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WV Purchasing Division

West Virginia State Rail Plan Update

February 13, 2018





**West Virginia State Rail Plan Update
Solicitation No. CEOI 0804 RMA1800000001**

Proposed for your consideration is Mott MacDonald's response to the subject solicitation. We are enthusiastic about the opportunity to work with the West Virginia State Rail Authority on an update of the State Rail Plan. The many aspects of rail...freight, tourism, intercity and commuter passenger, and preserved corridors-contribute to a diverse economy in the Mountain State. Our team's combined body of work includes **eight rail plans in three different states**, making us exceptionally capable in our understanding and appreciation of rail plans and their importance to state rail programs.

Beyond being a federal requirement, the rail plan is also a living document and process that will serve the state's efforts to chart direction, set rail program priorities and make funding decisions, all based on a data-driven approach and methodology. You have a number of choices available in the region for transportation consulting firms, and we appreciate this opportunity to demonstrate Mott MacDonald as the one that can best meet the state's needs to provide an updated rail plan based on the rail issues that are most important to West Virginia.

We propose to bring essential rail planning strength, experience, and insight to lead the project. Project Manager, Christine Fix, is a Certified Planner and brings 18 years of rail planning experience both in passenger and freight, including the **Virginia State Rail Plan**. She will collaborate with Ed Lee, our Senior Rail Planner, who led the development of **five different rail plans for the Florida Department of Transportation**. Paul Worley also joins the team as Senior Technical Advisor and QA/QC Manager, and was involved in the development of **two rail plans in North Carolina**.

Additionally, David Ewing, Policy Analyst, brings vast experience on federal programs to fund and deliver rail projects. Each of these team leaders has a proven record of accomplishment in developing rail programs and projects that can compete successfully for both federal and state funding.



Our team also has a close and long-standing relationship with FRA staff and extensive understanding of the agency's policy and program objectives. We bring long-term relationships with both Class I and short line railroads that will serve West Virginia in gaining railroad participation and support.

The Mott MacDonald team also brings two long-standing partnerships with our subconsultants, Simpson Engineers & Associates, PC, a minority business enterprise, and Vanness Company, Inc, who will bring additional specialized railroad-related experience in data and economic analysis.

Finally, our mission focuses on providing client satisfaction through professional excellence, which not only means delivering an updated West Virginia State Rail Plan on time and on budget, but working alongside you so that you are confident in the deliverable. Mott MacDonald looks forward to serving the West Virginia State Rail Authority in developing an update of the State Rail Plan and in positioning West Virginia to compete for funding and economic growth utilizing its rail network.



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1 Team Qualifications

Mott MacDonald has assembled a specialized team for the West Virginia Rail Plan with solid experience in delivering services to state rail and transit agencies and railroad owners and operators. It is this experience and extensive knowledge of the railroad industry and transportation planning that will make this team an excellent and reliable choice.

1.1 Staff qualifications and experience in completing similar projects

Planning experience

Christine Fix, AICP

- 2008 Virginia Statewide Rail Plan

Mott MacDonald's proposed Project Manager, Christine Fix, is a Certified Planner who has been responsible for transportation planning projects, with an emphasis on rail and transit, for over 18 years. Ms. Fix was a Project Planner for the Virginia Statewide Rail Plan, which was featured in the American Association of State Highway and Transportation Officials (AASHTO) State Rail Planning Best Practices (November 2009). Christine is also the current Project Planner for the West Virginia Division of Highway's (WVDOH) Transportation Asset Management Plan and Mott MacDonald's General Rail Planning Services On-Call contract with the North Carolina Department of Transportation's Rail Division. Additionally, Christine was the Strategic Planning Manager at the Virginia Department of Rail and Public Transportation, under a Program and Project Management Consultant (PPMC) contract. She was involved in all phases of work assignments including cost estimates, federal grant applications, including the successful ARRA grant for Arkendale to Powell's Creek rail capacity project, and planning and environmental studies for Virginia's rail program. Ms. Fix also has experience in feasibility and improvement plans for freight rail serving North Carolina Ports. Christine has successfully lead multi-disciplined teams to deliver planning services on term contracts and is supported by skilled and highly reputable Mott MacDonald staff and subconsultant team members.

Local knowledge

Eric Bess, GISP

- 2018 West Virginia Transportation Asset Management Plan

Eric Bess, GISP, will be Deputy Project Manager. Mr. Bess, who is the project manager for the WVDOH Transportation Asset Management Plan, is adept at keeping this current project on schedule and on budget with routine and frequent communications with WVDOH. He is an integral part of our Charleston office, has extensive knowledge of West Virginia, West Virginia Department of Transportation (WVDOT) and WVDOH, and will bring a local presence and solid working relationships with state agencies and other stakeholders. Eric is a highly regarded project manager in the industry and supported by a local complement of technical staff in the Charleston office.

Rail expertise

Ed Lee

- 2002, 2004, 2006, 2010, 2015 Florida Department of Transportation Rail System Plans

Christine and Eric will be supported by Ed Lee, who is proposed as Senior Rail Planner. Ed has 39 years of experience in transportation planning, policy analysis and project/contract management. He led the development of the Florida State Rail Plan and the Freight Mobility and Trade Plan, a nationally known premier plan for prioritizing needs across all modes of transportation. While serving as Administrator of Rail/Motor Carrier Planning and Safety at the Florida Department of Transportation (FDOT), Ed also managed more than \$500 million in Strategic Intermodal System rail projects, the multimodal corridor planning group, and the department's Rail Safety Inspection Program. While at the Oregon Department of

Transportation (ODOT), Ed managed the Corridor and General Planning office and was responsible for the Multimodal Corridor Planning Program.

Paul Worley

- 1990, 2015 North Carolina State Rail Plan

Our Senior Rail Advisor and QA/QC Manager, Paul Worley, brings over 29 years of state rail department and project management experience of state and federal rail programs. During his tenure at the North Carolina Department of Transportation (NCDOT), Rail Division, Paul led key planning and safety programs, including the 2015 Comprehensive State Rail Plan and the Freight Rail and Railroad Crossing Safety Improvement Program, which developed a statewide program for improvements to freight railroads, including short line rehabilitation, industrial rail access for economic development and crossing safety. Mr. Worley also served as Project Manager for the 1990 North Carolina State Rail Plan update.

Analytics to deliver

Mott MacDonald is pleased to be supported by Simpson Engineers & Associates, PC (SEA) and Vanness Company, Inc. Both of these firms have been greatly involved in supporting rail programs and initiatives in the Southeast, and providing data and analysis that has shaped funding decisions on both the state and federal level.

SEA is approved as a certified Disadvantaged Business Enterprise with the Departments of Transportation for the following states: North Carolina, South Carolina, Virginia, Georgia, and Florida. The firm is in the process of applying for this certification with the West Virginia Department of Transportation. Jon Dees, our proposed Data Analysis Advisor, has worked closely with the NCDOT to develop financial and operating models for freight and passenger service. Mr. Dees has experience creating standard data sets and models for decision-making analysis, such as branch line/short line viability, passenger service viability and operating costs and revenues, and freight service operating costs and revenues.

Vanness has been involved in a number of competitive grant funding applications and providing support with benefit cost analysis on behalf of numerous clients including North Carolina's State Ports Authority and the Department of Transportation. The Vanness team also includes experience directly related to the changes underway in the rail freight industry, including the potential sale of rail lines by the Class I's.

The proposed staffing plan for this team is displayed on the next page, followed by a full picture organizational chart. The team's qualifications and experience are further highlighted in the brief resumes in Section 4.

1.2 Proposed staffing plan

Project Initiation		
Existing Plan Review	Christine Fix Ed Lee	Paul Worley Marcus Arnold
Pre-Survey (Issues, Policy Direction)	Ed Lee	Paul Worley
Needs Survey	Ed Lee Marcus Arnold	Christine Fix
Policy Development	Paul Worley Eric Bess	Christine Fix
Stakeholder/Neighboring State Interviews	Ed Lee Marcus Arnold	Paul Worley
Best Practices	Ed Lee Eric Bess	Paul Worley
Draft Plan		
Data Analysis		
Freight	Ed Lee Chris Rooney	John Dees
Passenger	John Dees Marcus Arnold	Chris Rooney
Economic	Chris Rooney	Jon Dees
Cost Estimates	Crew Heimer	Ben Strauss
Draft Data/Trend/Policy Aspects of Plan	Christine Fix Paul Worley	Ed Lee
Incorporate/Prioritize Needs of Plan	Christine Fix Paul Worley	Ed Lee Marcus Arnold
Finalize Plan		
Public Participation	Christine Fix Eric Bess	Paul Worley Ed Lee
Finalize Public Review Draft	Ellen Holding	
Document Preparation/ Final Plan	Ellen Holding Ed Lee	Christine Fix Paul Worley

