

M. John Vickerman, AIA, PE

President

Vickerman & Associates, LLC

Principal Architect, Civil Engineer

Port and Intermodal Master Planning and Design

Professional State Registrations (21 States):

Registered Architect: AL, CA, CT, DC, FL, HI, IL, IN, MA, MD, ME, MS, NH, NC, NJ, NY, PA, RI, TX, VA

Professional Engineer: CA, FL, MD, VA, WA

National Professional Registrations:

NCARB No. 32456, 1985 (Registered Architect)

Education:

M.S., Structural Engineering & Structural Mechanics
University of California at Berkeley, California 1976

B.S., Architectural Engineering

California Polytechnic State University, 1971

Years of Transportation Experience: 35 years

Current Professional Affiliations & Memberships:

- American Association of Port Authorities (AAPA)
- American Institute of Architects (AIA)
- Transportation Research Board/National Research Council/National Academy of Science
- Editorial Advisory Board of the Great Lakes/Seaway Review
- United States Maritime Resource Center, Inc. (USMRC), Maritime Simulation Institute (MSI) Board of Directors, Newport, RI

Employment History:

US Navy Civil Engineer Corps.	(1971-1975)
Jordan, Casper, Woodman, Dobson	(1976-1980)
Vickerman/Zachary/Miller, Inc.	(1980-1995)
TranSystems Corporation	(1995-2008)
Vickerman & Associates, LLC	(2008-Present)

PROFESSIONAL BIOGRAPHY & RELEVANT PROJECT EXPERIENCE:

John Vickerman is the President of Vickerman & Associates, LLC a professional services consulting firm specializing in the planning and design of port, intermodal and freight logistics facilities. John's maritime and intermodal practice has become internationally known for providing innovative solutions to the many operational, planning and design issues confronting the marine and intermodal transportation industry. Much of John's work focuses on assisting ports, railroads, and shipping companies to recognize and prepare for future market and technological changes.

As a specialist in intermodal and maritime terminal design, John has worked on major port projects throughout the United States and the world for more than 35 years. **Sixty-seven of the 90 North American deep-water general cargo ports have benefited from his personal strategic master planning and design capabilities.** His international practice includes work for many of the Canadian Ports, the Ports of Rotterdam, Hong Kong, Mainland China, Melbourne, Australia, Pecem, Brazil, Puerto Rico, the Panama Canal Authority, the intermodal freight analysis for Eurotunnel between England and France, and emerging new transshipment port projects in Indonesia.

Mr. Vickerman completed three terms as Chairperson for the Intermodal Freight Terminal Design & Operations Committee under the purview of the Transportation Research Board (TRB)/National Research Council (NRC)/National Academy of Science (NAS) and served on many national Policy Committees for the TRB. John has served on the Freight Advisory Roundtable Board and as an Advisory Board Member to the United States Merchant Marine Academy, Global Maritime & Transportation School. He currently is a member of the Editorial Advisory Board of the Great Lakes/Seaway Review and serves as a Board of Director Member of the United States Maritime Research Center (USMRC) - Maritime Simulation Institute (MSI) in Newport, Rhode Island.

MARITIME, PORT, INTERMODAL, AND LOGISTICS PLANNING AND DESIGN PROJECT EXPERIENCE:

The following port and intermodal projects are contracts accomplished by [Vickerman & Associates, LLC](#) within the last five years with John Vickerman as the Principal-In-Charge of the project. Specific project references and expanded descriptions are available upon request.

SLI Logistics Park, Rodman, Panama - Panama Canal - Logistics Consultant Services. Vickerman & Associates was selected as the prime consultant in January 2013 to provide logistics analysis and distribution center conceptual planning for a new inland port logistics center serving the new PSA Panama International Terminal (PPIT) located at the entrance of the Panama Canal, on the Pacific side at the former US Rodman Naval Base. PPIT is a new port terminal built at the Pacific western-side entrance of the canal by a Singapore government-owned company. The PPIT project has completed its first phase of construction with a state-of-the-art 300 meters length container berth equipped with 3 Post Panamax quay cranes and 6 RTGs and began operations in December 2010. Vickerman & Associates will survey existing logistics services in the Canal Zone and develop design requirements for the new logistics park.

