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WV Purchasing Division



West Virginia Division of Public Transit
Professional Services for
State Safety Oversight Program
Solicitation No. CRFP 0805 PTR1800000001



Transportation Resource Associates, Inc.
1608 Walnut Street, Suite 1602
Philadelphia, PA 19103
P.215-546-9110 | F.215-546-9120
Daniel T. Hauber, VP
daniel.hauberetraonline.com

 8/15/17

1608 Walnut Street
Suite 1602
Philadelphia, Pa. 19103
215-546-9110
Fax: 215-546-9120
www.traonline.com



Transportation Resource Associates, Inc.
Consultants to the Transportation Industry

Melissa Pettrey, Senior Buyer
West Virginia Department of Public Transit
2019 Washington Street East
Charleston, WV 25305-0130

August 17, 2017

Re: Proposal Response for Professional Services for State Safety Oversight – CRFP 0805
PTR1800000001

Dear Ms. Melissa Pettrey:

On behalf of TRA, thank you for the opportunity to offer the following proposal for the West Virginia Department of Public Transit (WVDPT) State Safety Oversight (SSO) services project. Our team is ready to help WVDPT ensure the ongoing success of its SSO program, through an engaged, proactive, and professional work approach.

TRA is a professional consulting firm specializing in transit safety and security, including SSO, new public transit system start-ups, system safety and security certification requirements, transit operations, management, planning, maintenance, and regulatory compliance. TRA has been in business since 1990, and during that time, many of its efforts have focused on rail fixed guideway SSO program administration and development.

As an organization, TRA has worked (and is currently working) with a number of SSO Agencies and Rail Transit Agencies. No other firm offers TRA's expertise in developing new SSO programs, helping existing SSO agencies to meet new regulatory requirements, or administering innovative SSO activities that exceed the minimum requirements and deliver demonstrable results in terms of system safety and security. TRA provides its clients with unparalleled expertise across all aspects of implementing the Federal Transit Administration (FTA) SSO rule (currently 49 CFR Part 659). TRA has also emerged as an industry leader in assisting clients with the transition to 49 CFR Part 674, the Moving Ahead for Progress in the 21st Century Act regulation (MAP-21.)

TRA recognizes the importance WVDPT's MAP-21 Certification Work Plan (CWP). The TRA team is intimately familiar with the FTA MAP-21 program requirements and the development of the CWP. In regards to Attachment D of the RFP, TRA is more than prepared to support and assist the WVDPT with the implementation of its CWP. TRA anticipates that the execution of the CWP will be fundamental to WVDPT's SSO program, and as such, TRA will coordinate with WVDPT to ensure that the CWP meets all FTA needs.

TRA also recognizes that WVDPT SSO program deserves a thoughtfully executed work approach in order to advance and expand its existing work to meet the new regulatory requirement. Therefore, TRA will apply its proven approaches for conducting in-depth SSO activities, such as ongoing Triennial Audits, ongoing corrective action plan and safety data monitoring, and conducting spot checks or other on-site audit activities outside of the Triennial Audit schedule. As with all clients, TRA will work with WVDPT to refine the approach to ensure it meets all WVDPT goals and objectives.

Pragmatic approaches to complex transportation issues

In addition, our team members have been chosen to be particularly responsive to accidents, hazards, and inquiries. When unforeseen situations occur, TRA will work closely with WVDPT to ensure a quick and appropriate response. One of our team members is based in Pittsburgh, PA, allowing us to be in Morgantown in less than two hours; while other team members can mobilize and arrive within hours. All team members are reachable via mobile phone, 24/7, to initiate accidents and incident response.

TRA recognizes WVDPT's desire to work closely both with WVU and with its SSO consultant. As shown in our proposal, we have worked with many different SSO programs. We have found that the most effective programs are the ones that have an ongoing, close engagement with all relevant stakeholders. While in the short term, this may appear to be more effort. However, we find that it is more efficient for several reasons, including:

- First and foremost, greater safety involvement by all parties helps to minimize the possibility of accidents
- Audits, hazard inquiries, and accident investigations are easier to complete because the SSO program is already aware of organizational basics, system layout, and similar factors
- When outside agencies audit or inquire about SSO or transit safety programs, all parties are ready to answer quickly and consistently

Our team, and the entire TRA organization, are committed to maintaining a very effective and professional relationship with WVDPT, and helping the State do the same with WVU. Based on 26 years of SSO experience, we can say conclusively that this approach is preferable from a safety perspective.

TRA is confident that its team's knowledge regarding SSO Programs will provide WVDPT with the highest level of responsiveness and technical expertise to implement an effective and efficient SSO program. Working together, TRA will ensure WVDPT's oversight program meets and exceeds all expectations for rail safety and emergency preparedness.

As a Vice President at TRA, I will be the main point of contact for the proposal process. If I can be of assistance, please feel free to reach me via email at daniel.hauber@traonline.com or by phone at 267-908-8110 or 609-320-8111.

Sincerely,



Daniel Hauber
Vice President
Transportation Resource Associates, Inc.



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Attachment A: Vendor Response

Section 4, Subsection 4.3

Provide a response regarding the following: firm and staff qualifications and experience in completing similar projects; references; copies of any staff certifications or degrees applicable to this project; proposed staffing plan; descriptions of past projects completed entailing the location of the project, project manager name and contact information, type of project, and what the project goals and objectives were and how they were met.

Firm Background and Qualifications

Founded in 1990, Transportation Resource Associates, Inc. (TRA) is a premier specialty consulting firm built to serve the transportation industry with deep experience, unparalleled expertise, and practical work products. As can be seen in the matrix below, TRA specializes in State Safety Oversight (SSO) projects similar to West Virginia Division of Public Transit's (WVDPT) program. Throughout the firm's history, its professionals have advised on, assessed, and built operations, maintenance, safety, and security programs for every major transit system in the United States. Our work has ranged from major multimodal systems in Boston, New York, Chicago, Washington, Philadelphia, and San Francisco, to mid-sized agencies throughout the country, to some of the smallest rail fixed guideway systems in the US, such as automated people movers and inclined planes. TRA supports Federal and State transportation and public safety agencies, port and bridge authorities, and the American Public Transportation Association.

TRA's SSO projects in Florida, Michigan, and the Port Authority of New York and New Jersey's two locations, include automated people movers. As such, our staff is particularly adept at assessing and overseeing unique technologies like the West Virginia University (WVU) Personal Rapid Transit (PRT) system. Our TRA teams are also very skilled at scaling SSO operations with smaller systems, helping such systems (and their SSO representatives) to integrate safety oversight at their agencies.

TRA's principals are seasoned professionals with extensive experience in the transportation industry, previously serving as leaders in transit agencies and as experts engaged in critical transit policies and programs. They bring in-depth and practical experience to each assignment, and are committed to highly responsive and personal service that satisfies project objectives and client needs. TRA's engineers, specialists, legal experts, and analysts possess diverse backgrounds in public transportation and other fields, coupled with rigorous and comprehensive experience supporting critical projects for the firm's transit clients. TRA's key personnel possess wide knowledge of modern transportation practices and policies, as well as the elements that make each metropolitan transit system unique. This unique combination of experience and expertise allows TRA to provide WVDPT and WVU with practical guidance that is grounded in a sound understanding of transportation fundamentals and cutting-edge best practices.