1.3 Organizational Chart

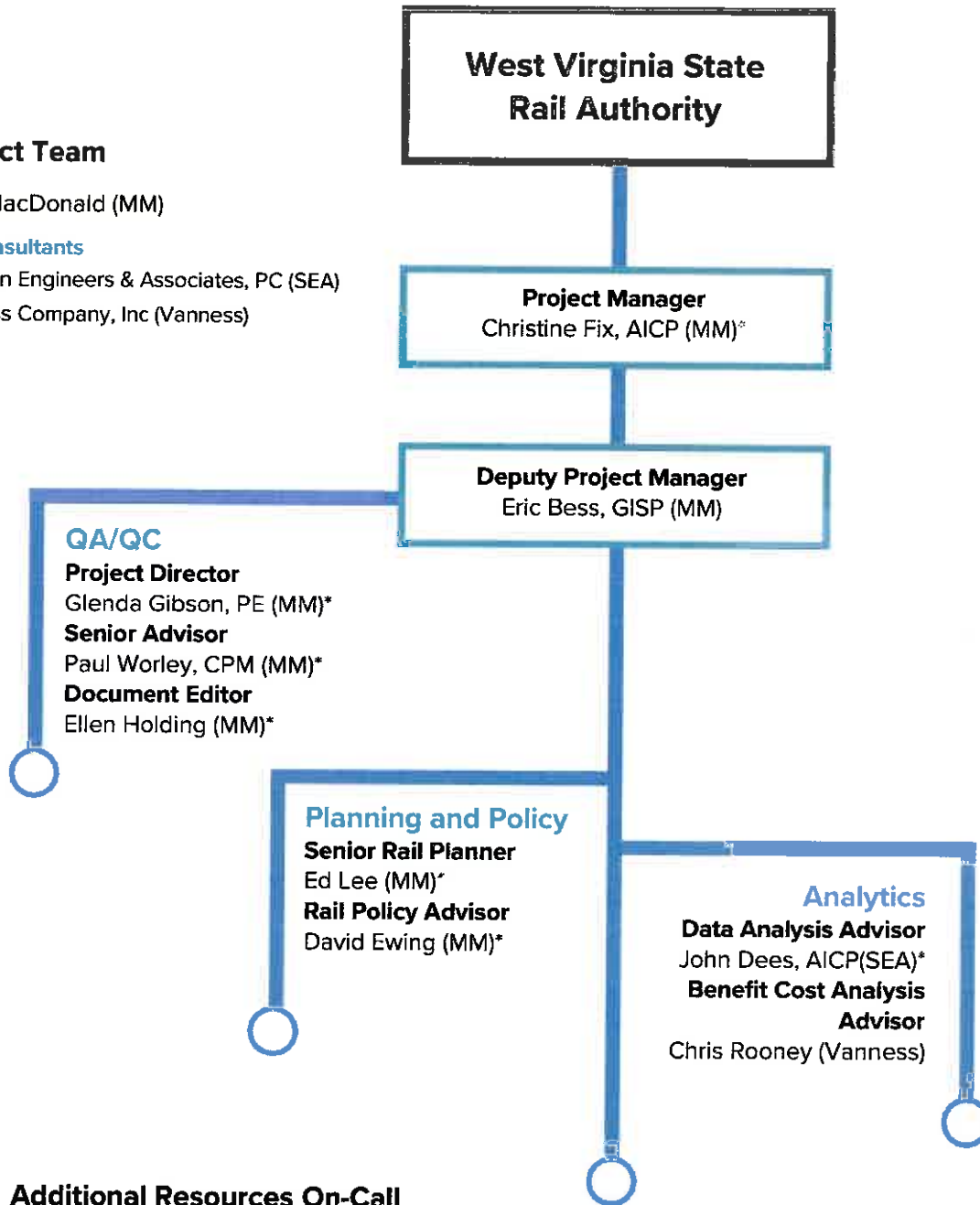
Project Team

Mott MacDonald (MM)

Subconsultants

Simpson Engineers & Associates, PC (SEA)

Vanness Company, Inc (Vanness)



Additional Resources On-Call

Strategic Rail Planning Advisor

Larry Ratcliffe (Vanness)

Passenger Rail Planning Advisor

Marcus Arnold, AICP (MM)

Cost Estimates Advisor

Ben Strauss (MM)

Value Estimates Advisor

Crew Heimer, PE (MM)

***Indicates prior experience on a State Rail Plan**

2 Team Experience

Mott MacDonald has designed and managed some of the most prominent rail and transit projects in North America and around the world. Not all firms are poised to bring the depth and experience that we carry with us to each endeavor. Our involvement in both rail freight and passenger projects spanning North America, such as Norfolk Southern's Heartland Corridor and North Carolina's Piedmont Improvement Program, enables us to provide the expertise of a large, global firm to best support the success of our individual clients.

Mott MacDonald general experience

Mott MacDonald provides extensive knowledge of best rail transportation practices from around the globe, with a portfolio consisting of planning, design, and project and construction management, including large transportation projects such as:

- Norfolk Southern Heartland Corridor Tunnel Clearance Improvements, West Virginia and Virginia
- Dulles International Airport People Mover Tunnels, Dulles, VA
- Metro Yard Expansion, Washington, DC
- East Side Access, Long Island Railroad, New York, NY
- Amtrak Maintenance Facility, Seattle, WA
- Metro Red Line North Hollywood Extension, Los Angeles, CA
- On Call Engineering Contracts with agencies including West Virginia DOT, North Carolina DOT, Metro-North, LIRR, NJ Transit, and MBTA
- Light Rail Northshore Connector, Pittsburgh, PA

Our expertise in effectively implementing scope and cost control for diverse capital programs and their associated requirements has been developed on major projects and programs with stringent schedule and budget requirements. Configuration management, schedule, and cost management are the key elements of Mott MacDonald's proven program management approach. Our team has the experience necessary to have a clear understanding of what it takes to successfully deliver a project in a difficult environment, with limited owner resources, complex competing priorities, and contractual established time constraints.

Sub-consultant general experience

SEA has provided engineering and planning services to public and private agencies, including the NCDOT, North Carolina Turnpike Authority, South Carolina Department of Transportation, and Hampton Roads Transit. SEA's team has been instrumental in the data tracking and analysis of North Carolina's Amtrak passenger rail service, including representation of the state on national negotiation efforts, development of the rail portions of the state's Strategic Transportation Initiatives mobility formulas, and extensive analysis of waybill data received from the Surface Transportation Board (STB).

Vanness is highly experienced at the financial modeling associated with developing financial strategies and evaluating strategies with benefit cost analyses. The core of their practice is assisting the implementation of economically viable transportation and economic development projects through financial and economic processes and integration of various disciplines, including

market research, design and construction costs, and staffing, operating and maintenance costs. Vanness uses a suite of financial and economic models, assisted by many years of collective experience.

Rail Plan specific experience

The Mott MacDonald team has a clear understanding of what it takes to deliver a successful State Rail Plan, having helped develop State Rail Plans for Virginia, North Carolina, and Florida. We have the experience necessary to effectively manage three crucial aspects of these type of projects: communication, schedule, and budget.

Communication: As the Strategic Planning Manager for the Virginia Department of Rail and Public Transportation (DRPT) On-Call Project and Program Management Contract, which included the **Virginia State Rail Plan**, Ms. Fix was the single point of contact for DRPT Project Managers, and served as the focal point of all communications and coordination between DRPT and other state agencies and other individual project consultant teams. She has experience coordinating with the various planning, environmental and design disciplines necessary to navigate the inter-disciplinary nature of rail and transit studies. We understand that a critical element of any project is effective communication, including the coordination and scheduling of all direct and indirect activities.

Schedule: The Mott MacDonald team was selected as a sub-consultant for the 2015 **North Carolina Comprehensive Statewide Rail Plan** to bring focus and management controls to the project. The team's successful efforts to adhere to scope, schedule and budget was key in the productive involvement of staff, stakeholders and consultants, and resulted in timely delivery of the various aspects of the process.

Budget: Mott MacDonald was retained by NCDOT as a prime, responsible for program management and construction oversight for the Piedmont Improvement Program of railroad and highway construction projects and enhancements, adding capacity, improving highway-railroad safety, upgrading equipment, and improvements to station and maintenance facilities funded through a \$546.5M federal grant. This included development and implementation of a **Program Management Plan** which included monitoring/management of the overall program budget, including the generation of a program-level cash curve of actual vs. anticipated expenditures that has since been adopted by the Federal Railroad Administration as a best practice. When the six-year program was complete, not only was it within the federal grant budget, but a \$3 grant balance remained.

The following descriptions of past projects further showcase the specialized experience and technical competence of the Mott MacDonald team in meeting project goals and objectives and delivering rail planning services.

2.1 Mott MacDonald history of similar projects and references

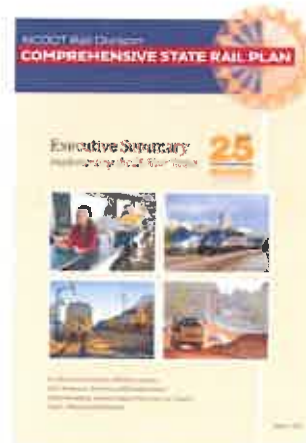
Comprehensive Statewide Rail Plan

Client: North Carolina Department of Transportation (NCDOT), Rail Division

Location: Raleigh, NC

Date Completed: 2015

Goals and Objectives: The 2015 North Carolina Comprehensive Statewide Rail Plan sought to prioritize the investment of limited capital dollars for maximum public benefit. In North Carolina over the past two decades urban and intercity highway traffic has continued to grow at rates far more than capacity expansion, leading to interest in multi-modal planning. The 2015 North Carolina Comprehensive Statewide Rail Plan intended to identify passenger and freight alternatives to relieve congestion and minimizing the environmental impacts of economic expansion.



Mott MacDonald Role: As a sub consultant on this project Mott MacDonald managed the project schedule and provided support in several areas, including:

- Provision of an inventory of all existing rail transportation systems, services and facilities within the state of North Carolina and inventory of proposed high speed rail corridors and significant rail line segments not currently in service.
- Creation of a draft GIS Map of the Freight Rail Corridors in North Carolina and additional categories including population densities, housing densities, employment densities, existing land uses, supportive station planning context, highway rail grade crossing locations, and accident / incident data.
- Conducting research, data collection and interviews to identify and evaluate plans, programs, and policies that have been employed by other states in the provision of passenger and freight rail infrastructure and service.
- Conducting a general analysis of rail's transportation, economic and environmental impacts in the state of North Carolina, including congestion mitigation, trade and economic development, air quality, land-use, energy-use, and community impacts.
- Creation of a summary segment capacity analysis including deficient highway corridors, and performance measures of existing passenger rail operations.

Reference and Contact: Sandra Stepney | T: 919.715.0296 | E: sastepney@ncdot.gov

DRPT Program and Project Management, Including Virginia State Rail Plan

Client: Department of Rail and Public Transportation (DRPT)

Location: Richmond, VA

Date Completed: 2011

Goals and Objectives: Virginia's Department of Rail and Public Transportation (DRPT) reorganized itself and sought to transition from a pure granting agency to a multi-disciplined program delivery organization. Mott MacDonald and a team of sub-consultants were selected as the Program and Project Management Consultant (PPMC) for DRPT to fill staff and executive level positions within DRPT's re-organized structure; MM staff were embedded in the DRPT offices.

Mott MacDonald Role: Under the PPMC contract, MM performed the following activities: **developed a State Rail Plan, evaluated all the Short Line Railroads in Virginia**, performed Preliminary Engineering for the Urban Crescent Corridor, updated the three major Grant program processes, performed an EA to select the preferred High Speed Rail in Richmond area, managed three different environmental documents, coordinated the activities of local government with Amtrak and FRA, developed the program costs for a \$757M inter-city passenger rail enhancement program, modeled operations on the I-95/I-64 Rail Corridor, signal design for 22 miles of branchline railroad, and worked with Amtrak on additional stations and improvements contained in the State Rail Plan.



