

DENNIS W. OLSON, CEI
Elevator/Escalator Expert

Equipment Experience Elevators:

Relay logic, solid state, SCR DC and VVVF AC drive controller systems. Geared, gearless, MRL and PM/AC traction hoist machines; High, Mid, and Low rise passenger and freight applications. Traction hoist and governor cables. Hydraulic elevator passenger and freight applications. Hydraulic pump, tank, and valve units. Hydraulic jacks, cylinders operation and protection. Freight and passenger elevator door operating systems; cab and hoistway including door detection devices and gate reversal edges. Metal tape, reflective sensor, and magnetic vane hoistway leveling systems. Chain and cable driven electro mechanical table selector and leveling systems. Car sling, platform, and cab construction; standard, corner post and cantilever applications. Governors, Type A, B and C safeties and activation. Hall and cab signal fixture installation and operation. Car and hoistway door equipment including door panels, door gibs, operators and door detection devices; Leveling devices including metal tape, reflective sensor, magnetic vane hoistway leveling systems and door zone sensors; Controller systems including relay logic, solid state and computerized microprocessor based logic systems; Hoist machines and machine brakes including overspeed protection and unintended motion devices; Governors and governor activating devices; Hydraulic pumps, valves, jack assemblies and pressure piping; Cab interior wall panels and drop ceilings. Emergency Operation and Signaling Devices. Firefighters Emergency Operation. Emergency or Standby Power systems; transfer and operation. Code required inspections and testing.

Elevator:

Mis-leveling, re-leveling, sudden stops, over speeding, safety activation, erratic door operation, door contact, entrapments, controller faults, machine/equipment failure, improper maintenance, elevator installation and maintenance worker injuries

Equipment Experience Escalators:

Solid state and VVVF AC drive controllers. Remote and in truss machine rooms. Single and modular multi drive motor applications. Single and multi brake applications. Drive assemblies. Steps, tracks and step chains. Comb plates and floor plates. Hand rails and hand rail drives. Safety devices, safety switches; location and application. Balustrades, skirts and decking. Steps, step treads, step risers and demarcation lighting; Comb plates, comb impact switches; Hand rails, hand rail speed switch and broken handrail switch; Anti-slide devices; Floor surfaces; Signage, Sleep mode operation. Code required inspections and testing.

Escalator:

Sudden stops, clothing entrapments, loose equipment injuries, skirt obstruction, comb plate injuries, direction reversal, over-speed condition, emergency brake application, falls, escalator installation and maintenance worker injuries.

Code and Safety references:

ASME A17.1 Code for Elevators and Escalators; ASME A17.3 Safety Code for Existing Elevators and Escalators; ANSI A17.2 Guide for Inspection of Elevators and Escalators; ANSI A117.1 Accessible and Usable Buildings and Facilities; ASME A18.1 Safety Standard for Platform Lifts and Stairway Chairlifts; National Elevator Industry Field Employee Safety Handbook; OSHA; National Electrical Code; AHJ (Authority Having Jurisdiction) local codes.

PROFESSIONAL EXPERIENCE

2013 to present **Robson Forensic, Inc.**
Associate

Provide technical investigations, analysis, reports, and testimony toward the resolution of commercial and personal injury litigation involving elevators, escalators, moving walkways and related transportation equipment. Investigations include equipment design, modernization, maintenance, repair, inspection, failure analysis and causation, interpretation, and application of contracts, contracting procedures, standards, codes and regulations.

2008 to 2012 **Vertical Transportation Excellence**
Project Manager

Responsible for developing standards for elevator and escalator designs, providing solutions for upgrading existing installations, conducting in-depth safety inspections to meet Code and special requirements, and instructing clients and designers with the compliance of official codes. Also performed construction, investigative, and acceptance inspections.

Summary of Projects:

1 World Trade Center, New York, NY, Port Authority of New York / New Jersey (PANYNJ). (2010-2012) Provided daily on site quality control and quality assurances services throughout the installation of 70 elevators and 11 escalators to ensure conformance with plans, specifications and contractor's approved submittals and shop drawings. Provided instruction to PANYNJ for resolution of equipment installation problems. Witnessed as QEI Certified Elevator Inspector onsite tests as performed by the elevator contractor in accordance with the requirements of ASME A17.1, Safety Code for Elevators and Escalators, and supplements based upon the New York City Building Code RS-18 and Chapter 30.