Iowa Department of Transportation (DOT) Lock and Dam Modernization and Reconnaissance Study. Vickerman & Associates was retained in 2012 by the Iowa DOT and their project general consultant, HDR Engineering Inc. to provide a Upper Mississippi River commercial market analysis including identification of key shipping and logistics market drivers, future shipping market forecast assessment, and recommended Inland Waterway development strategies and logistics options. The benefits of an improved lock and dam system were described in the study with quantitative evidence compiled illustrating the important economic value of continuing to use the waterway system for both the regional and national economies. The study answered the question: What Can Iowa Do to Stop the Deterioration of the System.

Commonwealth of Virginia - Joint Legislative Audit and Review Commission (JLARC) - Special Report: Review of Recent Reports on the Virginia Port Authority's Operations. Vickerman & Associates was retained in December 2012 to provide support to the JLARC and to convey information from the maritime port industry perspective regarding (1) the position of Virginia Port Authority (VPA) and Virginia International Terminals, Inc. (VIT) in the intermodal market; (2) potential for VPA/VIT market growth; (3) projected future volume of VPA/VIT; (4) recent volume declines experienced by VPA/VIT and recovery from them; (5) validity of cost comparisons of VPA/VIT to other ports; (6) extent to which VPA/VIT institutional structures impede sales and marketing; and (7) the operational reputation of VIT in the shipping community.

Virginia International Terminals (VIT), Virginia Port Authority (VPA) - Port Terminal Operations Evaluation and Due Diligence Study for Maersk Unsolicited Proposal to the Virginia Commonwealth. Vickerman & Associates was retained in July 2012 to provide the VIT with an evaluation of all four of VIT's operational port terminals. The study was to focus on evaluating terminal productivity, operational safety, VIT terminal revenue and expenses, port competition evaluation and prepare a 20 year long range cargo volume forecast for all VIT assets and to prepare due diligence analysis support to VIT in consideration of the April 2012 unsolicited proposal from Maersk/APM Terminals to purchase all of the Port of Virginia's port terminal operations for \$4 billion over a 48 year period using the State's Public-Private Transportation Act of 1995.

Port of Providence, RI (ProvPort) - Two Mobile Harbor Crane Procurement Services. Vickerman & Associates was commissioned in July 2012 by ProvPort and the Rhode Island Economic Development Corporation (RIEDC) to provide professional advisory services for technical expert consulting reviewing the RFP procurement process, crane technical specifications and contract proceedings for the acquisition of two mobile harbor cranes and the associated design and construction of two new barges for the Port. The mobile harbor crane acquisition is a component of ProvPort's Tiger II grant award through the US Department of Transportation (USDOT), Maritime Administration (MARAD).

Ohio Statewide Freight Plan - Ohio River Terminal Assessment and River Terminal Strategic Planning. In early 2012 Parson Brinkerhoff commissioned Vickerman & Associates to provide the PB Team with maritime and intermodal transportation consulting services in support of Parsons Brinckerhoff, Inc.'s (PB) contract with the Ohio Department of Transportation to perform a statewide freight study. Vickerman & Associates was responsible for analysis and strategic planning for all Ohio River Ports bordering the State of Ohio and in particular the following Ohio River Terminals: Columbiana, Wellsville, and South Point River Terminals. Vickerman & Associates conducted in-depth interviews with all Ohio River Terminals and provided a needs assessment and strategic project identification for critical Ohio River terminal infrastructure.

San Diego Unified Port District (SDUPD) Expert Witness Services - Port Terminal Operations Evaluation. Vickerman & Associates was retained in 2012 as an expert witness by the firm Butz Dunn & DeSantis (BD&D), in connection with BD&D's representation of SDUPD in civil litigation action before the Superior Court of the State of California for the County of San Diego referred to as "SDUPD versus San Diego Refrigerated Services Inc. The consulting services provided professional port terminal evaluation services including analysis of port terminal layout, configuration and operational related topics for the Port of San Diego - Tenth Avenue Marine Terminal (TAMT). The focus of this marine terminal evaluation study is the western portion of the TAMT encompassing both the SDRS and the Dole Food Company Inc. - Fresh Fruit Container Terminal, leaseholds and associated terminal operations.