The TRA team comprises professionals with specialized expertise across a number of fundamental areas of interest for commuter rail, heavy rail, light rail, streetcar, diesel bus, hybrid and alternative fuels bus, trolley bus, paratransit, and maritime modes, including:

- Safety programs, planning, and audits
- Rail SSO
- Safety and security certification
- Transportation industry standards development
- Hazard analysis
- Independent safety assessments
- Management and departmental needs assessments
- Reviews of interdepartmental coordination and planning
- Operating and maintenance cost analyses
- Vehicle and infrastructure needs assessments and planning
- Vehicle and infrastructure condition reviews and assessments
- Maintenance and inspection plans and procedures
- Operating rules and procedures
- Rule compliance
- Training programs

(Please note that because some of our proposal responses overlap, some materials are presented in later sections. Such materials include more details on the project team, staff certifications, and project experience.)

State Safety Oversight Experience

TRA has extensive experience in SSO and transit system safety and security. TRA is the industry leader in providing SSO services, and our company's personnel have SSO as a primary focus of their work. Our project experience includes:

- Twenty-six years of State Safety Oversight experience in 24 total jurisdictions – more than any other contractor
- Current projects in 14 SSO jurisdictions (and ten additional, past SSO projects), more than all other contractors combined, including recent and on-going SSO work in Washington, DC, Pennsylvania, Minnesota, Michigan, Utah, Maryland, Florida, Texas, Oregon, Virginia, and at the Port Authority of New York and New Jersey (PANYNJ)
Note: Florida, Michigan, and PANYNJ projects include automated people movers
- Experience in all phases of SSO programs, including formulating programs, writing standards and procedures, drafting enabling legislation, and helping SSO programs comply with the latest Federal Transportation Administration (FTA) rules and guidance
- Accident, incident, and unacceptable hazardous condition investigations
- Support to State Safety Oversight Agencies (SSOAs) during FTA audits, National Transportation Safety Board (NTSB) investigations, and Government Accountability Office audits
- In-depth safety, security, operations, and maintenance reviews
- Security technical assistance to the FTA and to transit systems
- Presentations at FTA-sponsored annual SSO conferences



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The table below presents our current and prior experience with transit agencies across the United States and the SSO services that we provided them.

| TRA Rail SSO Consulting Projects Includes Current & Most Recent Projects | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------|------------------------------------|------------|-------------------------|---------------------------|-------------------------|
| SSO Program | New SSO Startup | SSPS Development/ Revision | Transition assistance from 659/674 | FTA Audits | Accident Investigations | On-Site Triennial Reviews | Corrective Action Plans |
| Pennsylvania Department of Transportation (PennDOT) Pennsylvania Rail Transit Safety Review Program (RTSRP) 1991-Present | √ | √ | √ | √ | √ | √ | √ |
| Tri-State Oversight Committee (TOC) 2003-Present | | √ | √ | √ | √ | √ | √ |
| Minnesota Department of Public Safety (DPS) 2005-Present | √ | √ | √ | √ | √ | √ | √ |
| Maryland Department of Transportation (MDOT) 2001-Present | | √ | √ | √ | √ | √ | √ |
| Oklahoma Department of Transportation (ODOT) 2017-Present | √ | √ | √ | | | √ | |
| Illinois Department of Transportation (IDOT) 2016-Present | √ | √ | √ | √ | √ | √ | √ |
| Chicago Regional Transportation Authority (RTA) 1998-2016 (SSOA phased out) | | √ | | √ | √ | √ | √ |
| Florida Department of Transportation (FDOT) 2005-Present | | √ | √ | √ | √ | √ | √ |
| Port Authority of New York and New Jersey (PANYNJ) | √ | √ | √ | | √ | √ | √ |



| TRA Rail SSO Consulting Projects Includes Current & Most Recent Projects | | | | | | | |
|--------------------------------------------------------------------------------------------------------|-----------------|----------------------------|------------------------------------|------------|-------------------------|---------------------------|-------------------------|
| SSO Program | New SSO Startup | SSPS Development/ Revision | Transition assistance from 659/674 | FTA Audits | Accident Investigations | On-Site Triennial Reviews | Corrective Action Plans |
| 2004-Present | | | | | | | |
| Utah Department of Transportation (UDOT) 1998-Present | √ | √ | √ | √ | √ | √ | √ |
| Missouri Department of Transportation (MoDOT) 2015-Present | √ | √ | √ | | √ | | |
| Michigan Department of Transportation (MDOT) 2010-Present | | √ | √ | | √ | √ | √ |
| Oregon Department of Transportation (ODOT) 2005-Present | | | √ | | | √ | √ |
| Washington State Department of Transportation (WSDOT) 2003-2016 | | | | | √ | √ | √ |
| Texas Department of Transportation (TxDOT) 2008-Present | | | | | √ | √ | √ |
| Metrorail (DC) Safety Commission (MSC) Organizational Management 2016-Present (In planning stage only) | √ | | √ | | | | |



Section 4, Subsection 4.4.1

The Proposer should clearly identify the Proposer's experience in providing personnel to perform the services requested in the RFP for the past 5 years. The description should include a list of agencies with which the Proposer has served or is currently serving.

SSO projects are a significant area of concentration for TRA. With the exception of the three administrative personnel, all TRA consulting staff members (27 total) have been actively involved in SSO projects within the last five years. Nearly every TRA consultant is actively engaged in multiple SSO projects at this time.

We have carefully assembled the team shown in this proposal to balance the following factors:

- Need for a small, agile team that can focus on WVDPT needs
- Emphasis on quick response to incidents, meetings, and audit needs
- Need for a mix of personnel with a deep understanding of SMS, Part 674 and Part 659 requirements, and experience in setting up and operating an SSO program contract
- Ability to apply extensive transit industry experience while appreciating and understanding the unique needs of a system like WVU PRT

While we have identified a core group of consultants to concentrate on a possible WVDPT project, TRA has nearly two dozen additional personnel who can assist the team (and the State) as needed.

Whether the need is for additional audit or investigative staff, expertise in a specific regulation, or additional analytical capability, TRA will be happy to discuss possible additional personnel with WVDPT, on either a temporary or permanent basis. As expected, any such changes would be made using the appropriate contractual process.

Regardless of any formal personnel changes or additions, the TRA team for this project can draw on their own experience, and that of their coworkers, working for SSO agencies across the country. Because TRA actively staffs an abundance SSO projects, we have frequent and ongoing internal meetings and discussions about rail transit trends, FTA oversight direction, and other important topics. For example, TRA has an internal Moving Ahead for Progress in the 21st Century Act (MAP-21) working group to share information across projects and between personnel. Our staff also have ongoing informal discussions on technical issues, SSO program administration, and other key factors.

Staffing Plan

Any successful SSO program is predicated on the effective organization and staffing of the technical team so that it is able to meet all of the state's requirements and overall objectives. The technical team must have a detailed management and work plan in place for the ongoing SSO activities so that the technical team Project Manager can effectively communicate regularly with the SSO Program Manager on all aspects of project status. The technical team must also be able to anticipate potential issues that may arise at the rail transit agencies, either based on trend analysis performed within the state or based on industry events that may eventually garner the attention of the FTA. An effective project management plan and team organization are especially

Teamwork is Key

At TRA, we know working cooperatively and professionally with stakeholders makes SSO projects more effective. Each TRA team member will focus on achieving FTA compliance, while maintaining an excellent working relationship with WVDPT and WVU.



critical for WVDPT. TRA understands these complex needs and is experienced in creating project teams and organizational structures that take into account the uniqueness and scale of each SSO Program.