Reference and Contact: Jeremy Latimer | T: 804.225.4016 | E: Jermey.Latimer@drpt.virginia.gov

Transportation Asset Management Plan

Client: West Virginia Division of Highways

Location: Charleston, WV

Date Completed: 2018

Goals and Objectives: The Transportation Asset Management Plan (TAMP) will comply with Federal requirements of the Fixing America's Surface Transportation (FAST) Act by developing a FAST-compliant TAMP, develop a Pavement Management System (PMS) and a Bridge Management System (BMS) to aide WVDOH in updating internal processes and procedures for managing the states highway assets.

Mott MacDonald Role: Mott MacDonald is the prime consultant developing the West Virginia Division of Highway's FHWA mandated TAMP. The project includes a review of WVDOH's existing PMS and development a BMS for data consumption and project selection for the WVDOH capital improvement program per the TAMP requirements. The truncated schedule of only 7 months requires a flexible and focused team to deliver the Federally mandated initial TAMP on time and on budget.

Reference and Contact: William Varney | T: 304.558.9490 | E: William.H.Varney@wv.gov

Global TransPark to Port of Morehead City Mobility Corridor Study

Client: NCDOT, Rail Division

Location: Raleigh, NC

Date Completed: 2016

Goals and Objectives: The Global TransPark to Port of Morehead City Mobility Corridor Study sought to evaluate potential rail and port infrastructure improvements to improve rail access to the North Carolina Port of Morehead City, and reduce conflicts between rail and vehicular traffic in New Bern, NC.

Mott MacDonald Role: The Mott MacDonald team drafted planning level alternatives for highway, rail and port improvements, including cargo volume estimates, preliminary cost estimates and identification of environmentally sensitive features.

Reference and Contact: Sandra Stepney | T: 919.715.0296 | E: sastepney@ncdot.gov

Wilmington Rail Improvements Study

Client: North Carolina State Ports Authority and NCDOT, Rail Division

Location: Wilmington, NC

Dates Completed: 2017

Goals and Objectives: The Wilmington Rail Improvements Study aimed to improve access from the Port of Wilmington through the City of Wilmington and to Davis Yard, a CSX rail yard, west of the Port.

Mott MacDonald Role: Mott MacDonald developed near term rail and port infrastructure improvements, assessed the demand for freight rail services at the Port, reviewed existing rail facilities and made recommendations for both on and off-terminal improvements needed to increase frequency, speed, and volume of rail freight movements. This report was utilized as supporting documentation for an \$11.8 million TIGER grant application.

Reference and Contact: Stephanie Ayers | T: 910.251.7073 | E: Stephanie.Ayers@ncports.com

NCDOT Competitive Grant Application Development

Client: NCDOT, Rail Division

Location: Raleigh, NC

Dates Completed: 2016-2017

Goals and Objectives: The NCDOT Rail Division sought to promote the safety and reliability of rail transportation in North Carolina by proposing improvements to remove hazardous and highly-traveled at grade crossings.

Mott MacDonald Role: Under a NCDOT Rail Division General Planning On-Call Contract, Mott MacDonald provided planning for and has authored multiple grant applications, including a \$81.1 million INFRA grant for improvements to remove 10 at-grade crossings within the Southeast Sealed Corridor, and a \$20 million TIGER grant to eliminate three grade separations.

Reference and Contact: Sandra Stepney, | T: 919.715.0296 | E: sastepney@ncdot.gov

Statewide Short Line Rail Plan

Client: DRPT

Location: Richmond, VA

Date Completed: 2008

Mott MacDonald was responsible for the development of a Statewide Short Line Rail Plan and the Short Line Improvement Program and for the Virginia DRPT. The Mott MacDonald team conducted interviews with the managers of the short lines to determine the needs of the railroad. A field verification of the track charts was completed to validate the conditions at a representative number of locations, and of differing infrastructure components for each short line railroad. Mott MacDonald then developed a conceptual level needs estimate of the short line railroads, identifying public funding sources and private funding Levels and developed a single document encompassing the Short Line Rail Plan and Statewide Short Line Improvement Program.

Reference and Contact: Jeremy Latimer | T: 804.225.4016 | E: Jerney.Latimer@drpt.virginia.gov

Piedmont Improvement Program, Including Program Management Plan

Client: NCDOT, Rail Division

Location: Raleigh to Charlotte, NC

Date Completed: 2017



Goals and Objectives: In 2010, the Federal Railroad Administration awarded North Carolina a grant of \$546.5 million from the American Recovery and Reinvestment Act (ARRA) for railroad and highway construction projects and enhancements, upgrading equipment, and improvements to passenger facilities called the Piedmont Improvement Program.

Mott MacDonald Role: Mott MacDonald developed the Program Management Plan as the prime consultant responsible for Program and Project Development and Administrative Services and general Program Oversight. There are approximately 22 main projects and some

45 sub-projects in the program for which MM has provided the following: Program Development Services, coordination of various stakeholders including Federal, Local, and Private, project review and commenting processes, and subsequent revisions of supporting documents required by FRA.

Reference and Contact: Allan Paul | T: 919.707.4700 | E: ahpaul@ncdot.gov

3 Approach and Methodology

The Mott MacDonald team will build upon the West Virginia State Rail Authority's (WVSRA) efforts and develop an update to the 2013 State Rail Plan that addresses the challenging nature of freight and passenger rail within the state and develop an action plan to focus limited transportation funds on the projects that deliver the most benefits with the right mixture of funding sources.



West Virginia stands at a point of opportunity as it has several key rail markets, all with varying interests and needs: Class I freight lines, short lines (including seasonal tourist trains and freight) as well as intercity and commuter rail. The present dynamics of freight and passenger railroading, and aging infrastructure could be interpreted as challenges for any capital improvement plan. Solid rail planning is critical in the

development of strategic and targeted improvements rather than whole system upgrades

The Mott MacDonald team will develop targeted solutions for each of these systems based on stakeholder input from, citizens, railroads, economic development organizations and local, regional, and state governmental agencies.

The Mott MacDonald team approach is twofold. The primary task is to meet West Virginia's goal of drafting a State Rail Plan that meets federal requirements as updated most recently in the FAST Act. States must prepare and update the State Rail Plan to maintain eligibility for federal rail funding. A secondary, but also critical, task is to use the updated State Rail Plan to further develop the program of projects identified in the Plan. This program of projects, or Action Plan, will not only position West Virginia to capture federal funding but to explore options for state and rail industry funding. Additionally, we will assist West Virginia in developing strategies for dealing with emergent industry issues such as the recent moves by CSXT to divest some lines in the state.

3.1 Procedure for communication

Communication is a key to success on projects of any scale, and Mott MacDonald takes pride in constant and open communication and documentation throughout the project life cycle. We propose a five point communication plan:

- Structured Communication – Steering Committee meetings, Stakeholder meetings and Public Hearings
- Follow-up – Meeting notes and minutes
- Touch Points – Frequent communication with WVSRA Project Manager
- Advance Communication – Preparations in advance of formal meetings to make meetings structured and efficient

- Tools in our Toolbox – Electronic delivery of communications, interim reports, meeting minutes.

Mott MacDonald believes in working as partners with our clients, keeping them involved and informed in every step of any project. In developing a State Rail Plan for West Virginia, we propose:

- An Initial face-to-face kickoff meeting after Notice to Proceed is received. This would include all key Mott MacDonald team members with a purpose of reviewing the work plan details, discussing issues, and developing the pre-survey for Steering Committee members.
- Weekly team calls to inform WVSRA of progress and to react to changes.
- As needed discussions with the Mott MacDonald project manager to resolve any issues.
- Periodic steering committee meetings and workshops to maximize time and communications among stakeholders.
- Documentation of meetings and workshops through minutes and summary reports, as well as furnishing interim and draft deliverables to the client prior to key meetings for review and meeting preparation to maximize efficiency during workshops.
- Communications to be held at key milestones immediately prior to steering committee meetings to discuss meeting materials and roles.

Mott MacDonald has a wide variety of communication tools within our internal GoDigital Initiative that are available and flexible to the client's needs and preferences, that can be leveraged if the client desires. The GoDigital Initiative is Mott MacDonald's technology platform for enhanced project delivery, and offers several options to the client for document management and deliverable sharing that enable efficiency, allow multi-user collaboration, and version history for a full audit trail of document development, review, and approvals, which should assist in keeping the project on budget. On-going two-way communication is critical to ensuring Mott MacDonald meets the goals and objectives of WVSRA in developing this Plan.

3.2 Plan to ensure project will be completed within the project budget

Mott MacDonald will use a monitoring/management approach for the overall project budget, utilizing proven models such as the generation and maintenance of a program-level cash curve of actual vs. anticipated expenditures based on that which was used under the Piedmont Improvement Program and has been adopted by the Federal Railroad Administration as a best practice. The result of this approach will be a periodic budget and schedule update provided to the WVSRA Project Manager, reflecting work completed to date and work remaining, and budget expended versus that which remains.

3.3 Plan to ensure project will be completed within the agreed period

Upon Notice to Proceed, Mott MacDonald will quickly initiate action by completing a thorough review of not only West Virginia's existing Plan, but also those of neighboring states. During this review, key staff would meet with West Virginia staff to discuss:

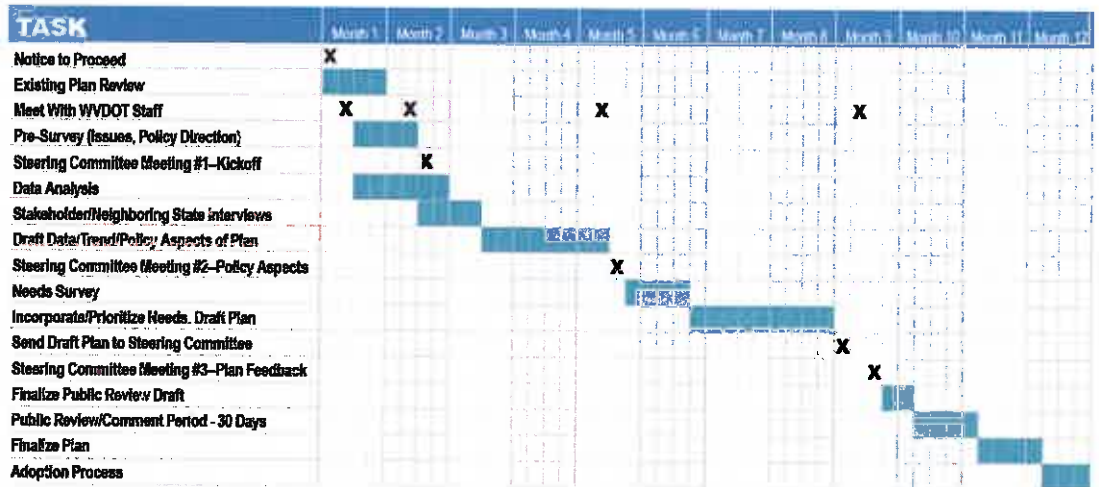
- Roles,
- Develop a pre-survey for stakeholders,
- Secure access to critical waybill/safety data for analysis,
- Determine steering committee membership, and

- Develop a strategy for the first steering committee meeting (kickoff).