Florida Inland Port (FIP) - Intermodal Logistics Center - St. Lucie County, Florida. Vickerman & Associates was retained in 2011 by Florida Inland Port, LLC (formerly Treasure Coast Intermodal Campus, TCIC) and their project general consultant, HDR Engineering Inc., to provide a strategic master plan and intermodal market and supply chain management assessment for a 4,000 acre, ultimately 29 million sq. ft., Inland Port - Intermodal Container Transfer Facility (ICTF) - Logistics Center serving the South Florida freight market. Located in southwest St. Lucie County, the FIP project will be developed into a major freight logistics hub over the next 30 to 35 years. The FIP will create an entirely new industrial model for Florida, ultimately providing a seamless connection to direct on-dock rail service at Florida's key seaports, along with easy access to all major highways. The FIP warehousing and distribution center will provide a full service logistics environment accommodating a variety of manufacturing and industrial uses.

2012 Ohio Statewide Freight Plan - River Port and Marine Terminals. Vickerman & Associates was retained in February 2012 to provide port, maritime and river terminal consulting services in support of Parsons Brinckerhoff's contract with the Ohio Department of Transportation to perform a Statewide Freight Study and analysis to understand how Ohio's freight transport infrastructure is being utilized. The study will identify and analyze modal freight volumes, commodities, and origins/destinations. Vickerman & Associates provided strategic port terminal evaluations and intermodal market and supply chain evaluations for all of the Ohio State River Terminals.

Wingspan International Inland Port Logistics Center, Port of Moin, Republic of Costa Rica. Vickerman & Associates was retained in 2011 by Wingspan International, LLC to provide a strategic master plan and intermodal market assessment for the new 200 acre Inland Port - Intermodal Container Transfer Facility (ICTF) - Logistics Center serving the Port of Limón/Moin, on the Caribbean coast of Costa Rica. The Inland Port Logistics and Transshipment Center will serve a variety of customers including potentially the new newly announced 33-year concession by APM Terminals, Maersk Line, a \$992 million post panamax six berth new container port for the new Moin Container Terminal (TCM) in Costa Rica. The Puerto Limon/Moin port complex currently handles approximately 80 percent of Costa Rica's international fresh fruit trade.

Port of Galveston Expert Witness Services - Port Facilities Evaluation. Vickerman & Associates was retained in March 2012 as an expert witness by the firm Greer, Herz & Adams LLP in connection with representation of the Port of Galveston (POG) before the 212th Judicial District Court of Galveston County, Texas referred to as "Cause No. 11-CV-1330 - POG/Lexington Case" regarding contested Hurricane IKE storm-induced port facility damage. The focus of this port facilities evaluation study was an evaluation of the Port's damage sustained as a result of Hurricane IKE and a review and evaluation of the various storm damage assessments related thereto.

Port of Erie - Erie-Western Pennsylvania Port Authority - Freight Shipping and Master Development Plan. In early 2010 Martin Associates (John C. Martin LLC) and Vickerman & Associates agreed to team and work together for the Port of Erie on the Freight Shipping and Master Development Plan for the Port of Erie. Vickerman & Associates was retained as a port and intermodal rail facilities expert for the project which involved evaluating all port operations, profiling existing port operations, developing a detailed statement of probable cost for expansion/development of the infrastructure necessary for a modern freight terminal facility based on the team's market assessment. A specific emphasis was placed on assessing the potential for the development of a container feeder service terminal and opportunities afforded for Heavy Lift and project specialty cargo.

Port of Miami On-Dock Intermodal Rail Terminal, Florida East Coast Railway (FEC). Vickerman & Associates was retained in 2010 as one of the General Consultants to the FEC Railway CEO and expert intermodal terminal advisor to the FEC Railway, Rail America and Fortress Investment Group for the planning, design and operation of the new Port of Miami On-Dock Intermodal Rail Terminal. The \$52 million program included upgrading the Port Bascule Bridge and improvements to 4.5 miles of rail access to the Port from the FEC Hialeah Inland Port in Miami.