TRA is creating a Project Team that includes a Project Principal who is responsible for the performance of all key personnel, production staff, and support staff assigned to this agreement, as well as contractual matters. The Project Principal will be fully aware of all project activities and data, as well as public transportation industry actions, activities, and trends, especially in the safety fields.

TRA's Project Management team is already embedded in the rail SSO and broader transit community and fully understands the unique requirements of multimodal transit systems. TRA is also committed to ensuring that the WVDPT has a direct Project Manager, as well as supporting management personnel, who are engaged in the project and are able to interact intelligently and effectively with the TRA team on both a regular, scheduled basis, as well as at any time of day or night, depending on specific project or assignment needs.

Project Principal

Overseeing the entire project is the Project Principal whose primary responsibility is to ensure overall project quality and delivery in accordance with TRA's policies and the contractual requirements. The Project Principal is also responsible for direct day-to-day management of project activities, schedule, budget, delegation of work assignments, and reporting of work activities and delivery of reports and documentation to the WVDPT's Program Manager. The Project Principal will work closely with the TRA team to ensure the successful administration of the project and ongoing monitoring and modification of strategy to deliver the most effective results. The Project Principal will be aware of all project activities, and will be available on-call as necessary for meetings with WVDPT personnel, or others, if requested by the WVDPT as part of individual project requirements.

In addition, the Project Principal is a certified Project Management Professional (PMP) and fully capable of planning, executing, and monitoring all project activities for WVDPT.

Project Manager

The Project Manager will serve as the central point of contact for WVDPT and WVU safety department and contracts staff, as well as any other parties, as designated by the WVDPT. The Project Manager will be responsible for managing the project schedule and budget and delegating work per detailed work schedules to ensure timely delivery of services. The Project Manager will report on schedule, work activities, and deliverables through regularly scheduled meetings with WVDPT on each individual assignment or on multiple assignments, depending on the type of project(s) underway.

The Project Manager will coordinate with the TRA Project Management Team to determine which TRA team members are most appropriate for each assignment based on the assignment needs and team skills. The Project Manager will be responsible for overseeing the development of work plans in response to WVDPT requests and working with WVDPT personnel in the event that modifications are requested. The Project Manager will also coordinate with TRA's Contacts Administration team and will be responsible for overall contract compliance.



Subject Matter Experts

TRA is proposing a team of highly-qualified and experienced subject matter experts (SMEs) to support the WVDPT's upcoming assignments. TRA employees assigned to the project have worked on automated people movers, heavy rail, and light rail transit safety oversight and audit assignments, as well as needs assessments. They will play supporting roles to the lead technical personnel in cases where additional support is needed and where they possess the requisite experience and expertise. The core team has expertise in overseeing, auditing, and investigating the following areas:

- Railcars
- Traction Power
- Train Control & Signal Systems
- Track & Guideway
- Structures, Stations, & Vertical Transportation
- Communications
- Rail Operations
- System Safety
- Safety Certification, System Modification, and Configuration Management
- SSO Program Activities (data tracking, reports, etc.)

While the Project Principal and Project Manager will establish the overall project activities and monitor adherence to program requirements and timeline, they will work with each SME to develop specific work plans, as they pertain to actual project activities. For example, the lead SME, Project Principal, and Project Manager will work together to develop a plan for conducting a triennial audit, hazard analysis, or spot check, all in accordance with existing WVDPT's requirements and expectations.

It should be noted that TRA has successfully created teams of qualified individuals from its own staff in order to have the necessary resources available only when they are needed. The benefit of this approach is (particularly as it relates to SMEs) that WVDPT has access to a wide array of experts, but is not required to keep each person on a task for the entirety of the program. For example, should an FTA Safety Advisory be issued, TRA can ramp up its efforts with the right personnel, in order to complete the work efficiently. At other times, those same people may not be needed until an audit is scheduled or other work activities dictate there being assigned a specific action. When not working on assignments for the WVDPT, TRA's SMEs, as well as the majority of other TRA personnel, are working directly for other SSO Programs that are undergoing the same activities as WVDPT and which face similar challenges on a day-to-day basis in ensuring that comprehensive SSO is performed. With that, TRA has assigned key personnel for WVDPT; however, we also have other highly-qualified staff who can step in and support with technical questions that WVDPT may have.



Project Analysts

TRA's Project Analyst will play a critical role on this project and all TRA assignments. TRA Analysts possess subject matter knowledge in a broad range of areas and are actively engaged in SSO auditing, oversight, and even management activities nationwide. Analysts provide for a highly-knowledgeable role supporting the overall effort to develop all program documentation and reports associated with the ongoing SSO program administration (e.g. audit reports, periodic project updates, the annual report, etc.), as well as the activities associated with the SSO transition under MAP-21. TRA's Analysts are a cost-effective means of providing in-depth analysis and program support, while freeing up SMEs to support the more detailed audit, interview, and review activities. As with all other staff on the assignment, their workload will be assigned by the Project Principal, based on the schedule and the necessary work activities.

Emergency Situations

When unforeseen accidents or unacceptable hazardous conditions occur at the PRT, TRA can respond to WVDPT's needs quickly and efficiently. Our continuous work with the Pennsylvania Department of Transportation in Pittsburgh, PA allows us to be close to Morgantown, West Virginia. Additionally, TRA's Project Analyst, Michael Blauvelt, lives and works in Pittsburgh, and can be in Morgantown in less than two hours. Other TRA members based in Philadelphia, PA can arrive in 24 hours or less after receiving an alert. Depending on the time of request and other factors, TRA personnel may be able to arrive in Morgantown in as little as four to ten hours.

TRA has a history of responsiveness and attentiveness to client needs, including being on site for accident investigations quickly and for as long as needed. TRA staff have both responded to accident sites within hours (sometimes minutes) of occurrence, and, in some cases, have remained on site for as long as a week. TRA has responded within hours, from its Philadelphia headquarters, to incidents in Washington DC, Salt Lake City, Newark, New York City, Pittsburgh, and other locations. We are prepared to help WVDPT in this same way, and ensure the same high level of responsiveness.

Also, note that, for some of our SSO clients, much of our on-site response has been for hazards rather than defined accidents. These clients have recognized hazards as a precursor to potential accidents, and have tried to monitor these areas closely to prevent worse situations. TRA is prepared to bring this same level of responsiveness to serious PRT hazards that may arise, at WVDPT's direction. Likewise, as part of our work with WVDPT under ongoing program monitoring, TRA personnel will help WVDPT analyze incidents and hazards for potential investigation, and to be as proactive as possible in addressing them.

Section 4, Subsection 4.4.2

The Proposer should include information relating to its organization, personnel, and experience, including but not limited to references evidencing the Proposer's qualifications and capabilities, contact information for verification purposes.

In all of our consulting assignments, TRA prides itself on identifying and utilizing the most effective and efficient project team. We have nationally-recognized experts, experienced auditors, certified project managers, and dedicated analysts, with a specific rail public transportation experience. TRA is prepared to augment its staff with additional subject matter experts and/or analysts as needed to ensure the success of WVDPT's project and its SSO program overall.



Key Personnel

Daniel T. Hauber, PMP, Vice President (20 years of experience). Mr. Hauber, **Project Principal**, has been an integral part of its SSO technical and management teams for his entire career. He specializes in transportation projects related to safety, operations, and maintenance. Mr. Hauber has been a technical auditor for rail transit safety oversight in more than 12 states and jurisdictions, and has managed the teams for several of those projects. He provides states and oversight agencies assess their covered transit agencies, and to stay in compliance with FTA requirements and best practices. He has conducted audits in areas including system safety, security, operations, training, fixed facilities maintenance, vehicles maintenance, and safety and security certification. He has helped states with both triennial reviews and ongoing safety oversight programs.

