



JAN H. ZICHA, PE - Director of Rail Technology

OVERVIEW:

Professional Engineer in Civil and Structural Engineering with expertise in High-Speed Rail & Rapid Transit Infrastructures. He has worldwide experience in design & construction of buildings, bridges, transportation, & industrial structures, and in coordination, inspection & quality control.

Expanded Resume <http://db.tt/sBO89x2E> ; **Licenses**
Transcripts <http://db.tt/GZ6LqDBz> .

EDUCATION & TRAINING:

University of Zilina, Czechoslovakia, 1965

Major: Transportation Infrastructures/Railway track and structures.
European Engineering Diploma, MS Equivalent, 167 credit hours.

Almeda University, Idaho, USA,

Master of Science - Major in Civil Engineering, 2005.

Licenses:

Registered Professional Civil Engineer: Maryland 12820 & Wisconsin 21397-006.

Languages:

English, Czech, and Russian.

PROFESSIONAL EXPERIENCE:

Jan has extensive domestic & international experience in civil, structural & railway engineering. He served as a Project Manager, Infrastructure Team Leader, Principal Structural Engineer, Principal Trackwork Engineer, Director of Research & Development, & Railway Technology Specialist on major domestic & international projects.

Seoul-Pusan High-Speed Rail Line initial stages designed & built to his specifications. Line operates at 218 Mph (350 km/h) speed specified by Jan in 1989.

Experience in Combination of Railway Engineering and Structural Engineering

Rapid transit projects in Shenzhen, China, 2003, Buenos Aires, 2001 to 2002, Caracas, 2001, Bogota 1999 to 2000, Bangkok 1998, Kaohsiung 1993 to 1994, Washington & Baltimore (WMATA & MTA) 1978 to 1989 & Prague 1969 to 1971 * High-speed rail projects in Korea, Honam HSR 2002 to 2003, East-West HSR 1994 to 1995, & Seoul-Pusan HSR 1989 to 1991, to the West Bank-Gaza Connector for mixed traffic operations 2005 to 2006, & to Commuter Rail in Istanbul 1997. * Development of Slabtrack for High-Speed Passenger & Heavy Axle Load Freight Operations, Pueblo, Colorado, & PCA Labs in Chicago, 2000 to present. * Development of Specific Criteria for Upgrading Existing Track and Roadbed for High Speed Operations. FRA Order No.: DTFR53-00-P-00377. 2000 to 2001.

Experience in Structural Engineering

Residential and public buildings, design and construction, 2004 to present, Salt Storage Building in Washington DC, 2001 to 2002, Industrial structures in Baltimore 1977, BWI Airport building, Pier A and B, 1974 to 1975. * Bridge design: Extensive bridge & tunnel aspects of the above railway projects 1978 to 2006. Hwy. I-95 bridges, railway bridges, and WMATA Minnesota Ave. bridges 1972 to 1977. * Pre-fabricated railroad bridges for emergency use, Czechoslovakia, 1966. * Material Engineering: Retrofit of cracked concrete members & members damaged by alkali aggregate reaction, by vacuum penetration with methyl methacrylate, WMATA 1986 to 1989, & Taipei 1994.

Experience in Trackwork and Railway Engineering

Specialized use of AutoCAD to generate drawings of station track groups, Israel 2006. Trackwork supply industry engineering. Track Components Development, Laboratory Testing, & Special Trackwork Manufacture. American Track Systems, Inc. in 1996, and Sonneville International Corporation 1991 to 1993. Quality control, Eurotunnel between United Kingdom & France, 1992. Trackwork fastening qualification & production testing, Los Angeles, Taipei & Prague, 1993 to 1997.

Experience in Geotechnical Exploration by Remote Sensing Methods of Engineering Geophysics Utilization of georadar, microseismics & microgravimetry for the generation of geotechnical profile for design, construction quality control, performance monitoring & maintenance planning of railroad track. Utilization of Controlled Source Spectral Analysis of Surface Waves Method for non-intrusive production of boring logs' equivalents for structural foundation design.

Experience in Highway Design, Construction Supervision and Surveying

Access roads to railway yards & railway lines, 1989 to 2006. Paved recreational trails, proposal stage to present. Prague-Brno Highway Project in Czech Republic, 1967 to 1968.

PUBLICATIONS, PRESENTATIONS AND RESEARCH REPORTS:

Civil Aspects of New Generation Railways for Asia. Rail Solutions Asia, Hong Kong, March 28, 2003 Ballastless Track of Eurotunnel LVT and its Global Utilization to Achieve Unprecedented Reduction of Track Maintenance, and Development of Ballastless Track Systems in USA. Conference on the Modernization of Railway Lines, Sponsored by European Commission as a part of Centier Excelencie Project, Zilina, Slovak Republic, November 6, 2001 * *Development of Specifications for Upgrading Existing Railroad Track to Support High Speed Passenger and Heavy Axle Load Freight Operations*, Annual Conference of High Speed Ground Transportation Association in Milwaukee, ASCE Session, USA, May 17, 2001. * *Perspectives of High Speed Rail in the USA and Far East*, The First International Conference on Advanced Transportation, Pardubice, Czech Republic, September 19, 1995. * *Upgrading Existing Lines for High Speeds: Infrastructure Aspects and Limitations*. Presentation at the 11th International Convention on High Speed Rail and Magnetic Levitation. San Francisco, May 4, 1994. * *Upgrading Track and Roadbed for High Speed Rail Operations*, Specific Criteria Development, FRA Order No.: DTFR53-00-P-00377. January 30, 2001. * *Geotechnical Exploration by Remote Sensing Methods of Engineering Geophysics* for the Seoul, Korea- Pusan High Speed Rail Line. 1992.

SYNERGISTIC ACTIVITIES:

Professional Memberships:

American Society of Civil Engineers (ASCE), American Railway Engineering and Maintenance of Way Association (AREMA), Transportation Research Board of National Academy of Sciences, Affiliate, High Speed Ground Transportation Association (HSGTA), Washington Area Railway Engineering Society (WARES), Czech University of Technology, Prague, Railroad Engineering Teaching, Prague, 1968 to 1969.