Development of a Florida Statewide Intermodal Development Strategy for Florida East Coast Railway (FEC). Vickerman & Associates was retained in 2010 as one of the General Consultants and intermodal terminal advisors to the FEC Railway, Rail America and Fortress Investment Group for the planning, design and operation of a statewide express intermodal service from Port of Miami and Port Everglades to Jacksonville, FL. The project also included new logistics distribution center planning and design of new central Florida Intermodal rail and distribution center projects.

Port Everglades On-Dock Intermodal Rail Terminal, Florida East Coast Railway (FEC). Vickerman & Associates was retained in 2010 as one of the General Consultants to the FEC Railway CEO and expert intermodal terminal advisor to the FEC Railway, Rail America and Fortress Investment Group for the planning, design and operation of the new Port Everglades On-Dock Intermodal Rail Terminal at Southport. The project includes a new on-dock intermodal rail terminal complex with automated bridge crane design capabilities handling both international and domestic intermodal rail volume.

Port of Longview, Washington - Port and Intermodal Strategic Port Master Plan. Vickerman & Associates was retained in early 2010 as the Port Master Plan Consultant for preparation of the Port of Longview Port and Intermodal Master Plan by HDR Engineering Inc., the prime consultant. The Port Master Plan provided new business opportunities and strategic options for increasing port capacity using the latest sustainable terminal concepts. The Port of Longview is developing the first major Export Grain Terminal in the United States at a cost of over \$200 million with an annual capacity of 4.74 million bushels or 130,000 metric tons of corn, soybeans and wheat.

Plaquemines Parish Louisiana - Comprehensive Port and Strategic Master Plan. Vickerman & Associates was retained in 2009 as a port and intermodal expert sub-consultant for preparation of the Plaquemines Parish Comprehensive Strategic Port and Intermodal Terminal Master Plan by Trident Holdings, a Canadian Port Developer, and prime consultant for the Plaquemines Parish Port Strategic Plan. The plan included two new port developments on the East Bank and one on the West Bank of the Mississippi River. The West Bank port development included an on-dock intermodal rail terminal and adjacent logistics distribution park. The Master Plan provided a new Public-Private-Partnership (PPP) strategy and positioned the Port in establishing Louisiana as a major logistics distribution leader in national and Gulf Coast maritime and intermodal markets.

Erie Inland Port (EIP) Logistics Center Development for the Economic Development Corporation of Erie County (EDCEC), Erie, Pennsylvania. Vickerman & Associates was selected in early 2009 as the General Consultant and expert intermodal advisor on a major new freight intermodal logistics center for Erie County. Prepared a truly transformational sustainable state-of-the-art intermodal rail inland port and logistics distribution center concept incorporating two Lake Erie Ports integrated into a state-of-the-art multimodal logistics hub serving multiple Class I railroads. The EIP will eventually become a 1,000 acre integrated intermodal terminal and distribution center logistics park with more than 7 million sq. ft. of modern distribution center infrastructure.

Maher Melford International Terminals Inc., Guysborough, Nova Scotia. For the last six years John Vickerman has been commissioned as the General Consultant for the development planning for a state-of-the-art fully automated three berth container port and adjacent CN intermodal rail terminal with 1500 acres of adjacent integrated logistics Park development. As currently envisioned, Maher Melford will deploy an advanced automated container terminal concept developed by Hamburg Port Consulting GmbH (HPC). The terminal operating system is a high grade form of container automation. In container and intermodal terminal will use advanced horizontal transport system of Automated Guided Vehicles (AGV) in combination with Rail Mounted Gantry Cranes (RMG) with quay parallel orientation in the Container Yard (CY). When successfully deployed, the Maher Melford terminal would be the first container terminal in North America to deploy AGVs.