William Matthews, Senior Consultant (34 years of experience). Mr. Matthews, **Lead Investigator/Safety SME**, is a transportation subject matter expert specializing in transit system operations and maintenance. Mr. Matthews partners with regional and metropolitan transportation systems and SSOAs to ensure system regulatory compliance and provide technical guidance. Mr. Matthews also delivers engineering and management solutions to transit agencies and transit system “new starts” regarding operations, system maintenance and safety certification processes. Mr. Matthews has over 30 years of experience in commuter railroad and intercity rail transit operations, system equipment maintenance, accident and industrial occupational health and safety. He also received the Transit Safety and Security Program (TSSP) certificate via the Transportation Safety Institute in October of 2015.

Joshu Shih, Project Manager (7 years of experience). Mr. Shih, **Project Manager**, is a transit operations expert who manages and participates in numerous TRA reviews of public transportation operations, maintenance, safety, and security across North America. During his original tenure at TRA from 2007 and 2010, and since his return to TRA in 2013, Mr. Shih has served in a variety of roles in TRA projects, from project management and analysis to subject matter expertise in transit operations and operations training. Currently, Mr. Shih runs TRA’s Washington DC office. Mr. Shih manages several SSO project teams, serving as the main TRA point of contact to SSO clients and coordinating TRA services provided to clients. Mr. Shih applies his overall expertise in transit, transit operations and operations training, delivering practical and useful work products to TRA’s clients throughout state departments of transportation and the North American public transportation industry. He also received the Transit Safety and Security Program (TSSP) certificate via the Transportation Safety Institute in December of 2016.

Michael Blauvelt, Project Analyst (2 years of experience). Mr. Blauvelt, **Project Analyst**, is the lead analyst for the Pennsylvania Rail Transit Safety Review Program, the SSO program of the Pennsylvania Department of Transportation (PennDOT), which includes ongoing review of routine operations and maintenance. He works closely with subject matter experts to assist in rail transit safety and security assessments and provides assistance to agency specific safety and security programs. Mr. Blauvelt’s initial assignment in TRA’s Philadelphia office was the Project Coordinator for PennDOT’s SSO program. Currently based in Pittsburgh, he continues to coordinate projects for PennDOT, but assesses and responds to issues, incidents, and accidents on the SSO program’s behalf in Pittsburgh and Johnstown. Additionally, he provides ongoing support to numerous SSO clients, including the Illinois and Florida Departments of Transportation, Minnesota Department of Public Safety, and Port Authority of New York and New Jersey. *(Full resumes with references of each key TRA team member can be found in Appendix A. Copies of TSSP certifications can be found in Appendix B.)*



TRA Team Structure

The TRA team retains extensive knowledge of SSO issues that impact the rail transit industry. Our thorough understanding of safety-critical incidents will benefit WVDPT. TRA’s approach to SSO incorporates careful attention to long-term concerns and regular monitoring of daily transit agency activities. The TRA team’s subject matter expertise and support team’s experience extends to monitoring internal safety and security audits, accident/incident investigations, hazard management, rules compliance, and the maintenance and inspection of systems, facilities, and equipment. Below is TRA’s proposed organizational structure for the WVDPT SSO program, including a description of each member’s project activities:

| TRA Team | Description of Professional SSO Services |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Daniel Hauber <i>Project Principal</i> | Manages and supports SSO projects ranging from the largest programs in the country to those that affect small trolley and inclined plane operations; lead safety auditor; proficient in MAP-21 compliance (including SMS and Hazard Management), completed SMS Principles and Rail Incident Investigation courses via TSI; working toward TSSP certification |
| Joshu Shih <i>Project Manager</i> | Manages and supports multiple SSO projects; proficient in MAP-21 compliance (including SMS and Hazard Management); TSSP-certified |
| William Matthews <i>Lead Investigator</i> <i>Safety SME</i> | Expert in accident/incident investigation and hazard management program implementation; TSSP-certified; Master’s in Public Safety Management |
| Michael Blauvelt <i>Project Analyst</i> | Supports SSO projects that involve SMS, hazard management, and rail investigations, completed Rail Incident investigations course via TSI, working toward TSSP certification |



Section 4, Subsection 4.4.3

The Proposer should provide qualified personnel that demonstrate a clear understanding of applicable federal and state laws, rules, and regulations, which must include 46 CFR Part 659, the MAP-21 Act under 49 USC 5329 State Safety Oversight Program, and other applicable FTA circulars

Understanding of MAP-21, 49 CFR Part 659, and 49 CFR Part 674

TRA is a pioneer in developing and implementing State Safety Oversight Programs (SSOP), beginning in the early 1990s with the Rail Transit Safety Review Program (RTSRP) for PennDOT, upon which other SSOPs have been based. The RTSRP was the first SSOP in the United States, pre-dating 49 CFR Part 659. Throughout most of TRA's history, it has supported public entities in navigating and complying with regulations under 49 CFR Part 659. Additionally, TRA personnel have become deeply familiar with the new regulatory requirements under MAP-21 and 49 USC 5329(e) as leading SSO consultants.

MAP-21 Compliance

- Industry leader in helping clients with the transition to MAP 21.
- Assists 13 SSO jurisdictions with MAP-21 support
- Has 2 legal experts on its staff, providing thorough knowledge of regulatory compliance

Since the initiation of MAP-21, TRA has been on the cutting edge of initiating enhanced programs and processes for both SSO clients and Regional Transit Authorities. TRA has been instrumental in guiding such entities in transitioning from 49 CFR Part 659 to 49 CFR Part 674. As a part of the transition under MAP-21, TRA has advised SSOAs in writing state-level regulations. TRA has also written and implemented Certification Work Plans (CWPs) for many SSOAs throughout the country.

In addition, TRA has personnel with deep knowledge in legal and regulatory requirements to provide expertise in the interpretation of new and imminent federal rules for the SSOP and the RTA systems. TRA also includes numerous professionals with years of experience working with government agencies and transit systems. TRA is currently offering technical assistance to several SSOAs in implementing MAP-21 requirements codified in 49 CFR Part 674, such as enacting SSOA enforcement authority, updated accident, incident, and hazard notification and investigation requirements, and updates to the corrective action plan (CAP) process. TRA is assisting several SSOAs in drafting enabling state legislation in order to update state-level regulations to comply with the requirements of 49 CFR Part 674. TRA has also assisted several SSOAs in developing Technical Training Plans (TTPs) to meet MAP-21 SSOA training requirements.

TRA has proven and extensive experience in guiding SSO clients in transitioning to new MAP-21 requirements through developing workshops and oversight processes. TRA's experience and knowledge of the transitioning process and regulations under 49 CFR Part 674 would be valuable to the WVDPT in ensuring that the SSOP would remain compliant as it transitions to meet the requirements under MAP-21. Through experience in developing and implementing CWPs for SSOAs, assisting in the drafting of enabling legislation, and writing TTPs for several SSOAs, TRA is uniquely-positioned to provide expertise in the implementation of MAP-21 requirements for the WVDPT.



