



Paul D. Thompson

Management Systems • Engineering Economics
17035 NE 28th Place, Bellevue, WA 98008
425-224-5443; pdt@pdth.com

Paul D. Thompson is an internationally recognized expert in management systems and engineering economics, including research, design, and development of analytical processes for managing transportation assets. Mr. Thompson is one of the world's leading authorities on life-cycle planning of infrastructure investments, including optimal funding and timing to keep roads and bridges in service at minimum cost. He has served as a consultant in this area to transportation agencies at the local, state, and national levels worldwide since 1980, and has authored many of the major AASHTO and international guidebooks on asset management implementation.

Mr. Thompson was a co-author of both editions of the AASHTO Guide for Transportation Asset Management (TAM), and has participated in the writing of 6 state risk-based TAM Plans. For the Alaska Department of Transportation and Public Facilities, he prepared a Synthesis and Work Plan for Asset Management Implementation which addresses all of the infrastructure assets owned by the department, including roads, bridges, transit, airports, ferries, buildings, and equipment. In projects for Alaska, Colorado, Montana, Western Federal Lands, and NCHRP 24-35, he has helped develop the framework for the new field of geotechnical asset management, addressing roadway embankments, unstable slopes, retaining walls, material sites, and rockfall protection systems where risk is a primary concern. He was a co-author of Florida DOT's recent comprehensive study of bridge-related risk in asset management, and of Minnesota's Bridge Risk and Improvement Management System.

Mr. Thompson has been Manager and principal architect of the multi-contract implementation program for Pontis (now AASHTOWare Bridge Management – BrM). He has provided customization and implementation support services in connection with Pontis to more than half of the states and several other countries, and prepared the design of the upcoming release 5.2 with innovative, completely updated analytical tools. He has designed and/or managed development of more than a dozen other bridge, pavement, and transit management systems worldwide.

| | |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Asset Management | Consultant, multi-objective cross-asset TAM Plan implementation methodology for FHWA Consultant, project prioritization methodology for California Department of Transportation Consultant, Minnesota, Nevada, Ohio, Texas, Louisiana, Alabama TAM Plans Consultant, Alaska Geotechnical Asset Management Plan – retaining walls, slopes, material sites Consultant, Montana DOT asset management concepts for rock slopes Consultant, benefit/cost framework for Federal Land Management Agencies for unstable slopes Consultant, Alaska DOT&PF Asset Management Gap Analysis, Synthesis, and Work Plan Co-author, NCHRP 24-35, Asset Management for Flexible Rockfall Protection Systems Consultant, Colorado DOT retaining wall asset management plan Consultant, development of benefit/cost prioritization metrics for Western Federal Lands Consultant, TAM process analysis for the Washington State Legislature Co-author, NCHRP 20-24(11), Asset Management Guidelines for Transportation Agencies Co-author, NCHRP 08-69, Asset Management Volume 2: Focus on Implementation Consultant, NCHRP 20-74A, Service Levels for the Interstate Highway System Consultant, NCHRP 20-74, Asset Management Plan for the Interstate Highway System Co-author, NCHRP 08-71, Life Expectancies of Highway Assets Final report author, FHWA Management System Integration Committee Developer, Colorado DOT inspection system for sign, signal, and high-mast light pole structures Technical consultant, Asset Management Guidelines, Transport Association of Canada Consultant, FHWA peer review panels for national infrastructure needs analysis for the US Congress Technical consultant, NCHRP 20-64 - TransXML Co-author, NCHRP 363, Role of Highway Maintenance in Integrated Management Systems Project manager, Finland integrated bridge, pavement, and maintenance management systems Technical consultant, statewide asset management framework for Michigan Technical consultant, Michigan, Delaware, Puerto Rico, Nova Scotia integrated management systems Technical consultant, asset costing and performance measures for New Jersey Transit Corporation and Massachusetts Bay Transportation Authority |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