Great Lakes Commission (GLC) Chicago Area Waterway System (CAWS) – “Envisioning a Chicago Area Waterway System for the 21st Century” Inland Waterway Planning. Vickerman & Associates was retained in early 2011 as the Port and Intermodal Rail Terminal sub-consultant expert on the HDR Engineering Inc. team, the prime consultant for the Great Lakes Commission/Great Lakes & Saint Lawrence Cities Initiative for the “Envisioning the Chicago Area Waterway System for the 21st Century Project”. The visibility and migration of the Asian Carp movement up the Illinois River and the potential catastrophic impacts on the Great Lakes fishing industry has resulted in the GLC Commissioning a \$2 million effort for the ecological separation of the CAWS from various Aquatic Invasive Species (AIS), most notably the Asian Carp. This effort will involve improving Chicago area transportation systems and the potential for developing new port and intermodal rail terminals at separation dam sites along multiple rivers and waterways in the CAWS.

Shipyards Creek Associates LLC (SCA) - Port of Charleston - Macalloy Multimodal Logistics Center, Charleston, SC. For the last four years, the Principal-in-Charge and General Consultant for development planning and design of the 155 acre Macalloy Site CSX Intermodal Terminal adjacent to the SCSPA Three Berth Navy Base Container Terminal. SCA, in a strategic partnership with CSX Railroad, will develop the Macalloy Intermodal Terminal at Shipyards Creek in the Port of Charleston, into a dominant North American East Coast container gateway and a major distribution logistics load center. A privately developed, environmentally sustainable, near-dock intermodal rail terminal adjacent to and directly linked to the new SCSPA Navy Base Container Terminal Development will no doubt change the port and intermodal competitive landscape in the US Southeast.

Shipyards Creek Associates LLC (SCA) - Port of Charleston – Laurel Island Multimodal Logistics Center, Charleston, SC. For the last four years, the Principal-in-Charge and General Consultant for development planning and design of the 240 acre Laurel Island Intermodal Terminal adjacent to the SCSPA Columbus Street Container Terminal. SCA will develop the Laurel Island Intermodal Terminal into a major North American East Coast container gateway and distribution logistics load center. This project is a privately developed, environmentally sustainable, near-dock intermodal rail terminal adjacent to and directly linked to the SCSPA Columbus Street Container Terminal.

Port and Intermodal Security Training for FBI, TSA and NCIS – McMunn Associates. Since July 2008 McMunn Associates Inc. (MAI) has retained Vickerman & Associates as Principal Instructor and Subject Matter Expertise (SME) in support of MAI's Federal Training Courses on Commercial Maritime Shipping and Port Operations (CMSPO) and Maritime Domain Awareness (MDA) program. John Vickerman has been the Principal instructor on day long training courses with the United States Navy (USN), US Transportation Security Administration (TSA), US Naval Criminal Investigative Service (NCIS), US National Maritime Intelligence Center (NMIC) and the US Federal Bureau of Investigation (FBI) in the area of port security, operations and intermodal transportation systems.

Galveston Historic Downtown Seaport Master Plan, Port of Galveston, Texas. Vickerman & Associates was retained in 2009 by H&A Architects & Engineers (Formerly CMSS Architects, PC) as the team's port and maritime planning expert sub-consultant. This comprehensive seaport waterfront master plan was completed in early 2011. The goal of the master plan was to generate a new vision of a more complex, modern economy for the City of Galveston downtown redevelopment effort with particular focus on the “East End” Port of Galveston maritime seaport terminals and operations. The project included consideration for the enhancement and expansion of the Port of Galveston's current cruise terminal operations and the potential of developing new “World Class” cruise terminal linked directly to the historic urban seaport.

Tembec General Partnership and Tembec Industries Inc. Strategic Shipping and Logistics Assessment Study. Vickerman & Associates was commissioned by Tembec Industries in October 2010 to prepare a strategic shipping and logistics evaluation and analysis study of Tembec's current pulp shipment operations from Canada to North Asia (mainly China). Tembec is one of the largest North American wood pulp shippers. Currently Tembec ships approximately 30,000 metric tons monthly from Vancouver, BC and approximately 30,000 metric tons monthly from Eastern Canada via Port Authority of NY/NJ (Port Newark & Port Elizabeth Terminals only). This Strategic Shipping and Logistics Assessment Study included forecasting an evaluation of maritime logistical global shipping trends within the next 5 years and also include strategic recommendations for Tembec to best position and deploy their shipping operations in light of emerging new shipping and logistics trends.