TRA is currently assisting clients, such as the Illinois Department of Transportation (DOT), Utah DOT, Florida DOT, Michigan DOT, District of Columbia Department of Fire and Emergency Medical Services, and Pennsylvania DOT, in transitioning to MAP-21 compliant system safety program standards. This assistance has included:

- Drafting SSOA enabling legislation, and conducting legal and regulatory reviews;
- Developing MAP-21 compliant CWPs and TTPs;
- Writing enhanced SSO Program Standards and Procedures, including accident/incident investigation and CAP review and approval procedures;
- Conducting MAP-21 resource needs analyses for SSO clients; and
- Developing Conflicts of Interest policies and other program documents.

Section 4, Subsection 4.4.4

Proposer should provide a comprehensive listing of contracts of similar size and scope that it has successfully completed or is currently undertaking, as evidence of their personnel's abilities. A general description of a minimum of 3 contracts must be included and must show how such contracts support the Proposer's abilities in the rail state safety oversight. For each such contract, the Proposer must provide contact information for each reference organization, as well as contract beginning

TRA Experience: Rail Fixed Guideway Public Transit Systems

TRA has been in business since 1990, and during that time has had a particular concentration in work with rail fixed guideway public transit systems (RFGPTS), developing and administrating SSO programs throughout the United States. As the leading consultant to SSO agencies nationwide, TRA has been and continues to work with clients as the safety oversight function is evolving under new regulations and better understanding of various means of improving safety and security.

The following sections list six current SSO projects, including three that involve automated people mover systems similar to WVU's PRT. We have included each client's project manager name and contact information for. *We are also happy to provide contact information for any of the SSO projects and programs referenced in the comprehensive table at the beginning of our Attachment A response.*

Automated People Movers

TRA has the unique skills associated with APM oversight. Our APM projects include:

- AirTrain at JFK International Airport
- AirTrain at Newark International Airport
- APM at Orlando International Airport
- APMs at Miami International Airport
- Detroit People Mover
- Miami-Dade Metromover
- Jacksonville Skyway

Client: Port Authority of New York and New Jersey (PANYNJ)

Project: AirTrain Safety Oversight Board, Newark, NJ and New York, NY, 2004 – Current

In 2004, TRA worked as the lead consultant to PANYNJ and established the AirTrain Safety Oversight Board (ATSOB), an internal board charged with providing safety and security oversight of the AirTrain automated people mover systems (APM) at Newark Liberty (EWR) and John F. Kennedy International (JFK) Airports. The ATSOB is modeled on the federal rail transit state



safety and security oversight program under 49 CFR Part 659, even though the systems are not formally subject to the regulations. TRA works closely with Port Authority personnel, on both a program level and a day-to-day basis, to investigate accidents, review corrective action plan development and implementation, and conduct joint and independent audits with AirTrain personnel. Investigations of accidents and serious hazards has been a significant area of concentration for TRA and the ATSOB overall. TRA's team has included experts in system safety, security, operations, and all areas of maintenance.

Jim Keane, General Manager, Operations Safety
Port Authority of New York and New Jersey
241 Erie St; Suite 301; Jersey City NJ 07310-1397
Phone: 201-216-2821
jkeane@panynj.gov

Client: Michigan Department of Transportation (MDOT)

Project: State Safety and Security Oversight Program, Detroit, MI, 2010 – Current
TRA has helped MDOT complete the last two triennial safety and security reviews of the Detroit People Mover, a rail fixed guideway transit system. TRA prepared detailed reports with practical and tangible findings and recommendations to help improve the overall safety and security programs at the transit system. TRA is helping MDOT oversee the M-1 Streetcar project along Woodward Avenue in Detroit, including attending safety- and security-related project meetings, and the review of key project documents. TRA is also tasked to assist MDOT navigate through the new SSO requirements contained in MAP-21. TRA developed MDOT's FTA-approved Certification Work Plan, and is currently assisting MDOT in making needed program enhancements to achieve full compliance.

Daniel Harris, Manager, State Safety Oversight Program
Michigan Department of Transportation
425 W. Ottawa St, P.O. Box 30050, Lansing, MI 48909
Phone: 517-335-1005
harrisd16@michigan.gov

Client: Florida Department of Transportation (FDOT)

Project: RFGPTS Safety and Security Oversight Services, 2005 – Current

TRA has been the primary support consultant for much of the FDOT's SSO program since 2005. TRA personnel worked directly with FDOT's District 6 to perform Triennial Safety and Security Audits of the Miami-Dade Transit (MDT) Metrorail and Metromover systems in accordance with 14-55 F.A.C. (now 14-15.017) and 49 CFR Part 659. TRA performed Triennial Safety and Security reviews of these rail systems in 2005 and 2009. These reviews included in depth assessments of Metrorail and Metromover system safety, accident investigation, corrective action response, employee safety, configuration management, vehicle maintenance, infrastructure maintenance, employee training, operations management and supervisions, substance abuse testing and compliance, and all other areas covered under state and federal regulation. TRA auditors performed in-depth interviews and assessments on-site and provided MDT with detailed findings and recommendations. In addition, FDOT asked TRA to assist in assessing MDT's proposed corrective actions to safety and security issues. Under separate contracts to District 6, TRA also provided technical assistance on behalf of FDOT in response to a fatal incident involving MDT rail service and an employee safety concern.



Additionally, FDOT engaged TRA on two separate tasks related to the audit of the Miami-Dade Aviation Department (MDAD) Automated People Mover (APM) systems. Miami-Dade International operates two separate APM rail systems which transport passengers within an airport terminal and from the airport terminals to the remote Miami Intermodal Center transportation hub. The APM systems are driverless systems that operate on fully-separated fixed guideway systems and are controlled by an automatic train control system. FDOT requires that these airport APMs develop a compliant System Safety Program Plan (SSPP). In the first phase of work, TRA conducted a thorough review of the first SSPP that MDAD developed to cover both APM systems. TRA assessed the full document for compliance with FDOT requirements and provided FDOT and MDAD with detailed recommendations for incorporation of information to demonstrate procedural compliance with the regulatory requirements. In the latter task, TRA conducted a thorough on-site Triennial Audit of both APM systems, assessing system safety of the operation, maintenance, and management of the system. This Triennial Review was the first in-depth review of both systems. TRA developed a final report containing findings and recommendations in accordance with FDOT requirements.

Victor Wiley, CPM, Former Transit Safety Programs Manager
Florida Department of Transportation
Phone: 850-320-3728
wiley1536@aol.com

Client: Minnesota Department of Public Safety (DPS)
Project: Rail Safety Oversight Program, Minneapolis and St. Paul, MN, 2003 – Current

TRA has partnered with the Minnesota DPS since 2003, before light rail began revenue service in the Twin Cities. TRA helped establish the Minnesota Rail Safety Oversight Program (MnRSOP), which covers Metro Transit's light rail system in Minneapolis and St. Paul. In addition to helping create State Safety Oversight (SSO) policies and procedures, TRA worked with Minnesota DPS to conduct pre-revenue service safety and security assessments and safety certification as Metro Transit opened the Hiawatha (now Blue) Line in 2004, and the Green Line in 2014.

TRA leads the MnRSOP contractor team, and assists DPS in ongoing safety and security program oversight of Metro Transit. The MnRSOP conducts safety and security audits on a rolling basis across a three-year cycle. Audits entail extensive on-site work with Metro Transit to inspect conditions in the field, interview personnel, and review records. TRA also provides services to DPS to assist in tracking and approving Metro Transit accident and incident reports, as well as hazards and corrective action plans.