Elevator Assessments, New York, NY, New York City Housing Authority (NYCHA). (2009-2010) Project Manager responsible for team coordination for the assessment and performance evaluation of standard operating procedures for elevator services. The NYCHA system encompasses more than 3,300 elevators operating within 288 public residential facilities. In-depth evaluations of elevator design, procurement, construction and rehabilitation, acceptance, and maintenance operations and procedures were performed with results benchmarked to recognized industry standards, as well as standards of other comparable private and publicly funded housing and mass transportation systems. The mission of the study was to identify strengths and weaknesses of the current operational procedures and provide recommendations for improvement of overall performance where applicable.

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Elevator & Escalator Maintenance Assessments, Washington, DC, Washington Metropolitan Area Transit Authority (WMATA). (2010) Vertical Transportation Specialist responsible for performing on-site equipment maintenance assessments of 9 elevators and 30 escalators located at owner assigned sites within the WMATA system. Provided written report providing necessary documentation and photographs to support findings.

Elevator & Escalator Maintenance Assessments, Atlanta, GA, Metropolitan Atlanta Rapid Transit Authority (MARTA). (2010) Vertical Transportation Specialist responsible for performing on-site equipment maintenance assessments of 149 elevators and 112 escalators located within the MARTA system. Verified system maintenance contractor performance of recommended repairs identified in written unit assessments provided by VTX to client as identified during field observations. Coordinated completion of deficiency repairs with maintenance service contractor.

Elevator Incident Investigation, Atlanta, GA, Metropolitan Atlanta Rapid Transit Authority (MARTA). (2010) Vertical Transportation Specialist responsible for performing on-site and document investigations of an elevator incident and providing an opinion of possible contributing conditions. The work consisted of a facility and document investigation only.

Holiday Inn Express Elevator Modifications, Washington, DC, Springfield Hotel Associates, LLC. (2010) Vertical Transportation Specialist responsible for providing consulting support services related to an insurance claim and analysis for an elevator repair and modernization at a Holiday Inn Express.

2009 Dulles International Airport Escalator Inspections, Chantilly, VA, Metropolitan Washington Airports Authority. (2009) Vertical Transportation Specialist responsible for providing final acceptance testing and inspection services on 117 escalators located at Dulles International airport.

2005 to 2008 **KONE, Inc.,** Washington, DC
Mid-Atlantic Regional Modernization Operations/Project Manager
Responsible for directing projects and managing the operations of the Modernization Department. Duties included managing contractual requirements, for both government and private-sector clients, pertaining to the engineering and procurement of materials for proposed construction and modernization projects, including the determination, assignment and supervision of necessary labor. Provided managerial coordination with the appropriate government and private-sector contract representatives, as well as consultants, subcontractors, and second-tier subcontractors.

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- 2003 to 2005 **ELCON Enterprises, Inc./Elevator Control Services**, Upper Marlboro, MD
Construction/Modernization Manager
Responsible for the daily operations of the Construction and Modernization Department. Duties included management of contractual requirements pertaining to the engineering and procurement of materials for proposed construction and modernization projects, including the determination, assignment and supervision of necessary labor. Provided managerial coordination with the appropriate government and private-sector contract representatives, as well as consultants, subcontractors, and second-tier subcontractors.
- 2001 to 2002 **Thyssen-Krupp Elevator Company**, Baltimore and College Park, MD
Maintenance Supervisor
Responsible for the supervision and support of maintenance manpower for projects in Baltimore and Washington, DC. Duties involved managing maintenance contracts and customer relations with contract representatives for public and private office buildings, apartment residences, hospitals, colleges, and secured and non-secured government facilities. Also reviewed and processed employee time and service tickets for entry into the payroll accounting system.
- 1996 to 2001 **Maryland Elevator Service, Inc.**, Crofton, MD
Sales Manager, Project Manager
Responsible for reviewing government, private-sector, and consultant project specifications. Performed field surveys for and prepared bid packages for the acquisition of maintenance, service, construction, and modernization contracts. Duties involved managing contractual requirements pertaining to the engineering and procurement of materials for proposed construction and modernization projects. Provided managerial coordination with the appropriate government and private-sector contract representatives, as well as consultants, subcontractors, and second-tier subcontractors. Also coordinated submittals, schedules, and change orders with the appropriate contract representatives.
- 1995 to 1996 **Lerch-Bates Hospital Group, Inc.**, Baltimore, MD
Consultant, Inspector
Responsible for performing field surveys, traffic analyses, and inspections of vertical transportation and material handling equipment at public and private medical facilities and hospitals on a local and national basis. Provided written documentation evaluating performance of vertical transportation and material handling equipment. Also analyzed existing maintenance contract provider performance and developed recommendations for the replacement and/or modernization of existing equipment.