| | |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bridge Management | <p>NCHRP Project 20-07(378) – Assessing risk in bridge management systems Management methodology for Big Bridges – pooled fund study led by Michigan DOT Design and modeling for FHWA’s National Bridge Investment Analysis System (NBIAS) Transit bridge deterioration and cost modeling for the Massachusetts Bay Transportation Authority Comprehensive risk analysis for bridge management for Florida DOT Needs analysis, British Columbia Bridge Management System Updating of the NCHRP Report 483 Bridge Life Cycle Cost Analysis model for FHWA Project management, design and development of the Pontis Bridge Management System for AASHTO and the US Federal Highway Administration Design of risk-based bridge management tools for Minnesota and Pennsylvania DOTs Development of deterioration, cost models, user cost, and life cycle cost tools for Florida DOT Development of bridge deterioration and action effectiveness models for Virginia DOT Design of the Québec and Ontario bridge management systems Technical consultant for the Triborough Bridge & Tunnel Authority (NY) Bridge Management System Design of the Massachusetts Bay Transportation Authority (Boston) Bridge Management System BMS Design and Development assistance, Switzerland, Sweden, Finland, Manitoba, Ohio, Alabama Advisor, FHWA Bridge Management Systems Laboratory and Long-Term Bridge Program Customization of the Florida Project Level Analysis Tool for Maine DOT Development of Pontis implementation plan for New Jersey DOT FHWA-sponsored Pontis workshops for the states of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, District of Columbia, Virginia, Georgia, Florida, Tennessee, Ohio, Indiana, Illinois, Michigan, Louisiana, Arkansas, Missouri, Iowa, Minnesota, Nebraska, Kansas, Oklahoma, Texas, Colorado, Wyoming, Montana, Idaho, Utah, Arizona, California, Oregon, Washington, and Hawaii Locally-sponsored Pontis workshops and training courses for Rhode Island, Illinois, Ohio, Puerto Rico, Switzerland, Hungary, United Kingdom, Spain, Australia, Kuwait Course designer and lead instructor for NHI Bridge Management Training Courses for South Carolina, Arizona, Washington, Louisiana, Oklahoma, Florida, Texas, Tennessee, and Michigan Technical support of Pontis implementation for the City of Denver and the States of Maine, Florida, Tennessee, Ohio, Illinois, Michigan, Louisiana, Iowa, and Colorado Technical support of Stantec Bridge Management System implementation for the Provinces of Ontario, British Columbia, Saskatchewan, Québec, and Nova Scotia and the City of Hamilton Consultant, NCHRP 14-15, Development of a national maintenance database for bridges Co-principal investigator, NCHRP 12-67, Multi-Objective Optimization for BMS Co-author, AASHTO Guidelines for Bridge Management Systems Co-author, NCHRP Synthesis 227, Collecting and Managing Cost Data for BMS Consultant, NCHRP 20-07, Bridge Performance Measures Consultant, NCHRP 12-50, Bridge Software Validation Guidelines and Examples Consultant, NCHRP 12-51, Effect of Truck Weight on Bridge Network Costs</p> |
| Committees | <p>Central Puget Sound Regional Transit Authority (Sound Transit) Citizen Oversight Panel Transportation Research Board Committees on Asset Management and Bridge Management Chair, Transportation Research Board Subcommittee on Bridge Life Cycle Cost Analysis SHRP2 Reliability Technical Expert Task Group on Statistics, Models and Methods Editorial Board, Structures and Infrastructure Engineering Journal International Association for Bridge Maintenance and Safety, Bridge Management Committee</p> |
| Education | <p>C.S.S., Administration and Management, Harvard University Extension (1987) M.S., Transportation, Massachusetts Institute of Technology (1982) B.S., Civil Engineering, University of Washington (1980)</p> |
| Formerly | <p>Principal, Cambridge Systematics, Inc. Research Assistant, Massachusetts Institute of Technology Planning and Finance Depts., Tri-County Metropolitan Transportation District of Oregon (Tri-Met) Assistant Surveyor, City of Longview, Washington</p> |
| More info | <p>For further information and a selection of useful reports, see www.pdth.com.</p> |