Timothy J. Rogotzke, Manager, Minnesota Rail Safety Oversight Program
Minnesota Department of Public Safety
540 Fairview Avenue North, Suite 100
Saint Paul, MN 55104
651-642-0661
tim.rogotzke@state.mn.us



Client: Missouri Department of Transportation (MoDOT)
Project: State Safety Oversight of Bi-State Development Agency Metrolink Light Rail, Delmar Loop Trolley Project, and Kansas City Streetcar Project

TRA provides technical, programmatic, and administrative support to MoDOT in its oversight of two streetcar projects, as well as the ongoing oversight of Metrolink. TRA assists MoDOT in attending important safety and security-related project meetings and reviewing key project documents for both streetcar projects. TRA helped guide MoDOT through a FTA Safety and Security Readiness Review of the Kansas City Streetcar. TRA is also scheduled to help MoDOT complete a Triennial Safety and Security Review of the Metrolink light rail. TRA has conducted such reviews for the Metrolink going back over a decade on behalf of MoDOT's SSO partner, the St. Clair County, Illinois Transit District.

TRA is also currently assisting MoDOT in the implementation of full compliance with the provisions of MAP-21, including helping monitor progress in implementing the state's Certification Work Plan, and making enhancements to the current SSO program.

Justin Sobeck, SSO Manager
Missouri Department of Transportation
105 West Capitol
Jefferson City, MO 65102
573-526-2169
justin.sobek@modot.mo.gov

Client: Utah Department of Transportation (UDOT)
Project: Utah Transit Authority (UTA), State Safety and Security Oversight Program, Salt Lake City, UT, 1998 – Current

TRA has provided ongoing safety and security oversight program support since the TRAX light rail system first opened for passenger service. Since that time, TRA has helped UDOT complete on-site safety and security reviews over the course of more than a decade of system expansions. TRA has performed several triennial safety and security reviews, as well as Pre-Revenue Service Reviews for every system expansion since opening, including Medical Center, Salt Lake Central, Mid-Jordan, West Valley, Draper, and the S-Line Streetcar. TRA findings and recommendations have helped UTA implement important changes to their safety and security programs, particularly in the management structure of the UTA organization.

In addition to on-site reviews, TRA provides UDOT with ongoing programmatic and administrative support, including the regular review and update of the UDOT Program Procedures and Standards, as well as the review of key UTA safety and security program documents. More recently, TRA has provided policy assistance to UDOT as the state takes steps to come into full compliance with the provisions of MAP-21, including the development of the FTA-approved Certification Work Plan.

Jim Golden, SSO Program Manager
Utah Department of Transportation
4501 South 2700 West, P.O. Box 141265
Salt Lake City, UT 84114
801-360-0052
jimgolden@utah.gov



Section 4, Subsection 4.4.5

Proposers should provide qualified personnel that understand the characteristics of the Safety Management System (SMS); Hazard Management practices and procedures; transit rail investigative practices and procedures, and the ability to plan, coordinate, and handle multiple tasks to meet short and long-term deadlines.

Safety Management Systems (SMS)

As part of this project, TRA offers four primary personnel (and the support of 23 additional staff) who understand and apply MAP-21 and Part 674 requirements. The proposed team has been actively engaged in interpreting and implementing MAP-21 requirements as part of SSO projects across the United States. Two TSSP-certified personnel are included on the team, and the other two are actively pursuing their TSSP certifications.

Congress passed MAP-21 in 2012 with a new framework for transit system safety, prompted in large part by a series of significant transit accidents. While high-profile rail accidents prompted the change, the FTA and other stakeholders had long been discussing greater state and oversight involvement in transit safety. A series of events across the industry prompted Congress to act, and in doing so, the FTA and SSOA were given new powers to mandate expanded safety efforts throughout transit agencies. While the adoption of all of the provisions of the SMS and SSO requirements are still ongoing, it is expected that they will continue to proceed and that transit will need to remain nimble to develop comprehensive SMS programs that deliver demonstrable results.

All of TRA's personnel in this proposal have hands-on, practical solid experience with SMS implementation and will assist WVDPT in developing its safety management approach to meet the changing Federal and State requirements. Assistance may come in the form of developing new plans, policies, and procedures; developing training programs for the WVU PRT staff; and/or conducting independent audits of the PRT's compliance with safety requirements in advance of SSO audits (or simply to gauge the state of the PRT).

In evaluating TRA's proposal, or that of any other proposer, WVDPT should note that the exact path forward for SMS is not entirely clear. The FTA has provided some information in Part 674, though some of the implementation guidelines and related information is preliminary or general. Further, Part 673, the Transit Agency Safety Plan rule, is on hold, and may or may not be issued soon. The implementation of SMS in areas such as aviation is different, and somewhat more mature, than what is found throughout the transit industry. TRA believes this is very important in shaping and implementing WVDPT's SSO program, as future SMS direction is not entirely known. As such, we believe that having a contractor like TRA, one that is working closely with several states in their MAP-21 implementation, would best serve the State of West Virginia in ensuring compliance.

Hazard Management Practices and Procedures

The proposed TRA personnel have extensive experience working with SSOAs to promulgate hazard management program requirements to covered transit agencies, and working directly with transit agencies to implement hazard management programs that meet SSO requirements. TRA also has extensive experience in the investigation of unacceptable hazardous conditions. In analyzing hazardous conditions, hazards are prioritized by determining the relative severity and probability of each hazard. Hazards that meet certain severity and probability thresholds may be deemed "unacceptable" and must be investigated and subsequently mitigated.



TRA will work closely with WVDPT to identify areas in which hazard classifications or reporting requirements can be strengthened, or where WVDPT may wish to take more of a hands-on role in the investigation or mitigation process. In addition, TRA personnel have consistently monitored FTA rulemakings and guidance pertaining to hazard management. In particular, FTA advocates industry-wide adoption of a SMS approach to hazard management. TRA will work with both WVDPT and WVU to implement this FTA approach, establishing a robust SMS framework.

Transit Rail Investigative Practices and Procedures

The proposed TRA team has extensive experience in transit accident investigations and investigative processes. Our team is very well-versed in both Part 659 and Part 674 FTA accident reporting and investigation requirements. TRA's personnel are very familiar not only in what accidents are reportable, but also in FTA's expectations for both SSO-led and transit agency-led investigations. The latter is particularly important in that, in most SSO programs, the transit agency takes a primary role in investigating many accidents and hazards.

Mr. Matthews had more than 10 years' experience as a System Safety Officer at the Southeastern Pennsylvania Transportation Authority (SEPTA), during which time accident investigation was a primary responsibility. In his prior SEPTA experience, he also had accident investigation responsibilities within maintenance and operations positions.

TRA staff on this project have considerable experience participating in National Transportation Safety Board accident investigations (*Mr. Hauber with several Washington Metro and SEPTA accidents, and Mr. Matthews with SEPTA accidents*). In addition, one of TRA's Vice Presidents, Christopher Wallgren, is listed as a primary author on the American Public Transportation Association's Standard for Rail Transit Accident/Incident Investigation, and TRA personnel use the standard regularly as part of SSO program development and implementation.

Planning, Coordinating, Handling Multiple Tasks

In many ways, the planning, coordinating, and handling of multiple tasks is one of the most important aspects of this project. This is the reason TRA has included Daniel Hauber, with his project management background and certification, as Project Principal. As demonstrated in his resume and other sections of this proposal, Mr. Hauber has over 20 years' experience in SSO programs. He also has a professional focus on project management and task organization, and will bring these two important perspectives to the WVDPT SSO project. TRA believes this is particularly important given the FTA's timeline for Part 674 and MAP-21 certification application, and the number and complexity of tasks that WVDPT needs to complete in a short time. We believe that, with appropriate coordination between people and stakeholders, and with rigorous task management, TRA can help WVDPT achieve its objectives.