In preparation for the steering committee’s first meeting, Mott MacDonald will distribute the pre-survey to the committee members. Items covered will include: industry trends, issue identification and policy priorities. At the same time, Mott MacDonald will perform analysis of STB fee waybill data, FRA safety data, and passenger ridership data to identify changes and trends in traffic volumes and incident frequency/severity.

Mott MacDonald will follow the kickoff meeting with one-on-one meetings with key stakeholders from railroads (both passenger and freight) and shippers to further identify issues and trends.

Figure 1: Proposed Project Schedule



Based on these activities and the data analysis, Mott MacDonald will draft the data, trend and policy aspects of the Plan and present this work to the steering committee at their second meeting. This second meeting will also be used to introduce a needs survey that will be distributed.

Information from this survey will then be incorporated into the plan and the needs will be prioritized based on the policy directions approved by the steering committee and WVSRA. Mott MacDonald will then finalize a first draft of the Plan to be sent to the committee two weeks prior to their final meeting. Based on their feedback Mott MacDonald will finalize a public review draft and hold a 30-day public review/comment period. This will be followed by finalization of the Plan and actions necessary for adoption by the State.

3.4 Work Plan for Additional Proposed Tasks

The changing landscape of the rail industry requires new and strategic thinking that may be accomplished outside of the traditional State Rail Plan scope. Our analysis of recent industry trends and developments lead us to believe that West Virginia could benefit from targeted tasks that supplement the State Rail Plan initiative. Mott MacDonald can provide additional on-call rail-related services to WVSRA. While these items are out of the scope and budget of the State Rail Plan, as defined, we believe that the WVSRA could consider these tasks as a separate project(s) to promote the State Rail Plan from a planning level document to an implementation document. If desired by WVSRA, these would include, but not be limited to:

- Developing applications for United State Department of Transportation (USDOT) funding assistance for projects identified in the State Rail Plan. Currently, there are several federal programs available to states on a competitive basis (e.g. the TIGER, INFRA and CRISI programs). Additionally, the Federal Administration has discussed increased funding for infrastructure. Mott MacDonald will assist WVSRA in positioning the State to maximize chances for securing these competitive funds by developing key identified projects identified during the State Rail Plan process into a “shovel-ready” state.
- Assist WVSRA in quick responses to railroad issues such as CSXT’s proposed sale of lines in the state and incident response.
- Assist WVSRA in developing a short line rehabilitation program aid in bringing smaller railroads up to industry standards (e.g. 286,000-pound track structure, yard improvements), to make state railroads more competitive and to minimize the numbers of railcars needed to handle freight demands.
- Assist WVSRA in developing a program to address the large number of aging rail tunnels in the state. Our tunneling expertise, as evidenced in the Heartland Corridor project, will identify aging tunnels during the data collection and analysis phases and develop potential engineering and safety solutions.

These additional tasks would be done on a task work order basis at the request of WVSRA.

3.5 Mott MacDonald Quality Control

Mott MacDonald is committed to providing quality services to our clients through our proprietary Business Management System (BMS) that complies with ISO 9001 Quality Management System requirements. The entire BMS is audited externally on an annual basis with additional audits performed every three years for our ISO 9001 recertification. The mandatory program for all Mott MacDonald North America business focuses on risk management and continuous improvement through a three-step process of Win, Do, and Learn. Our processes include:

- **WIN** – understand the client’s needs, ensure senior management support and identify the proper project team members. We feel that building the right team is a key to success.
- **DO** – begins by developing a detailed Project Plan of Work (PPW) that identifies team roles, project schedule, internal review processes, and document filing/approval procedures. This PPW is a living document and is updated as required during the project. During the project, all deliverables are checked for accuracy and consistency prior to delivery to the client. Monthly internal project control meetings are also held to ensure the proper use of resources.
- **LEARN** – A critical element of the Mott MacDonald Quality Management System is evaluating and acting on feedback from clients. This is done through client care interviews and post-project reviews conducted by non-team members to ensure an unbiased evaluation.

WIN

Our internal Quality Assurance/Quality Control procedures require a Project Management Plan be prepared, including a task level work sequence, quality and cost control protocols, project budget, communications and reporting procedures, client expectations and role definitions. This will be developed during the initial kickoff meeting, as described in the Communications Plan. Major deliverables include a project schedule, contacts list, and a monthly progress/invoice template.

DO

A detailed Project Plan of Work (PPW) will be developed, based on discussions and recommendations made at the Kickoff Meeting. The PPW will include a task level schedule, complete with major and minor deliverables, durations, and milestone dates. The plan will be based on methods we have used to successfully deliver similar projects, refined through our internal review processes (LEARN) as described below. The overriding objective will be to complete each individual task or assignment to scope within schedule and budgetary constraints.

LEARN

Project review will take place throughout the lifecycle and closeout of the project. During the project our Project Director will ensure our team is running smoothly by conducting client care interviews and meetings, in addition to formal project reviews at key milestones and at project closeout.

4 Resumes



Christine Fix, AICP

Project Manager

Personal summary

Education:

BA, Art History, Hollins College, Roanoke, VA, 1997

MP, Historic Preservation, University of Virginia, School of Architecture, Charlottesville, VA, 1999

Registrations:

American Institute of Certified Planners, AICP, 2002

Professional memberships:

American Institute of Certified Planners

American Planning Association

Ms. Fix brings over 18 years of experience in transportation and environmental planning to the Mott MacDonald team. She has served as a project manager on regional and state-level rail transportation projects. Ms. Fix has extensive knowledge of transportation planning, in all modal environments, freight, intermodal, and passenger and is adept at grant writing and drafting funding solutions for transportation projects. She is extremely familiar with the NEPA process and has prepared or reviewed multiple environmental documents for FRA and FHWA projects. Ms. Fix is also comfortable in the public arena, giving presentations to community stakeholders, participating in or leading public hearings and public involvement meetings.

Selected projects

Transportation Asset Management Plan (TAMP), West Virginia Division of Highways (WVDOH), Charleston, WV: Project Planner for Federally-mandated TAMP, working with a highly-specialized team to author the TAMP and related series of documents. The project includes a review of WVDOH's existing Pavement Management System (PMS) and development a Bridge Management System (BMS) for data consumption and project selection for the WVDOH capital improvement program per the TAMP requirements.

Virginia Statewide Rail Plan, Virginia Department of Rail and Public Transportation (DRPT), Richmond, VA: Project Planner, assisted in editing and writing sections and overseeing the completion of the Virginia Statewide Rail Plan. The Plan involved long-range planning, freight and passenger rail feasibility analysis, and identification of passenger and freight rail needs. Consisting of several documents, the Rail Plan, the Resource Allocation Plan, the Short Line Technical Memorandum, and the Technical Data Update, the plan is part of a large statewide effort to update the Virginia Multimodal Transportation Plan, VTrans 2035. The American Association of State Highway and Transportation Officials (AASHTO) featured the plan in their report State Rail Planning Best Practices (November 2009).

Project and Program Management, DRPT, Richmond, VA: Strategic Planning Manager through On-Call Project and Program Management Contract (PPMC) for DRPT. Project manager for rail and strategic planning for DRPT, focused on multi-modal and inter-agency planning with state and local officials, policy development and implementation of DRPT programs including: Statewide Travel Demand Management, Transit, and Rail Plans. Represented DRPT at public and agency meetings across the Commonwealth.

Global TransPark to Port of Morehead City Mobility Corridor, North Carolina Department of Transportation (NCDOT), Raleigh, NC: Project Planner for a feasibility study that evaluated potential rail and port infrastructure improvements to improve throughput to Global TransPark Inland Terminal to North Carolina State Port Authority Morehead City Terminal, and reduce conflicts between rail and vehicular traffic in New Bern, NC. Potential improvements to the port, rail alignments in New Bern and Morehead City were evaluated. Responsible for project planning, editing and reviewing document, and providing QA/QC.

Wilmington Rail Improvements, North Carolina State Ports Authority (NCSPA), Wilmington, NC: Project planner for a study that developed near term rail and port infrastructure improvements to improve access from the Port of Wilmington through the City of Wilmington and to Davis Yard, a CSX rail yard, west of the Port. The report also assessed the demand for freight rail services at the Port, reviewed existing rail facilities and made recommendations for both on and off-terminal improvements needed to increase frequency, speed, and volume of rail freight movements. This report was utilized as supporting documentation for an \$11.8 million TIGER grant application.

Funding Strategies for State Sponsored Intercity and High Speed Passenger Rail, DRPT, Richmond, VA: Project Manager for report responding to the General Assembly bill (SJ63) which directed DRPT to study funding of high-speed and intercity passenger rail operations in the Commonwealth. Authored report that identified potential stable, predictable sources of passenger rail financing to encourage long-term planning and investment strategies for passenger rail in Virginia.

North Carolina State Ports Authority (NCSPA) Capital Improvements Special Report, North Carolina Ports and NCDOT, Raleigh, NC: Project Planner for report that summarizes capital improvement plans for port, road and rail infrastructure that support the Port of Morehead City and the Port of Wilmington, as requested by the House Select Committee on Strategic Transportation Planning and Long Term Funding Solutions.

Rails with Trails/Pedestrian Crossing Project Initiation, Coordination, and Review, DRPT, Richmond, VA: Project Manager and author of report responding to the General Assembly's direction to: develop a process to coordinate and evaluate public recreational access and safety issues directly related to new railroad projects funded by the Commonwealth. As project manager, drafted the report and established project review process in coordination with state recreational agencies, Class I railroads, short line railroads and recreational advocates.

INFRA Grant Application, NCDOT, Raleigh, NC: Project Planner and author of an INFRA grant application for NCDOT, Rail Division for the Southeast Sealed Corridor –Wake County Grade Separations. The \$81.1 million grant request proposed \$135.2 million of improvements to promote the safety and reliability of highway and rail transportation through north Raleigh by eliminating 10 hazardous at-grade crossings within the Southeast Sealed Corridor.