Port Authority of New York & New Jersey Federal Maritime Commission Expert Witness Services. Vickerman & Associates was retained in 2008 and again in 2011 as an expert witness by the firm Weil, Gotshal & Manges LLP., as the chief legal counsel to the Port Authority of New York & New Jersey (PANY/NJ) for the legal defense in the Federal Maritime Commission (FMC) Case No. (08-03). The case rests on a complaint filed by Maher terminals Inc. that alleges the PANY/NJ granted preferential lease terms to a competitor. Vickerman & Associates was retained to provide Defense attorney's with expertise in container and intermodal rail terminal analysis and expert witness revaluation services.

Sparrows Point Automobile Terminal Development, Baltimore, Maryland. Vickerman & Associates was retained in 2008 as the Principal-in-Charge of the planning and design of the Cargo Ventures LLC Sparrows Point Automobile Terminal development.

Port Alberta Inland Port and Logistics Park, Edmonton, Alberta. Vickerman & Associates was retained in 2008 as an intermodal terminal expert sub-consultant by InterVISTAS Consulting Inc. for the development planning of the Port Alberta Inland Port and Integrated Logistics Park for the City of Edmonton Alberta. The work scope included market assessment and conceptual facilities layouts.

Louisiana International Gulf Transfer Terminal, Southwest Passage, Metairie, Louisiana. Vickerman & Associates was retained in 2009 by the State of Louisiana and continues as a port and intermodal expert advisor to the Louisiana International Deep Water Gulf Transfer Terminal Authority for general consulting and advisory services regarding development of a world class container transfer terminal at the mouth of the Mississippi River, for transferring containers from ocean-going vessels to barge and coastal feeder vessels.

Port Strategic Master Development Plan Update 2009 - Port of Port Arthur, Texas. Vickerman & Associates was retained in 2009 by the Port and Tetra Tech Corporation as the project port and intermodal terminal sub consultant expert to Tetra Tech as the prime consultant on the Port of Port Arthur (POPA) 2009 Master Development Plan Update. This \$625,000 Port Master Plan Update Project effort included a comprehensive the determination of the best use development of new 500 acre land acquisition. Major elements of this project included data collection; facility assessment, analysis of existing port operations, a Master Port Development Plan which developed alternative scenarios and solutions, assessed potential future business risks, and new business opportunities. The Team also developed a phased Capital Development Improvement Plan and proposed specific scenarios for increases in the operational efficiency and capacity of the facilities to enable it to handle anticipated business growth.

Port of Greater Cincinnati Development Authority General Consultants Advisory Services: Vickerman & Associates was retained in 2010 to provide general consulting and advisory services to the Port of Greater Cincinnati Development Authority (PGCDA) for PGCDA projects involving rail and intermodal improvements in the Mill Creek Corridor and planning related to waterfront industrial development along the Ohio River.

Project Experience Explanatory Note: John Vickerman was a Founding Principal for both Vickerman/Zachary/Miller, Inc. (1980) and TranSystems Corporation (1995). Since 1980, John Vickerman has served as a project Principal-In-Charge or Project Manager, with the project team for the following major port and intermodal projects which highlight his port and intermodal experience and capabilities. The following projects are only a partial listing of Mr. Vickerman's maritime and intermodal industry experience.

Ports of Los Angeles and Long Beach 2020 Master Plan, Los Angeles, California. Project Manager for the "*Cargo-Handling, Operations, Facilities and Infrastructure Requirements Study (OFI)*" sometimes referred to as the **POLA/POLB 2020 Strategic Master Plan**. This strategic port master plan involved a \$5.3 billion expansion of the San Pedro Bay Harbor with 38 new port and intermodal terminals. The Master Plan determined facility requirements and water use plans to the year 2020, for the Port of Los Angeles and the Port Long Beach including comprehensive port terminal and intermodal terminal development.

Naval Station Support Function Consolidation Study, Long Beach, California. Principal-in-Charge for the Port of Long Beach Master Plan for consolidation and relocation of Naval Station support functions.