Section 4, Subsection 4.4.6

Proposers should provide 1 lead investigator for all accident/incident and hazard investigations that is an experienced transit professional who has the expertise in accident investigations, developing and implementing safety recommendations, Safety Management Systems (SMS), data collection and analysis, and reporting drafting.

Mr. William Matthews will be the lead investigator for all accident/incident and hazard investigations for WVDPT. Mr. Matthews spent 10 years with SEPTA's System Safety Department overseeing bus and rail safety and hazard management, enforcing industry regulatory compliance, performing accident/incident investigations, and tracking occupational safety and health issues.



Mr. Matthews has a total of over 30 years of experience in commuter railroad and intercity rail transit operations, system equipment maintenance, accident and industrial occupational health and safety. He previously served in fleet maintenance and system safety roles at SEPTA. Mr. Matthews held various technical maintenance positions, advanced into senior level management and managed various SEPTA maintenance shop and heavy repair facilities in the commuter rail and subway light rail divisions.

Section 4, Subsection 4.4.7

Proposers should ensure that those who are responsible to assist with providing oversight through this contract are qualified to perform such functions through appropriate training, included successful completion of the public transportation safety certification training program established by 49 USC 5329(c).

Because of the considerable amount of SSO work that TRA performs, TRA has a comprehensive technical training plan (TTP) for its entire consulting staff. This includes a schedule for key personnel, as defined by FTA regulation, to complete FTA-required, MAP-21-related training. As shown in this proposal and in the attached resumes in Appendix A, our team includes personnel who have received the Transit Safety and Security Program (TSSP) in the Transit Rail Program. Mr. William Matthews received his TSSP in December of 2015; Mr. Joshu Shih received his TSSP in December of 2016. In addition, Mr. Michael Blauvelt has completed the Rail Accident/Incident Investigation and Transit System Security courses via the Transportation Safety Institute, and is working toward his TSSP. Mr. Hauber is also working toward his TSSP, and has completed Rail Accident/Incident and SMS Principles courses. TRA has one additional TSSP-qualified employee who can be recruited for specific WVDPT tasks as needed.

Section 4, Subsection 4.4.8

Proposers should provide an appropriate number of qualified personnel to provide technical assistance for all onsite compliance audits, reviews, accident and hazard investigations, and other oversight assistance requirements.

TRA has carefully considered its staffing for this project, and arrived at a core team of four personnel. We believe this number is appropriate for several reasons:

- The group comprises all necessary qualifications, expertise, experience, and proximity to West Virginia sites to ensure we meet the State's goals and objectives.
- The focused number of personnel ensures enough coverage and redundancy within the team should conflicts or emergencies arise, but the number is small enough to ensure core personnel remain very familiar with the project and its stakeholders.
- The project team has sufficient flexibility in its other assignments to ensure that WVDPT's important goals and deadlines are met.
- This core team will be well-supported by TRA's additional 23 consultants, as needed, for any unforeseen changes or scope modifications.



Section 4, Subsection 4.4.9

Proposers should also provide:

- 4.4.9.1: Safety and Security training credentials, qualifications, and certifications*
- 4.4.9.2: Documentation of current membership in industry organization*
- 4.4.9.3: Name, Location, telephone number, fax, cell, email of primary contact for Proposer*
- 4.4.9.4: Same contact information for all individuals that will respond to all calls during regular, weekend, after hour calls within 30 minutes*
- 4.4.9.5: Proposers website address*

The following table lists our team member's 24/7 contact information, company's website address, and a list of certifications and current memberships (copies of documents can be found in Appendix B).

| TRA Contact Information | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------|---------------|--------------------|
| | Location | Email | Office Number | Mobile (All Hours) |
| Daniel Hauber | Philadelphia | daniel.hauber@traonline.com | 267-908-8110 | 609-320-8111 |
| William Matthews | Philadelphia | william.matthews@traonline.com | 267-908-8113 | 610-675-8882 |
| Joshu Shih | Washington DC | joshu.shih@traonline.com | 202-656-9032 | 919-883-4767 |
| Michael Blauvelt | Pittsburgh | michael.blauvelt@traonline.com | 412-586-4267 | 630-334-3830 |
| Website: www.traonline.com | | | | |
| <p><i>Safety and Security training credentials, qualifications, and certifications, and membership documents are located in Appendix B:</i></p> <ul style="list-style-type: none"> • <i>American Public Transportation Association: TRA Membership</i> <ul style="list-style-type: none"> • <i>Transportation Safety Institute: TSSP Certifications</i> • <i>World Safety Organization: Affiliate Member, Certified Safety and Security Director</i> • <i>Project Management Institute: Project Management Professional Certification</i> | | | | |



Technical Approach and Methodology

In accordance with *Section 4, Project and Goals*, in the RFP, the methodology for implementing and maintaining a rail safety oversight program is critical to the success of WVDPT’s SSOP. Our approach will develop an environment of cooperative and respectful working relationships with WVDPT, resulting in the desired effect of improving safety. This approach also includes the use of highly-qualified subject matter experts and project analysts who understand the unique nature of rail transit and the specific components that make up a complete transit system. The following sections show how TRA will meet WDPVT’s goals and objectives.

4.1 Development of a System Safety Program Standard, System Safety Program Plan, and Security & Emergency Preparedness Plan for WVU PRT

System Safety Program Standard

As WVDPT correctly notes, the System Safety Program Standard (SSPS) dictates nearly all of the SSO programs operations, procedures, and expectations. At the same time, the FTA’s expectations are currently in flux. As such, executing an FTA-compliant SSPS that also fits WVDPT’s unique needs is an important and challenging task.

In formulating WVDPT’s SSPS, and throughout the rest of our work for the State, TRA will be very careful to balance FTA and statutory requirements with the unique, system and location-specific needs of West Virginia. With regard to the SSPS, TRA will develop a comprehensive document that ensures:

- Compliance with 49 CFR §674 requirements, and preparedness for potential §673 requirements
- Incorporation of TRA’s national experience and transit industry trends
- Compatibility with a small, non-traditional transit agency stakeholder
- Flexibility for unforeseen developments and program growth

The foundational information in 49 CFR Part 659 is still very relevant to WVDPT, and for SSPS

CWP Process and Schedule

WVDPT’s CWP tasks and schedule are critically important — TRA will work hard to help the State ensure timely tracking and completion of necessary tasks, and a timely certification application to FTA.

development in particular. In drafting WVDPT’s SSPS, TRA will ensure that current FTA requirements are incorporated where appropriate. For example, the timeline for the Transit Agency Safety Plan standard (draft Part 673) is not clear, and as such, the System Safety Program Plan (SSPP) related requirements of Part 659 must continue to be used. We will also review, and incorporate as appropriate, FTA’s guidance material from the current and past SSO final rules. Many of these guidance elements have become accepted (and expected) practice throughout the

SSO community, and will almost surely be part of future FTA expectations when the agency audits states such as West Virginia.

Specific work steps for SSPS development:

- As part of the general project startup tasks mentioned above, TRA will identify items in WVDPT’s current CWP, in FTA correspondence, and from WVDPT’s task direction, that must be incorporated into the SSPS. Such items may include specific language the FTA



seeks regarding WVDPT operations, WVDPT’s desired interaction with WVU, and any key details about WVDPT SSO staffing that may affect procedures such as accident investigation.