THE EXPERTS
Robson Forensic

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- 1994 to 1995 **D&M General Contracting**, Rockville, MD
Project Manager
Responsible for performing project management of an interim contract with the U.S. Department of State to support overseas elevator operations in embassies and consulates worldwide.
- 1992 to 1994 **Stephens Engineering**, Springfield, VA
Project Manager, Inspector, Technician
Responsible for performing inspections, maintenance, service, and limited modernizations on elevators located in U.S. embassies and consulates worldwide. Also evaluated existing maintenance contract provider performance (where applicable) and developed recommendations for the replacement and modernization of existing equipment. Coordinated procurement and shipment of materials required for performance of work using secured State Department facilities and procedures. Performed work in 50 U.S. facilities located in 29 countries worldwide.
- 1989 to 1992 **Millar Elevator Service Co.**, Hyattsville, MD
Field Mechanic
Part of a service team responsible for tear-down and replacement of existing elevator and escalator equipment. Assigned to a maintenance route with the responsibility for troubleshooting and maintaining a variety of manufacturers' equipment throughout the Washington metropolitan area. Completed the National Elevator Industry Education Program in September 1990.
- 1985 to 1989 **Warfield & Sanford, Inc.**, Washington, DC
Apprentice, Temporary Mechanic
Worked on major modernization projects throughout the Washington metropolitan area. Began the National Elevator Industry Education Program in September 1986.

PROFESSIONAL CREDENTIALS

Certified Elevator Inspector, - ASME A17.1 Q.E.I.-1 - No.879 (1992) / C-4338 (2009)
Certified Mechanic, National Elevator Industry Educational Program, 1990 (No exp. date)
Licensed Elevator Inspector – Florida

PROFESSIONAL MEMBERSHIPS

National Association of Elevator Safety Authorities
American Society of Mechanical Engineers
Secured Workers Access Consortium
International Union of Elevator Constructors (1985-2009)

TRAINING

NAESA 2021 Code Update Seminar

- A17.1 2019 Highlights
- Alternative Testing, Reading the Reports, and Other Concerns
- State of Wisconsin Updates
- Need to Know about Two Way Communication in ASME Elevator Safety Code Updates
- ASME A17.1-2016 8.6; 8.6.1-8.6.7 Maintenance and Testing Documentation Requirements
- ANSI A117.1 to LULA and Residential
- Inspection, Testing, and Code Requirements for MRLs
- Elevator Safety, Inspection Techniques, and Observing Deficiencies During Inspections
- Rack and Pinion Hoists. Elevators

NAESA 2020 Code Update Seminar

- QEI- 1 Standard for the Qualification of Elevator Inspectors 2018 Code Update
- ASME A17.6 Standard for Elevator Suspension, Compensation, and Governor Systems 2017 Code Update
- ASME A17.3 Safety Code for Existing Elevators and Escalators 2017 Code Update
- NFPA 13 Standard for the Installation of Sprinkler Systems 2019 Code Update
- NFPA 72 National Fire Alarm and Signaling 2019 Code Update
- ASME A17.2 Guide for Inspection of Elevators, Escalators, and Moving Walks 2017 Code Updates
- International Building Code 2018 Update
- ASME A17.1- 8.7 Alterations 2010-2016
- ASME A17.2 2017 Hydraulic Inspection and Tests
- Safety, 102 “How are we doing”

NAESA 2019 Code Update Seminar

- Elevator Industry Field Employees’ Safety Handbook – Chapter 18 Job Hazard Assessment
- ASME A17.1/CSA B44 2016 – Safety Code for Elevators and Escalators
- ANSI A117.1 2009/2017 – Accessible and Usable Buildings and Facilities
- ASME A17.1 – 8.7 Alterations
- ASME A18.1 2017 – Safety Standard for Platform Lifts and Stairway Chairlifts

NAESA 2018 Code Update Seminar

- Safety Code for Elevators and Escalators
- Safety Standard for Platform Lifts and Stairway Chairlifts
- Maintenance, Repair, Replacement and Testing
- Safety Requirements for Personnel Hoists and Employee elevators on Construction/Demolition Sites
- National Electric Code

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NAESA International Wisconsin Elevator Symposium, 2017

- National Electrical Code and 17.1 Relationship
- Unintended Movement and Uncontrolled Ascent
- Wisconsin Code Updates
- Inspection Methods
- Elevator Safety and “You the Inspector”
- A17.2 Recommended Inspection and Procedures Updates
- How to Use the Inspection Handbook
- Review of Fatality Prevention
- Code Cases/Submitting Interpretations
- A17.1 2016 Code Updates