Intermodal Transfer Facility Design, Philadelphia, Pennsylvania. Principal-in-Charge of planning and design for AmeriPort, the 100-acre Regional Intermodal Transfer Facility (RITF), Delaware River Port Authority.

FastShip Feasibility Study, Philadelphia, Pennsylvania. Principal-in-charge of the FastShip Atlantic Terminal Plan Port Facilities Evaluation Study for the Delaware River Port Authority and FastShip Atlantic, Inc.

On-dock Intermodal Rail Facility Design and Construction, New York, New York. Principal-In-Charge of planning, design and construction management services for the \$8.5 million ExpressRail Intermodal Transfer Facility at the Port of New York and New Jersey.

Maersk/Sea-Land Conceptual On-dock Intermodal Facility Study, New York, New York. Project Manager for a conceptual study of the on-dock intermodal rail facilities for Maersk Terminals/Sea-Land site at the Port Authority of New York and New Jersey.

Marketing, Operations and Development Plans, Norfolk, Virginia. Principal-in-Charge for preparation of a Marketing, Operations and Development Plan for the Newport News Marine Terminal, the Portsmouth Marine Terminal and the Norfolk International Terminals, all part of the Virginia Port Authority.

Master Development Plan, Richmond, Virginia. Officer-In-Charge for preparation of the Master Development Plan for the Port of Richmond Terminal (PORT).

Pier J Facility Design, Long Beach, California. Principal-in-Charge of design for an on-dock intermodal rail facility for Maersk Line at Pier J, Port of Long Beach.

English Channel Tunnel Rail Schedule Study, England. Principal-in-Charge for a computer simulation study to evaluate operations, including equipment requirements, for intermodal facilities owned by British Railways and serving the English Channel Tunnel.

Strategic Plan for the Redevelopment of the Port of New York. Principal-in-Charge for a major study of the redevelopment of the New York City waterfront to increase maritime cargo handling. Study examined market forecasts for containerized and non-containerized commodities, inland distribution patterns and requirements by mode and commodity, shipper/carrier requirements, site attributes and environmental/community constraints.

Southport Master Plan and Southport Phase VI Terminal Yard Improvements, Port Everglades Department of Broward County. Principal-in-Charge for conceptual plan development of the new Southport Intermodal complex. This study involved analyzing current terminal operations, terminal capacity, and commodity growth forecasts. These analyses were utilized in development of a phased capital improvement plan.

Naval Base Re-Use Plan, Charleston, South Carolina. Principal-in-Charge for marine cargo terminal re-use plan for the Charleston, South Carolina Naval Complex as part of larger maritime and commercial reuse planning strategy. Included facilities inventory of the 1500 acre property, which was made available by base closure, as well as cargo demand forecasting, needs assessment, alternatives analysis, conceptual terminal design, and road/rail improvements planning.

Blair Waterway Master Plan, Tacoma, Washington. Principal-in-Charge of the Port of Tacoma's 2010 Master Plan to develop a ten-year improved-use master plan encompassing dry bulk, neo bulk, break-bulk and containerized cargo for the Blair Waterway, Port of Tacoma.

Marine Terminal Facility Development, Portland, Oregon. Principal-in-Charge of the marine terminal facility master development plan, Terminals 5 and 6, Port of Portland.

Marine Master Plan, Seagirt Marine Terminal, Baltimore, Maryland. Principal-in-Charge of the 264-acre Seagirt marine terminal master plan including the detailed design of the "on-dock" intermodal rail facility for the Port of Baltimore.

Strategic and Master Site Development Plan, Gulfport, Mississippi. Principal-In-Charge of strategic and master site development plan for intermodal cargo facilities, including break-bulk and dry bulk, container storage, rail, truck and ship operations at the Mississippi State Port at Gulfport.

Strategic Master Plan, Freeport, Texas. Principal-In-Charge of Strategic Master Plan for the Port of Freeport which encompasses over 8,000 acres of maritime and non-maritime property, including intermodal cargo handling operations.

Maritime Facilities Renovation, San Francisco, California. General Consultant to the Port of San Francisco for overall program management, development of design criteria, monitoring of design, budget and schedules for projects totaling \$42 million to renovate marine facilities and construct an ICTF.