TIGER Grant Application, NCDOT and North Carolina Capitol Area Metropolitan Planning Organization (CAMPO), Raleigh, NC: Project Planner and author of a TIGER grant application for NCDOT, Rail Division, submitted by the CAMPO for the Millbrook Road Grade Separation in Raleigh, NC. The \$20 million request for a grade separation in Raleigh, when combined with two additional state funded grade separations (totaling \$48.7 million) would promote safety and reliability by eliminating three highly traveled grade separations.

Wilmington Terminal Intermodal Facility TIGER Grant Application, NCSPA, Wilmington, NC. Project planner and grant writer for an \$11.8 million grant application and supporting documents for a total of \$22.2 million. The capital improvement program proposes to design and construct an intermodal rail yard, laydown area, siding tracks, a run-around track and upgrade existing terminal access tracks for additional rail and container volume, velocity, and efficiency.

ARRA and HSIPR Application Review and Development, DRPT, Richmond, VA: Assisted in the development of American Recovery & Reinvestment Act (ARRA) and High Speed Intercity Passenger Rail (HSIPR) grant awards for the Commonwealth of Virginia. Resulting in a fully-funded award of \$72.5 million for the shovel ready project, Arkendale to Powell's Creek Third Track; which was the largest shovel-ready rail project in the nation and the HSIPR award of \$44.3 million to complete environmental studies and preliminary engineering of the Richmond to Washington, DC segment of the SEHSR corridor; as well as a \$1.2 million award for the completion of preliminary engineering for a new Appomattox River Bridge and associated track improvements to eliminate a single track bottleneck on the SEHSR corridor. Reviewed FRA contracts and requirements and assisted with interagency meetings and negotiations between FRA, DRPT, Amtrak, and CSX.

Southeast High Speed Rail (SEHSR) Tier II Environmental Impact Statement (EIS), DRPT, Richmond, VA: Project Manager, managed the Tier II EIS for the Virginia portion of the Richmond, VA to Raleigh, NC section of the SEHSR project. Coordinated with NCDOT Rail Division, consultant team, VDOT and FRA, responded to citizen comments and media requests, represented DRPT in public and agency meetings, coordinated public involvement process. The project, funded by both NCDOT and DRPT, through a Virginia Rail Enhancement Fund Grant required keeping project on budget and on schedule.

Arkendale to Powell's Creek Third Track Environmental Assessment (EA), DRPT, Prince William and Stafford Counties, VA: Project Manager, representing DRPT and managed the EA required as part of a \$72.5 million American Recovery & Reinvestment Act (ARRA) grant award. Responsibilities included coordination with CSX, FRA, Virginia Railway Express (VRE), and multiple consultant teams, and represent DRPT during resource agency meetings. This ARRA Track I project involved the addition of 11.5 miles of 3rd track providing additional capacity and passenger rail service on the CSX RF&P Mainline.

Richmond to Hampton Roads Passenger Rail Project, DRPT, Richmond, VA: Project Manager, represented DRPT and oversaw completion of the Tier I EIS. Responsibilities included coordination with local governments, resource agencies, FRA and consultant team, respond to citizen comments and media requests, represent DRPT in public and agency meetings, assisted in coordinating public involvement process. Negotiated with FRA through multiple rounds of review to get dormant project re-established. State funded project required close management of consultant team to keep project on budget and on schedule.



Eric R. Bess, GISP
Deputy Project Manager

Personal summary

Education:

BS, Engineering Technology,
West Virginia University,
Institute of Technology, 1996

AS, Civil Engineering
Technology, West Virginia
University, Institute of
Technology, 1995

Registrations:

NICET Certified Civil
Engineering Technician,

Certified Geographic
Information Systems
Professional (GISP)

Professional memberships:

Member of American Water
Works Association (AWWA)

American Society of Certified
Engineering Technicians
(ASSET)

West Virginia Association of
Geographic Professionals
(WVAGP)

Mr. Bess has over 17 years of experience, which includes project management, database development, workflow and dataflow process management, training, analysis, asset management, and field personnel management. Prior to this, Mr. Bess worked for five years in the coal industry, which also aided in a coal relations GIS support role for his oil & gas experience. He has experience with data creation, compilation, reporting and analysis, and QA/QC of various datasets for business needs.

Experience and skills

His mining experience includes a wide range of tasks from traveling with inspectors, to ensuring tools and parts for daily and planned maintenance activity, to traveling with surveyors underground to ensure proper mining direction and location are correct. He also assisted with permitting, mine projection development, ventilation review, and managed the water treatment systems for the bath houses, including ordering and management of the systems and chemicals and reporting requirements for state agencies. He also performed on-site IT support and human resource functions, as needed, for a union workforce of over 200 individuals.

Selected projects

Transportation Asset Management Plan (TAMP), West Virginia Division of Highways, Charleston, WV

Serves as Project Manager on this project. The client engaged Mott MacDonald as the prime consultant to develop their FHWA mandated TAMP. During that development, subconsultants were also engaged and managed for not only TAMP authoring but for review of the client's existing Pavement Management System (PMS) and to develop a Bridge Management System (BMS) within the Deighton software platform for data consumption and project selection for their capital improvement program as part of the TAMP requirements.

Water System Acquisition Due Diligence, West Virginia American Water Company, WV

Served as Senior GIS Specialist on this project. Client requested due diligence to be done on a smaller water system that may be acquired. Work consisted of creating a GIS linkage between a master easement spreadsheet and parcel outlines in GIS. Assets were digitized from scans that were georeferenced, and buffer calculations performed based on the easement criteria to make a map book of the coverage area with various information displayed.

Stormwater Pollution Prevention Plans (SWPPP), City of Charleston, Charleston, WV

Served as Project Manager and Senior GIS Specialist on this project involving 24 SWPPP plans and ten site assessments for 34 municipal sites owned by the City of Charleston. Responsible for template development, data management, and general location and site maps of all field inspection data.

Asset Data Management, West Virginia American Water Company, WV

Served as Senior GIS Specialist on this project consisting of data discovery, collection, process development, and integration to WVAW GIS System. Served as liaison with field operations to ensure field mark-ups of data were delivered and assimilated into the WVAW GIS System. Developed a field data collection process with GPS technology for more efficient collection and integration.

Distribution System Improvement Charge (DSIC) Inspection, West Virginia American Water Company, WV

Served as Senior GIS Specialist and Project Manager on this project. The DSIC is a surcharge to customer bills that allows an additional funding influx to the client for infrastructure improvement. The client required multiple Resident Project Representatives (RPR's) for inspecting these jobs in the local systems. Workflows and standardization of reporting and electronic submittals of inspection daily reports etc. were developed and supported for this effort. Project management and coordination efforts were done to manage client needs and requirements as they evolved during this initial year of the program.

Various Projects, Chesapeake Energy Corporation, Various Locations, United States: (10/06-10/13)

- **Standardized Work Flows and Data Flows Throughout Field Operations:** Coordinated efforts across seven field offices to streamline and standardize data flows and work flows on how data was received and in what format, how it was processed and loaded, and how the other functional groups tied together in their work flows to ensure no data or communication gaps existed to make the business process more efficient and eliminate duplicated efforts and siloed data so all information is in a common process and data repository.
- **Mobile Field Data Collection:** Coordinated efforts for what business needs and requirements were for a specified dataset. Upon review of those needs, methods were explored, tested, implemented, and training provided for mobile field data collection in a standardized manner for consistency and control of the data received for operations and management needs. Some solutions were completely in-house, and others included third-party software and solutions to achieve the required goals. In reaching the acceptable solutions, considerations for cost, time, training, and ease of use for the end users and field personnel were reviewed for a proper balance to ensure solution adoption and support among the field data collectors, and also management's data needs and cost limitations.
- **Right-of-Way Process and Mapping:** Managed the efforts to standardize the GIS support processes and end products for Pipeline Right-of-Way (ROW). This project entailed working with IT and the ROW group to gain access to their ROW database, and working out a process for automated jobs to update the company's ROW GIS layer each night based upon the previous day's data at end of business. Standard mapping products were then created to relate to that layer with a specialized color code for each parcel status for an up to date view into the project and acquisition status along Pipeline projects in the major shale plays in the U.S. A separate web viewer was also developed with assistance from IT to give a digital view, as well as any hard copy needs the business may have.
- **Regulatory Waters Review with Time Lapse Imagery:** Performed dataset review and data mining to acquire information on waters of the U.S. and streams classifications to compare to third party and agency interpretation of potential impacted waters on pad site construction. In order to do a proper review, several images of the site at various times were acquired thru data mining public information and third-party aerial providers to utilize in heads-up analysis for acceptance or denial of claims on site construction procedures and boundaries.
- **Database Design and Management to Adapt with Growing and Evolving Business Needs:** Coordinated meetings with business and data owners to determine what their needs were, and what level of related information was needed for their goals. During this process, efficiencies were also examined from a GIS perspective to determine how that dataset should be structured, managed, and how it may be integrated with other systems to enhance its usefulness, while guarding against negative results to other business groups or needs. As part of this process, relationships between feature classes, set domain values, and other criteria were determined and implemented to maintain data integrity and asset management protocols to ensure efficiency, accessibility, and accuracy for end user review and analysis. These datasets ranged from pipeline centerline, parcel information, valves, meters, drips, compressor stations, regulators, test stations, rectifiers, etc. On some feature classes, if another software solution was not present for tracking (such as valve inspections, etc.), a related table was created to import forms to maintain that history until a third-party solution was implemented and could easily import without losing historical information.
- **GPS of Pipeline and Facilities:** Developed and managed the program to GPS all pipeline centerlines and associated facilities with the company. This included hardware review and selection, software review and selection, QA/QC process, main database update procedure and data archiving. Metrics were set to track the beginning stage and was periodically reviewed with management to determine current state of data as requested. For pipeline centerlines, line locators were also recommended to ensure proper centerline capture vs. estimating within a right-of-way.



