planning, cost estimation, traffic control design and traffic simulation
- Plan on submitting the Profession Engineers Ontario's Experience Record Form in 2019 to obtain Professional Engineer License

## **SPECIALITIES**

Project Management | Project Estimations | Project Planning | Transportation Engineering | Transportation Modelling | Highway Design | Municipal Design | Traffic Engineering | Traffic Simulation |

#### **ENGINEERING TOOLS**

AutoCAD Civil3D | AutoTURN | MS Project | VISSIM | VISUM | ProVI | ArcGIS | MATLAB | Primavera P6 Professional | ETABS

#### PROFESSIONAL EXPERIENCE

Stantec Consulting Ltd, London, Canada Engineering Intern (January 2018 – Present)

- Developed the signage plan and pavement marking drawings for the improved Kingston/Highway 401 interchange, Homer Watson Interchange and Veteran Memorial Parkway Extension using Ontario Traffic Manual 1, 5, 6 and 11
- Developed staging plan and typical drawings for the construction of Kingston/Highway 401 interchange and VMP Extension project
- Proposed road network modifications for converting an uncontrolled intersection to a controlled intersection in the Town of Lakeshore
- Planned and drafted the traffic signal layout plan using OTM 12 for various municipal projects
- Planned and drafted the temporary traffic signal plan (PHM-125 drawings) to be used during construction of Kingston/Highway 401 interchange, Homer Watson Interchange
- Determined the safe turning radius for WB-20 for an intersection modification project on Highway 89
- Conducted the on-site roadside safety review for the Thorndale bridge replacement project and formulated roadside safety report to be submitted to the Middlesex county
- Coordinated with draftspersons and technicians in transforming designs and concepts to working drawings

## Gul Ahmed Textile Mills Limited, Pakistan Project Engineer (October 2016 – October 2017)

- Managed the team of five Civil Engineers and Supervisors for the construction of 67,000 square feet building project
- Oversaw the daily construction, testing and inspections (civil and structural) for a 3.5 Million
  Dollar Weaving Unit to ensure conformity with QA specifications, Building Codes and contract documents

- Coordinated with consultants, end-user and contractor for project drawings and building design preparation
- Ensured timely completion of project milestones using weekly look-ahead schedule
- Completed the project 20 days ahead of schedule and 80,000 Dollars under budget by recommending cost-effective design changes to streamline the project
- Prepared the bid packages (tender document, contract document, technical specification and pricing sheet) of projects under 100,000 Dollars and evaluated the contractors bid

# Al- Mehran Builders Pak (Pvt.) Ltd, Pakistan Site Engineer (May 2016 – September 2016)

- Coordinated the construction of a 4.5 Million Dollars urban road connecting DHA City to the Main National Highway
- Monitored the site labor force and the work of subcontractors to ensure quality control in construction of flexible and rigid pavement
- Calculated the earthworks and other material quantities to efficiently procure material and machinery on site
- Liaised with assistant resident engineer, subcontractors, supervisors, quantity surveyors and the general workforce involved in the project

## Fabcon Contractors (Pvt) Ltd, Pakistan Civil Engineer (December 2010 – September 2013)

- Managed a team of Junior Engineers for the construction of 81-acre residential project containing 450 residential units
- Planned and scheduled project activities progress using Primavera Project Planner
- Developed project cost estimates, Bill of Quantities and Bar Bending Schedule for 120 and 200 square yard bungalows
- Inspected the structural elements of 4-story industrial building before concrete pouring
- Liaised with the Town Planner and Drainage Consultant in planning the sewerage and drainage requirement of the project
- Drafted shop drawings of concrete reinforcement using AutoCAD

#### **ACADEMIC QUALIFICATIONS**

#### M.Sc. In Transportation Systems

## Technical University of Munich, Germany (Oct 2013 – Feb 2016)

Thesis: Sensitivity analysis of traffic based influencing factors of travel speeds on urban road segments with fixed time traffic controlled intersections

Grade: 2.3/4.0 (1.0 being best) - Degree Recognized by World Education Services of Canada

#### **B.Sc. In Civil Engineering**

#### NED University of Engineering & Technology, Pakistan (Jan 2007 – Dec 2010)

Thesis: Intelligent Transportation Systems based traffic management model for selected road network using S-Paramics

Grade: 3.7/4.0 (4.0 being best) - Degree Recognized by World Education Services of Canada

## PROJECT WORK

#### Congestion charging in the city of Munich

- Data collection of traffic flow at Dachauerstraße, Munich using Automatic Number Plate Recognition (ANPR) Technique
- Data Analysis and Graphical representation of traffic flow by carrying out speed and travel time calculation
- Developed the bottleneck profile and determined the Level of Service (LOS) of the mentioned street

## **Urban Infrastructure Analysis in North Munich**

- Calculated the capacity, waiting times and Level of Service of each intersection
- Developed a prognostic model to forecast the traffic volume in North Munich in 2030
- Simulated the traffic model of North Munich on VISSIM to ascertain the bottlenecks and congested intersections

## Modelling of Signalized Intersection in PTV VISSIM

- Developed a microscopic traffic model of three intersections with left turn lanes and fixed time signals
- Analyzed the traffic flow (mean speed, queue length and waiting times) with varied traffic volume
- Compared the existing Level of service with different scenarios of carried green times

## LANGUAGE SKILLS

English (fluent), Urdu (native), German (basic)