National Elevator Industry Safety Summit, National Association of Elevator Safety Authorities /
The Elevator Escalator Safety Fund, 2017

- Changing Behavior for Fatality Prevention
- Machine Room Guarding
- LIFTINSTITUTE – An Integral Safety Vision
- DRAKA - Risk Assessment

NAESA International – Florida Code Update Seminar, 2016

- Elevator Industry Field Employee’s Safety Handbook – 2015
- ASME A17.1–2007 / CSA B44-07 Safety Code for Elevators & Escalators
- ASME A17.1a–2008 / CSA B44a-08 Addenda & ASME A17.1b– 2009 / CSA B44b Addenda
- ASME A17.1–2013 / CSA B44-13 Safety Code for Elevators and Escalators
- ASME A17.2–2014 Guide for the Inspection of Elevators, Escalators and Moving Walks
- ASME A17.3–1996 thru 2011 Safety Code for Existing Elevators and Escalators
- ASME A18.1–2008 thru 2011 Safety Standard for Platform Lifts and Stairway Chairlifts
- NEC 2011 National Electrical Code (NFPA 70)
- Florida Statutes and Florida Building Code Changes

National Association of Elevator Contractors – Spring Education Conference 2016

- Fiber Optic Cables – Overview Application & Hands On Review
- Door Re-Opening Code & Safety Training
- Moisture Means Death for Hoist Ropes
- ASME-A17.4 – Guide for Emergency Personnel

NAESA International – Florida Code Update Seminar / Florida Course #0000023, 2015

- Elevator Industry Field Employee’s Safety Handbook – 2010 & 2011
- ASME A17.1 – 2013 / CSA B44-13 Safety Code for Elevators and Escalators
- ASME A17.2 – 2012 Guide for Inspection of Elevators, Escalators and Moving Walks
- ASME A17.3 – 2011 Safety Code for Existing Elevators, Escalators and Moving Walks
- ASME A17.6 – 2010 Standard for Elevator Suspension, Compensation, and Governor Systems
- ASME A17.1 – CSA B44.7 Performance-Based Code for Elevators and Escalators

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- ASME QEI-1 – 2013 Standard for the Qualification of Elevator Inspectors
 - ASSE A10.4 – 2007 Safety Requirements for Personnel Hoists and Employee Elevators
 - NFPA 70 – 2014 National Electrical Code
 - IBC 2012 International Building Code
 - Elevator Fire Service Operations or Step Skirt Performance Index Video
- NAESA International – 18th Annual Elevator U Educational Conference 2015
- Improving Maintenance Through Inspection
 - Elevator Craft Labor Staff Augmentation
 - Review of Elevator Industry Field Employee’s Safety Handbook
 - Improving Performance on Hydraulic Elevators
 - State of the Elevator Industry
 - ASME A17.4 – 2015 Guide for Emergency Personnel – Key Changes
 - Hydraulic Telescopic Jack Applications & Service
 - In House vs. Contract Maintenance Round Table / Cracker Barrel Session
 - OEM Maintenance & Installation Contracts
 - Cab Modernizations / New Shell vs Interior Only
 - Elevator Inspections & AHJ’s / Chief of Elevator Section State of Ohio
 - Wire Rope Maintenance
- NAESA International – Wisconsin Elevator Symposium 2014
- Changes from the 2005 – 2011 A18.1 Standard
 - Acceptance Testing & Annual Testing Changes to A17.1 Category Testing
 - A17.1 Changes from 2007-2014
 - Elevators & the National Electrical Code Article 620
 - Elevator Door Operations: Myth & Reality
 - Safety in the Workplace
 - Alternative Testing
 - Important Changes to WI Code SPS 318
- Pennsylvania Society of Professional Engineers, February 2014
- Forensic Engineering
 - Analyzing Accidents / Legal Implications / Public Safety
- NAESA International – Eastern Region Fall Workshop 2013
- ASME – How to Perform Elevator Inspections Using ASME A17.2, 2011 (Continuing Education)
- ASME – Use of Elevators in Emergencies Symposium, 2011
- OSHA 500 Outreach Instructor Recertification, U.S. Department of Labor, 2008
- OSHA 500 Outreach Instructor Training, U.S. Department of Labor, 2002
- Government Contracts Management Workshop (FAR), George Washington University, 1998
- Multiple Agency Secured Facility Contracting Procedures Workshop, U.S. Department of State, 1993