Robert E. "Ed" Lee
Senior Rail Planner

Personal summary

Education:

Ph.D. studies (ABD) in Public Administration and Policy, Portland State University, OR (1994-1998)

MS, Organizational Development, Marylhurst University, Lake Oswego, OR 1994

MBA, Marylhurst University, Lake Oswego, OR, 1993

BS, Management and Communication, Concordia University, Portland, OR 1991

Professional memberships:

American Association of State Highway and Transportation Officials (AASHTO)

- Standing Committee on Rail (SCORT)
- Subcommittee on Highway Transport (SCOHT)

Federal Railroad Administration Gulf Coast Working Group

American Planning Association (past member)

American Society for Public Administration (past member)

MENSA (current member)

Mr. Lee has more than 39 years of experience in transportation policy analysis, planning and projects / contract management. He garnered his years of experience by working with the Oregon Department of Transportation and the Florida Department of Transportation. During his tenure at the Oregon Department of Transportation (ODOT), Mr. Lee led the development of a multimodal corridor planning program. While with the Florida Department of Transportation (FDOT), he led the development of the Freight Mobility and Trade Plan, the Motor Carrier System Plan, and Rail System Plans.

Selected projects

Florida Transportation Plan, FDOT, Statewide, FL:

Acted as lead rail advisor in development of the Department's overall transportation system plan to ensure coordination and consistency between planning/policy directions.

Evansville-Western Railroad, FDOT, Winter Haven Integrated Logistics Center (ILC) Access Road, Winter Haven, FL

Provided Department oversight and project management for development of a \$9M access road from State Route 60 into the ILC at Winter Haven, Florida.

CSXT S-Line Projects, FDOT, Jacksonville, FL and Auburndale, FL

Provided Department oversight and project management for a \$186M package of rail capacity projects that allowed shift of traffic from CSX's A-Line through Orlando, Florida to their S-Line operating between Jacksonville and Auburndale, Florida.

Florida Rail System Plans, FDOT, Statewide, FL

Acted as project manager for development of Department Rail System Plans for the years 2002, 2004, 2006, 2010 and 2015. Provided overall direction, content development and led public involvement activities.

Florida Freight Mobility and Trade Plan, FDOT, State wide, FL

Acted as project manager for development of one of the nation's first truly intermodal state freight plans. Provided overall direction, content development and led public involvement activities.

Florida Motor Carrier System Plan, FDOT, Statewide, FL

Acted as project manager for development of a first-of-its-kind plan for how to facilitate and strengthen Florida's trucking industry while still protecting the state's assets and maintaining system safety. Provided overall direction, content development and led public involvement activities.

Florida Freight Rail Investment Calculator, FDOT, Statewide, FL

Developed program to perform benefit/cost analysis for freight rail projects to determine the public benefits of projects on private rail facilities.

Central Florida Commuter Rail Benefit/Cost Analysis, FDOT, Statewide, FL

Performed analysis of all benefits and costs associated with acquisition of the Central Florida Commuter Rail corridor, SunRail operations/maintenance, equipment acquisition and capital improvements to determine long term return on investment for development of the service.

Central Florida Commuter Rail Corridor Acquisition, FDOT, Orlando, FL

Acted as team member for Department during negotiations for acquisition of the rail corridor that would become SunRail. Focus of activities involved modifications for freight operations both on the corridor and statewide as a result of instituting commuter service in the Orlando area.

Gulf Coast Working Group, FDOT, Statewide, FL

Acted as Florida representative on Federal Railroad Administration (FRA) working group to re-establish Amtrak service between Orlando, Florida and New Orleans, Louisiana. Attended meetings throughout the corridor and reviewed documents produced by the FRA and the Southern Rail Commission. Working group evaluated needed improvements and costs to restore service that was stopped after Hurricane Katrina in 2005.

Southeast Rail Plan, FDOT and FRA, Statewide, FL

Participated as Florida representative in an FRA plan development for the southeastern U.S. to evaluate regional opportunities to improve rail service, both passenger and freight, to this key area of the country.

South Central Florida Express, FDOT, Sebring-Moore Haven 286k upgrade, FL

Provided Department oversight and project management for a track upgrade project on the east side of Lake Okeechobee to allow handling of industry-standard 286,000-pound rail cars.

Norfolk Southern Railroad, Lacy Siding, FDOT, Jacksonville, FL

Provided Department oversight and project management for construction of a siding in the Jacksonville, Florida area to increase yard throughput.

Florida East Coast Railway, FDOT, St. John's River Bridge, Jacksonville, FL

Provided Department oversight and project management for repairs to fender system on main rail bridge crossing the St. John's River in downtown Jacksonville, Florida.

Bay Line Railroad, Bay County Segment 1 Track Upgrade, FDOT, Panama City, FL

Provided Department oversight and project management for a track upgrade project near Panama City, Florida to allow handling of industry-standard 286,000-pound rail cars.

South Central Florida Express, FDOT, Lake Harbor-South Bay 286k upgrade, FL

Provided Department oversight and project management for a track upgrade project on the south side of Lake Okeechobee to allow handling of industry-standard 286,000-pound rail cars.

Florida East Coast Railway, Indian River-Frontenac double-track, FDOT, Indian River, FL

Provided Department oversight and project management for construction of a second track to increase rail line capacity by providing passing opportunities.

Florida Central Railroad, Orlando-Plymouth 286k upgrade, FDOT, Orlando, FL

Provided Department oversight and project management for a track upgrade project for the eastern-most segment of the railroad to allow handling of industry-standard 286,000-pound rail cars.

Florida Northern Railroad, Newberry-Red Level 286k upgrade, FDOT, Newberry, FL

Provided Department oversight and project management for a track upgrade project to the Red Level coal-fired power plant to allow handling of industry-standard 286,000-pound rail cars.

Bay Line Railroad, Majette Passing Track, FDOT, Panama City, FL

Provided Department oversight and project management for addition of a passing siding north of Panama City, Florida to increase passing opportunities.

First Coast Railroad, Amelia River Bridge, FDOT, Fernandina Beach, FL

Provided Department oversight and project management for repairs to swing-span rail bridge, bridge approached and bumper system to maintain a critical rail link between paper mills in Fernandina Beach, Florida and the national rail system.

Florida East Coast Railway, Spruce Creek Siding Extension, FDOT, FL:

Provided Department oversight and project management for improvements to lengthen existing rail siding to 10,000' in length.

Florida Rail Safety Inspection Program, FDOT, Statewide, FL

Managed crew of eight rail safety inspectors to ensure compliance with FRA safety regulations. Florida's program during this period was rated as #1 or #2 nationally despite being a mid-sized program. Inspectors evaluated track, signal/train control, operating practices, motive power/equipment, and hazardous material handling in cooperation with the FRA rail inspection program.

Florida Transportation Trends and Conditions Report, FDOT, Statewide, FL

Acted as principal author of statewide transportation trends and conditions reporting to inform general policy decision making.



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Paul Worley, CPM

Senior Advisor and QA/QC

Personal summary

Education: BA, Campbell University, 1988

Mr. Worley possesses thorough knowledge of the rail industry and freight, intermodal, and passenger modes and their interrelationships. Paul has over 29 years of innovative and outcome-focused public service experience and skills in the management of state and federal rail programs and safety initiatives, using effective leadership, advocacy, and higher-level thinking to develop rail solutions and produce collaborations among local, state, and federal governments.

NC State Ports Authority (NCSPA) Wilmington Terminal Intermodal Facility TIGER Grant Application: Provided project management and coordination for an \$11.8M grant application and supporting documents for a total \$22.2M program of capital improvements to design and construct an intermodal rail yard, laydown area, siding tracks, a run-around track and upgrade existing terminal access tracks for additional rail and container volume, velocity, and efficiency.

Carolina Connector (CCX) Transportation and Freight Master Plan, NCDOT Rail Division: Executive management of a study to prepare a strategic and master plan for the area around the CCX site in Rocky Mount, NC involving rail connections to the port, other inland terminals, highway connections, and markets including industries, distribution centers, and agri-business.

2015 Comprehensive State Rail Plan, NCDOT Rail Division: Executive management of the statewide Rail Plan update to establish a public vision for the state's rail transportation mode, supporting goals and policies to improve passenger and freight use. The plan analyzed and prioritized rail corridors, programs, improvement projects and assessed program funding options. In addition to providing a current inventory of the rail system, the plan identified trends, markets, and both near and long-term needs.

Eastern Infrastructure Improvement Studies, NCDOT Rail Division. Led effort to evaluate infrastructure improvements which promote job creation and economic development of the Global TransPark as an inland terminal, including, specialized transloading equipment, and refrigerated and dry storage facilities. Study also assessed highway and rail infrastructure improvements or service scenarios that improve access and throughput to the Global TransPark and North Carolina State Port Authority Morehead City Terminal.

1990 State Rail Plan, NCDOT, Rail Division. Project manager of the NC State Rail Plan update, which focused on corridor preservation and improvements to short line railroads. The Plan analyzed and prioritized rail corridors, programs, improvement projects and assessed program funding options.



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Marcus Arnold, AICP

Technical Advisor

Personal summary

Education: University of Illinois, B.A. Urban and Regional Planning, 2001

Registrations: Certified Planner, American Institute of Certified Planners, 2012

Mr. Arnold has 16 years of diverse transportation planning experience in the private and public sectors, specializing in the advancement of new and expanded rail and bus transit systems, throughout the U.S. He is responsible for managing multimodal transportation planning initiatives in the Atlanta region that include corridor studies, alternatives analyses, system planning, station area planning, facilities planning and design, environmental planning. Mr. Arnold is a strategic planner in developing innovative solutions for problem solving, while managing consultants, subconsultants and staff, and working in collaborative team environments with clients and colleagues to accomplish goals.

Atlanta Streetcar System: Senior Transit Project Manager responsible for planning, project development and implementation of the Atlanta Streetcar system along the Atlanta Beltline and throughout the City of Atlanta. Overall duties include managing project budgets, financials, schedules, consultants and various work tasks.

Cincinnati Streetcar Transit Program: Task leader responsible for the development of the Transportation and Maintenance Operations Plan (TMOP) and operations and maintenance (O&M) cost estimates.

District 5 Central Florida Commuter Rail Transit Program, Florida Department of Transportation: Lead consultant in preparing rail fleet and bus fleet management plans, transportation and maintenance operations plan, preliminary train schedules, run times and fare policy plan implementation.

SunRail Florida Commuter Rail Transit Program, Florida Department of Transportation: Lead consultant in preparing rail fleet and bus fleet management plans, transportation and maintenance operations plan, preliminary train schedules, run times and fare policy plan implementation.

WAVE Streetcar Program: Lead planner on the Environmental Assessment, conducting an O&M cost analysis to initiate the streetcar project into the FTA Small Starts Project Development process.