Maritime Master Plan, San Francisco, California. Principal-in-Charge for a conceptual maritime master plan of approximately 640 acres of the Southern Waterfront, Pier 48 to Pier 98, Port of San Francisco and engineering feasibility study for San Francisco Container Terminal, Berth 92 to 96.

Container Terminal Design, San Francisco, California. Engineering design for modernization of Army Street Container Terminal, Port of San Francisco.

Cool Carriers Refrigerated Warehouse Engineering Services, Port Hueneme, California. Principal-In-Charge of project to design Cool Carriers Refrigerated Warehouse at Port of Hueneme. Provided architectural and engineering drawings and specifications for construction of a 142,000 square foot cold storage facility. The largest “on-dock” refrigerated facility on the US west coast.

Conceptual Facility Master Plan, Port Hueneme, California. Officer-In-Charge of Port Hueneme’s master plan for recommended capital improvements, circulation plan, centralized gate operation and auxiliary facilities.

Dundalk and Seagirt Marine Terminal Conceptual Designs, Baltimore, Maryland. Principal-in-Charge of the 570-acre Dundalk Marine Terminal master plan.

Daniel Island Conceptual Design, Charleston, South Carolina. Principal-in-charge for Terminal “X” conceptual planning for the Port of Charleston which included preparation of cargo forecasts, analysis of existing terminals, and conceptual design for the Daniel Island Development Plan.

Dames Point Master Plan, Jacksonville, Florida. Principal-in-Charge for master planning the 500-acre Dames Point Marine Terminal, Jacksonville Port Authority.

Aloha Towers Engineering Services, Honolulu, Hawaii. Principal-in-Charge for marine engineering, structural engineering and architectural programming for two cruise ship terminals, pier extensions, a ferry terminal, underground parking and all waterfront features, Aloha Tower Waterfront, Honolulu Harbor.

Cruise Industry Investigative Study, Boston, Massachusetts. Principal-In-Charge of a study to investigate the possibilities for the cruise ship industry at the Port of Boston. This project was performed for the Boston Redevelopment Authority and the Massachusetts Port Authority.

Berth 22 Reconstruction, Oakland, California. Officer-In-Charge for conceptual study through final construction documents for reconstruction of Berth 22 at the Port of Oakland, in order to accommodate Post Panamax vessels.

Wharf Reconstruction and Design, Redwood City, California. Principal-In-Charge for plans, specifications and cost estimates for design of Wharf 4 and reconstruction of Wharf 3, Port of Redwood City.

USGS Marine Facility Design, Redwood City, California. Principal-In-Charge for a conceptual planning and detailed design of U.S. Geological Survey Marine Facility, Port of Redwood City.

Port Performance and Master Plan Study, San Juan, Puerto Rico. Principal-in-Charge of a port performance study and design of a master site development plan to guide the Puerto Rico Ports Authority in future decisions regarding cargo throughput and storage, as well as the possibility for a cruise terminal facility.

NYK Line Administrative Headquarters Building Design, Los Angeles, California. Principal-In-Charge of overall terminal planning and design of five new state-of-the-art buildings at a 134-acre container terminal for NYK Line, Port of Los Angeles.

Cold Storage Facility Design, San Diego, California. Principal-In-Charge for design of Tenth Avenue Marine Terminal cold storage, handling and fumigation facility at the Port of San Diego. The 100,000 square foot facility was California's first on-dock refrigerated warehouse.

Pier J Facility Design, Long Beach, California. Principal-in-Charge of design for an on-dock intermodal rail facility for Maersk Line at Pier J, Port of Long Beach.

Federal Highway Landside Access Course, Washington, D.C. Principal-in-Charge and Principal Investigator to develop and teach a three-day course on passenger and freight intermodal transportation for the United States Federal Highway Administration and the National Highway Institute titled "Landside Access for Intermodal Facilities."

Chatham County Intermodal Freight Study, Savannah, Georgia. Principal-In-Charge for the development of a comprehensive cargo traffic study for the Georgia Department of Transportation. This study encompassed air, river, rail and street traffic in order to determine traffic constraints in each mode of transport for the county.