Sacramento Regional Transit Downtown to Airport Transitional Analysis: Principal planner in developing the operations and O&M strategies to advance the project through the FTA New Starts process.



David Ewing

Rail Policy Analyst

Personal summary

Education: Ph.D. (ABD), American Studies, George Washington University, MA, Public and International Affairs, George Washington University, BA, University of Mississippi, Political Science

Mr. Ewing is an experienced transportation expert with over 46 years of combined experience. He specializes in intergovernmental relations, education and outreach efforts, particularly for transportation corridors. Mr. Ewing has provided clients with advice, counsel, and strategic insight in the areas of federal legislation and policy analysis. His work with states and transportation related associations, in a variety of capacities, has enabled him to provide clients with tactical insight and perspective based on programmatic, legislative, and strategic expertise from a state, federal, and industry perspective.

Policy Analysis, Federal Transportation Consultant Services:

Worked with a broad range of public and private sector clients in the transportation sector. Specialized in intergovernmental relations, education and outreach efforts, particularly for transportation corridors, he also provided his clients with advice, counsel, and strategic insight in the areas of federal legislation as well as policy analysis. Headquartered in the Washington, D.C. area, and has a great sense of "inside the beltway" activities and combines that knowledge with over 35 years' experience working with states and transportation related associations, in a variety of capacities, enabled him to provide his clients with tactical insight and perspective based on programmatic, legislative and strategic expertise from a state, federal and industry perspective.

CONEG Policy Research Center, Inc., Coalition of

Northeastern Governors: Project Director for Transportation Responsible for managing the activities of the High-Speed Rail Task Force, including identification and development of region-wide policies and programs which address high speed ground transportation in the Northeast Corridor and its feeder lines, as well as related regional rail needs. Primary activities involved: providing staff support to the Task Force; developing and implementing existing and new program initiatives; monitoring related activities of participating states and other state, regional, federal, and international programs; representing the Task Force to all interested parties throughout the US, including congressional, federal agency and private sector officials; preparation of annual operating programs, grant requests and budget justification; and maintenance of the financial integrity of the program.



Jon Dees, AICP

Data Analysis

Personal summary

Education: Master of City and Regional Planning, University of North Carolina at Chapel Hill, 2010, BA, Furman University, 2007

As a Planner for Simpson Engineers & Associates, P.C., Jon Dees has a wide range of experience in freight and passenger rail planning, including statewide rail freight programs, rail passenger service planning, rail safety initiatives and many other diverse projects. Mr. Dees' expertise includes freight planning and forecasting, project prioritization, grant applications and management, and technical support for mapping and media production needs. He has worked on rail preservation programs, TIGER grant applications, statewide grant programs, and NCDOT's Strategic Transportation investments initiative.

Embedded Consultant, NCDOT Rail Division: Specializes in technical insights into railroad operations, including passenger service planning, freight service planning, and program and project management:

- Developed and deconstructed financial and operating models for freight and passenger service. Creation of standard data sets and models for decision-making analysis, such as branch line/short line viability, passenger service viability and operating costs and revenues, and freight service operating costs and revenues, including creation of Surface Transportation Board Carload Waybill Sample data tools and analytical models.
- Created project prioritization criteria for capital investment and state of good repair funding programs at the Rail Division. This task included creation of heuristic models for abstract concepts like rail capacity and simple metrics such as gross weight limit improvements.
- Managed projects and programs for passenger and freight improvements, such as grant programs from \$0.1 million to \$25 million or more per project. Developed screening tools to assess feasibility of locally requested improvements to rail right of way.

Intern, Town of Rolesville, NC: Assisted the Planning Director with town planning, including ordinances, current development, and code enforcement.



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James Christopher Rooney, CFA

Advisor and Data Analysis QA/QC

Personal summary

Education: Chartered Financial Analyst, MBA, Finance and Accounting, University of Chicago, BA, Economics, Dartmouth College

Mr. Rooney has 35 years of experience in transportation and financial management. As Deputy Railway Administrator of the US Department of Transportation, Mr. Rooney was a government spokesman before Congress and other government bodies and authored government positions of transport regulation and coordination. He led the federal government technical support team for the sale of US government owned Conrail to the private sector. He has advised many railroads, railroad clients and federal, state and local transportation agencies on strategic planning, economic, contractual, and financial issues in the USA, Canada, Europe, Latin American, Asia, and Africa.

Independent Financial Advisor, US DOT Federal Railroad Administration, Office of Rail Development: Functioned as an Independent Financial Advisor concerning applications for financing under the US DOT Rail Rehabilitation and Infrastructure Finance Program. Among applications analyzed are:

- Amtrak application for purchase of US\$563 million Siemens locomotives
- Florida East Coast Railway LLC application for \$500 million to finance capital investment and refinance high cost debt
- Kansas City Southern \$56 million locomotives and \$100 million track rehabilitation financing
- Cedar Rail Holdings \$2.5 billion new rail line extension
- Dakota Minnesota & Eastern \$234 million track rehabilitation
- Georgia & Florida RR \$25 million rail line rehabilitation

Consultant, NCDOT Rail Division: Provided advice and analysis for the North Carolina State Rail Program concerning investment capital programs and operating arrangements with freight railways and with Amtrak as operator of the intrastate rail passenger.

Consultant, Rail Operating Entity: For a proposed Rail Operating Entity, examined the financial and operational feasibility of (re)constructing a rail line to reach the Powder River Basin coal producing area. This study encompassed demand assessment operational simulation and translation operating results and investment plans into financial simulation results.



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Lawrence L. Ratcliffe

Strategic Rail Planning Advisor

Personal summary

Education: MS, Industrial Engineering and Operations Research, Purdue University, BS, Mathematics, Denison University

Mr. Ratcliffe is an innovative transportation professional with over 40 years in the railroad industry and expertise in broad leadership, managerial, and technical experience with expertise in strategy, rail networks, capital management, service improvement, cost reduction, planning, analytics, and problem solving.

Strategic Planning and Network and Capacity Planning,

CSX Transportation: Served as the Director of Strategic Planning and Assistant Vice President for Network Capacity Planning for CSX Transportation in Jacksonville, FL> Responsible for developing network strategy, annual network capital budget, and specific projects to strengthen the rail network, leverage network benefits, and position infrastructure for the future.

- Developed and implemented concept of system network strategy. Strategy incorporated capacity improvements and capital requirements necessary to position CSXT for future markets and growth.
- Developed and managed network capital budget ranging from \$150 million to \$250 million annually. Identified, developed, prioritized, and designed network capacity projects on 21,000-mile network.
- Developed forums and agendas for strategic alliances and COO meetings with other rail carriers resulting in joint projects and benefits. Meetings set the stage for improved intercarrier relationships.
- Developed process of network architecture, new analytics, and systemic structure for identifying network requirements.
- Represented CSXT on the intercarrier Chicago Planning Group. Instrumental in restructuring the Chicago Transportation Coordination Office, reprioritizing Chicago terminal capital projects, and creating 7/24 operations office for the Chicago terminal.
- Developed strategy and analysis to reduce least productive network assets, shrink network size by 20% and refocus capital spending.
- Led team in development of system terminal strategy. Received Chairman's Award for Excellence. Architected specific network transactions to maximize cost, capital reductions, and revenue growth. Developed and documented public benefits for successful \$100 million TIGER grant application.

5 Business and Staff Certifications

CERTIFICATE OF *Authorization*

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

*The West Virginia State Board of Registration for Professional Engineers
having verified the person in responsible charge is registered in
West Virginia as a professional engineer for the noted firm, hereby certifies*

MOTT MACDONALD, LLC

C02536-00

Engineer in Responsible Charge: GARY D FACEMYER - WV PE 008287

*has complied with section §30-13-17 of the West Virginia Code governing
the issuance of a Certificate of Authorization. The Board hereby notifies you of its
certification with issuance of this Certification of Authorization for the period of:*

January 1, 2018 - December 31, 2019

providing for the practice of engineering services in the State of West Virginia.

IF YOU ARE REQUIRED TO REGISTER WITH THE SECRETARY OF STATE'S OFFICE,
PLEASE SUBMIT THIS CERTIFICATE WITH YOUR APPLICATION.



IN TESTIMONY WHEREOF, THE WEST VIRGINIA STATE BOARD OF
REGISTRATION FOR PROFESSIONAL ENGINEERS HAS ISSUED THIS COA
UNDER ITS SEAL AND SIGNED BY THE PRESIDENT OF SAID BOARD.

BOARD PRESIDENT



STATE OF WEST VIRGINIA
 State Tax Department, Revenue Division
 P. O. Box 2666
 Charleston, WV 25330-2666



Earl Ray Tomblin, Governor

Mark W. Matkovich, Tax Commissioner

HATCH MOTT MACDONALD LLC
 201 PENNSYLVANIA AVE 4TH FLOOR
 CHARLESTON WV 25302

Letter Id: L1763586624
 Issued: 07/09/2014
 Account #: 1004-9027



00002102010000

RE: Business Registration Certificate

The West Virginia State Tax Department would like to thank you for registering your business. Enclosed is your Business Registration Certificate. This certificate shall be permanent until cessation of business or until suspended, revoked or cancelled. Changes in name, ownership or location are considered a cessation of business; a new Business Registration Certificate and applicable fees are required. Please review the certificate for accuracy.

This certificate must be prominently displayed at the location for which issued. Engaging in business without conspicuously posting a West Virginia Business Registration Certificate in the place of business is a crime and may subject you to fines per W.Va. Code § 11-9.

When contacting the State Tax Department, refer to the appropriate account number listed on the back of this page. The taxes listed may not be all the taxes for which you are responsible. Account numbers for taxes are printed on the tax returns mailed by the State Tax Department. Failure to timely file tax returns may result in penalties for late filing.

Should the nature of your business activity or business ownership change, your liability for these and other taxes will change accordingly.

To learn more about these taxes and the services offered by the West Virginia State Tax Department, visit our web site at www.wvtax.gov.

Enclosure

atL006 v.4

**WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE**

ISSUED TO:
**HATCH MOTT MACDONALD LLC
201 PENNSYLVANIA AVE 4TH FLOOR
CHARLESTON, WV 25302-0000**

BUSINESS REGISTRATION ACCOUNT NUMBER: 1004-9027

This certificate is issued on: **07/9/2014**

*This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code*

*The person or organization identified on this certificate is registered
to conduct business in the State of West Virginia at the location above.*

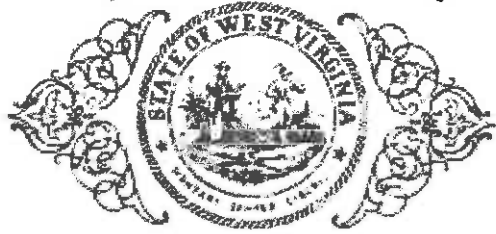
This certificate is not transferrable and must be displayed at the location for which issued

This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

State of West Virginia



Certificate

*I, Natalie E. Tennant, Secretary of State of the
State of West Virginia, hereby certify that*

the attached true and exact copy of the Articles of Amendment to the Articles of Organization of
HATCH MOTT MACDONALD, LLC

are filed in my office, signed and verified, as required by the provisions of West Virginia Code
§31B-2-204 and conform to law. Therefore, I issue this

CERTIFICATE OF AMENDMENT TO THE CERTIFICATE OF AUTHORITY

changing the name of the limited liability company to

MOTT MACDONALD, LLC



*Given under my hand and the
Great Seal of the State of
West Virginia on this day of
May 26, 2016*

Natalie E. Tennant

Secretary of State

(Handwritten mark)

FILED

MAY 20 2016

Natalie E. Tennant
Secretary of State
1900 Kanawha Blvd E
Bldg 1, Suite 157-K
Charleston, WV 25305

IN THE OFFICE OF
SECRETARY OF STATE



Penney Barker, Manager
Corporations Division
Tel: (304)558-8000
Fax: (304)558-8381
Website: www.wvsos.com
E-mail: business@wvsos.com

Office Hrs: Monday - Friday
8:30 a.m. - 5:00 p.m. ET

FILE ONE ORIGINAL
(Two if you want a filed
stamped copy returned to you)
FEE: \$25.00

**WV APPLICATION FOR AMENDED
CERTIFICATE OF AUTHORITY OF A
LIMITED LIABILITY COMPANY**

**** In accordance with the provisions of the WV Code, the undersigned limited liability company ****
hereby applies for an Amended Certificate of Authority and submits the following statement:

1. Name under which the corporation was authorized to transact business in WV: Hatch Mott MacDonald, LLC

2. Date Certificate of Authority was issued in WV: 5/4/2006

3. Change of Name Information or Text of Amendment: (If changing business name, you must attach one Certified Copy of the Name Change as filed in the home State of original organization.)

Change of Name From: Hatch Mott MacDonald, LLC

To: Mott MacDonald, LLC

Name the organization elects to use in WV: _____
(Due to home State name not being available)

Other amendment (Attach additional pages if necessary.):

4. Contact information. (This is optional, however, if there is a problem with the filing, listing a contact person and phone number may avoid having to return or reject the document.)

Mark G. O'Connor (973) 379-3400

Contact Name Phone Number

Business e-mail address: Mark.Oconnor@mottmac.com

5. Signature information (See below **Important Legal Notice Regarding Signature**): Not Applicable Person

Print Name of Signer: Mark.Oconnor@mottmac.com Title/Capacity: Asst. Secy Secretary

Signature: Mark O'Connor Date: May 18, 2016

**Important Legal Notice Regarding Signature:* Per West Virginia Code §31B-2-209. Liability for false statement in filed record. If a record authorized or required to be filed under this chapter contains a false statement, one who suffers loss by reliance on the statement may recover damages for the loss from a person who signed the record or caused another to sign it on the person's behalf and knew the statement to be false at the time the record was signed.

5/26

Delaware

The First State

Page 1

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "HATCH MOTT MACDONALD, LLC", CHANGING ITS NAME FROM "HATCH MOTT MACDONALD, LLC" TO "MOTT MACDONALD, LLC", FILED IN THIS OFFICE ON THE TWENTIETH DAY OF MAY, A.D. 2016, AT 4:27 O'CLOCK P.M.




Jeffrey W. Bullock, Secretary of State

786567 8100
SR# 20163707306

You may verify this certificate online at corp.delaware.gov/authver.shtml

Authentication: 202378367
Date: 05-25-16

State of Delaware
Secretary of State
Division of Corporations
Delivered 04:27 PM 05/20/2016
FILED 04:27 PM 05/20/2016
SR 20163530618 - File Number 786567

STATE OF DELAWARE CERTIFICATE OF AMENDMENT

1. Name of Limited Liability Company: Hatch Mott MacDonald, LLC
2. The Certificate of Formation of the limited liability company is hereby amended as follows:

The company has changed its name from Hatch Mott MacDonald, LLC to Mott MacDonald, LLC.

IN WITNESS WHEREOF, the undersigned have executed this Certificate on the 18th day of May, A.D. 2016.

By: Mark G. O'Connor
Authorized Person(s)

Name: MARK G. O'CONNOR
Print or Type

6 Required Forms



Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

State of West Virginia
 Centralized Expression of Interest
 02 - Architect/Engr

Proc Folder: 401701

Doc Description: EO: to select an engineer firm for State Rail Plan

Proc Type: Central Purchase Order

Date Issued	Solicitation Class	Solicitation No	Version
2018-01-11	2018-02-13 13:30:00	CEO: 0804 RMA1800000001	1

BID RECEIVING LOCATION

BID CLERK
 DEPARTMENT OF ADMINISTRATION
 PURCHASING DIVISION
 2019 WASHINGTON ST E
 CHARLESTON WV 25305
 US

VENDOR

Vendor Name, Address and Telephone Number:

Mott MacDonald, LLC
 201 Pennsylvania Avenue, Suite 400
 Charleston, WV 25302-2315

FOR INFORMATION CONTACT THE BUYER

Jessica S Chambers
 (304) 556-0248
 jessica.s.chambers@wv.gov

Signature X

FEIN # 16-1006700

DATE 02/13/2018

All offers subject to all terms and conditions contained in this solicitation

ADDITIONAL INFORMATION:

Expression of Interest

The West Virginia Purchasing Division is soliciting Expression(s) of interest for the Agency, The West Virginia Rail Authority from qualified firms to provide architectural/engineering services to update The Federal Railroad Administration (FRA) Compliant State Rail Plan, per the bid requirements, specifications, and terms and conditions as attached hereto.

* Online submission of Expression of Interest are Prohibited.

INVOICE TO	SHIP TO
STATE RAIL AUTHORITY 120 WATER PLANT DR MOOREFIELD WV26836 US	STATE RAIL AUTHORITY (DBA) SOUTH BRANCH VALLEY RAILROAD 120 WATER PLANT DR MOOREFIELD WV 26836 US


Line	Comm Ln Desc	Qty	Unit Issue
1	WV Rail Plan Update		

Comm Code	Manufacturer	Specification	Model #
94101608			

Extended Description :

Engineering firm to complete an updated WV State Rail Plan

DESIGNATED CONTACT: Vendor appoints the individual identified in this Section as the Contract Administrator and the initial point of contact for matters relating to this Contract.



(Name, Title)
Eric Bess, Deputy Project Manager

(Printed Name and Title)
201 Pennsylvania Avenue, Ste. 400, Charleston WV 25302-2315

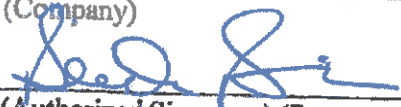
(Address)
304.356.3010/304.357.9222

(Phone Number) / (Fax Number)
Eric.Bess@mottmac.com

(email address)

CERTIFICATION AND SIGNATURE: By signing below, or submitting documentation through wvOASIS, I certify that I have reviewed this Solicitation in its entirety; that I understand the requirements, terms and conditions, and other information contained herein; that this bid, offer or proposal constitutes an offer to the State that cannot be unilaterally withdrawn; that the product or service proposed meets the mandatory requirements contained in the Solicitation for that product or service, unless otherwise stated herein; that the Vendor accepts the terms and conditions contained in the Solicitation, unless otherwise stated herein; that I am submitting this bid, offer or proposal for review and consideration; that I am authorized by the vendor to execute and submit this bid, offer, or proposal, or any documents related thereto on vendor's behalf; that I am authorized to bind the vendor in a contractual relationship; and that to the best of my knowledge, the vendor has properly registered with any State agency that may require registration.

Mott MacDonald, LLC

(Company)


(Authorized Signature) (Representative Name, Title)
Glenda M. Gibson, PE, Senior Vice President

(Printed Name and Title of Authorized Representative)
02/13/2018

(Date)
919.552.2253 / 919.552.2254

(Phone Number) (Fax Number)

STATE OF WEST VIRGINIA
Purchasing Division
PURCHASING AFFIDAVIT

CONSTRUCTION CONTRACTS: Under W. Va. Code § 5-22-1(i), the contracting public entity shall not award a construction contract to any bidder that is known to be in default on any monetary obligation owed to the state or a political subdivision of the state, including, but not limited to, obligations related to payroll taxes, property taxes, sales and use taxes, fire service fees, or other fines or fees.

ALL OTHER CONTRACTS: Under W. Va. Code §5A-3-10a, no contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and: (1) the debt owed is an amount greater than one thousand dollars in the aggregate; or (2) the debtor is in employer default.

EXCEPTION: The prohibition listed above does not apply where a vendor has contested any tax administered pursuant to chapter eleven of the W. Va. Code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Employer default" means having an outstanding balance or liability to the old fund or to the uninsured employers' fund or being in policy default, as defined in W. Va. Code § 23-2c-2, failure to maintain mandatory workers' compensation coverage, or failure to fully meet its obligations as a workers' compensation self-insured employer. An employer is not in employer default if it has entered into a repayment agreement with the Insurance Commissioner and remains in compliance with the obligations under the repayment agreement.

"Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

AFFIRMATION: By signing this form, the vendor's authorized signer affirms and acknowledges under penalty of law for false swearing (W. Va. Code §61-5-3) that: (1) for construction contracts, the vendor is not in default on any monetary obligation owed to the state or a political subdivision of the state, and (2) for all other contracts, that neither vendor nor any related party owe a debt as defined above and that neither vendor nor any related party are in employer default as defined above, unless the debt or employer default is permitted under the exception above.

WITNESS THE FOLLOWING SIGNATURE:

Vendor's Name: Mott MacDonald

Authorized Signature: [Signature]

Date: 02/13/2018

State of North Carolina

County of Wake, to-wit:

Taken, subscribed, and sworn to before me this 13th day of February, 2018.

My Commission expires February 24, 2018.

AFFIX SEAL HERE

NOTARY PUBLIC [Signature]

Purchasing Affidavit (Revised 07/07/2017)