- TRA will draft an SSPS, incorporating the information outlined above, as well as our national SSO experience. We will work hard to ensure the substance and language of that draft incorporates FTA requirements, and also accommodates the scale and maturity of both WVDPT and WVU transit operations. TRA will present that draft to WVDPT for review and comment. We will highlight any areas that we believe deserve special review from WVDPT, including those areas that may require a significant shift in operations by WVDPT or WVU.
- Based on WVDPT review and input, TRA will revise the SSPS and prepare it for transmittal to WVU. This step is not technically required by the FTA, but we believe that it will be helpful to all parties, and goes to the relationship-focused process that WVDPT requires. TRA will work with WVDPT to receive, review, and incorporate as appropriate (at WVDPT’s direction) any comments that WVU may have.
- TRA will submit a final draft SSPS to WVDPT for incorporation into the CWP process. Moving forward, and as part of other work tasks, TRA will work with WVDPT to facilitate FTA’s review of the SSPS, and to incorporate and execute any comments FTA may have.

We have developed CWP and Part 674-focused SSPS for 14 SSO agencies, and this work experience will form the foundation for TRA’s development of WVDPT’s own SSPS. As part of TRA’s support team, we have Part 674 experts as well as personnel with law degrees. This combination of experience will help us ensure that WVDPT’s CWP and its SSPS meet FTA legal and operational requirements.

TRA will develop the WVDPT SSPS such that it meets the *specific needs of West Virginia* and the WVU PRT. This includes developing appropriate parameters for document submissions, meetings, stakeholder interaction, accident thresholds, investigation procedures, corrective action plans, and safety and security plan content. As a general illustration, we offer the following example of a Part 674-focused SSPS that TRA has authored for another SSO program:

| Table of Contents for a Part 674-Compliant SSPS Authored by TRA (Not West Virginia-specific, for illustration only) | |
|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|
| Endorsement | |
| State Safety Oversight System Safety Program Standard and Procedures Revision Log | |
| 1. Introduction and Overview | |
| A. | Program Participants and Roles |
| B. | Definitions |
| C. | Point-of-Contact Information |
| 2. System Safety Program Standard and Procedures | |
| A. | Objective |
| B. | System Safety Program Standard and Procedures |
| C. | Procedures to Update System Safety Program Standard and Procedures |
| D. | SSOA Standard Operating Procedures |
| E. | Public Transportation Safety Certification Training Program |
| F. | State Safety Oversight Program Coordination |
| G. | SSOA Enforcement Authorities |
| H. | Confidentiality of Investigation Reports and Security Documents |
| I. | Conflicts of Interest |
| J. | Dispute Resolution |
| 3. Public Transportation Agency Safety Plan and System Safety Program Plan General Requirements | |
| A. | Objective |



Table of Contents for a Part 674-Compliant SSPS Authored by TRA
(Not West Virginia-specific, for illustration only)

- B. Public Transportation Agency Safety Plan Content Requirements
- C. Initial PTASP Review Process
- D. SSPP Content Requirements
- E. Procedures to Modify the SSPP
- Figure 1. Safety and Security Plan Review and Approval Process
- 4. Security & Emergency Preparedness Plan General Requirements
 - A. Objective
 - B. SEPP Content Requirements
 - C. Procedures to Modify the Security & Emergency Preparedness Plan (SEPP)
- 5. Hazard Management Process
 - A. Objective
 - B. Minimum Requirements
 - C. Procedures
 - D. Definition and Categorization of Hazardous Conditions
 - E. Notification of Unacceptable Hazards
 - F. Analysis of Unacceptable Hazards
 - G. Unacceptable Hazardous Condition CAPs
 - H. MAP-21 and Hazard Management
- 6. SSO Program Safety and Security Audits
 - A. Objective
 - B. On-Site Audit Procedures
 - C. Other Safety and Security Audits
 - D. Ongoing Inspections and Observations

Figure 2. On-Site Safety and Security Audit Process
- 7. Safety and Security Certification Related Reviews
 - A. Reviews of Safety and Security Certification Program
 - B. Reviews of System Expansions and System Modifications
 - C. Pre-Revenue Service Reviews
 - D. Reviews of Threat and Vulnerability Assessments and Preliminary Hazard Analyses
- 8. Accident, Incident, and Hazardous Condition Notification
 - A. Objective
 - B. Accident and Incident Notification Requirements
 - C. Hazard Notification Requirements
- 9. Accident, Incident, and Hazardous Condition Investigation and Reporting
 - A. Objective
 - B. SSO Program Investigation Process
 - C. Unacceptable Hazardous Condition Investigation Procedures
 - D. Final Investigation Report Contents
 - E. Investigation Report Review, Adoption, and Dispute Resolution

Figure 3. Investigation Process
- 10. RTA Internal Safety and Security Audits
 - A. Objective
 - B. Minimum Requirements
 - C. Annual Report Contents
 - D. Threat and Vulnerability Assessment
- 11. Corrective Action Plans
 - A. Objective
 - B. Minimum Requirements
 - C. Notification
 - D. Corrective Action Plan Approval



| Table of Contents for a Part 674-Compliant SSPS Authored by TRA (Not West Virginia-specific, for illustration only) | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| E. | Monitoring and Tracking |
| F. | Corrective Action Plan Dispute Resolution |
| G. | Verification and Closure of Corrective Action Plans |
| 12. | RTA Reporting to SSO |
| 13. | SSO Reporting to FTA |
| A. | New Start Initial Submittal and Initial 674 Certification |
| B. | Annual Submittal |
| C. | Annual Certification |
| D. | Periodic Submissions |
| 14. | Other SSO Reporting and Communications |
| A. | Annual Safety Status Report |
| B. | SSOA Communications with the Public |
| Appendix A: 49 Code of Federal Regulations Part 659 – Rail Fixed Guideway Systems; State Safety Oversight | |
| Appendix B: 49 U.S. Code 5329(e) – Public Transportation Safety Program | |
| Appendix C: 49 Code of Federal Regulations Part 674 – State Safety Oversight | |
| Appendix D: Initial Accident/Incident and Hazard Notification Forms | |
| Appendix E: SSO Checklists for SSPP and SEPP Review | |

As part of the SSPS development and drafting, TRA will formulate appropriate checklists and guides to support auditing, SSPP/Security & Emergency Preparedness Plan (SEPP) review and approval, and other key WVDPT activities. Since the earliest Pennsylvania *Program Procedures* document, TRA has sought to incorporate checklists, guides, flowcharts, and visual aids where they are helpful and practical. Anything that can be done to facilitate better communication between the state and its covered transit agencies is a priority for TRA’s work deliverables. Checklists are particularly important not only because they are required by FTA, but because they demonstrate the state’s intended application of the SSPS, and hopefully clarify the intended direction for the rail transit agency.

TRA notes, based on RFP Attachment D, WVDPT’s CWP matrix, that accident investigation, hazard management, and similar programs must be developed and finalized. We also note that some outstanding items related to contractor activities, internal and external training, and staffing details must be formalized. TRA is will develop appropriate procedures for all necessary WVDPT SSO activities, and will ensure that this work is closely integrated with SSPS development, and focused on CWP fulfillment.

System Safety Program Plan and Security & Emergency Preparedness Plan

TRA has conducted SSPP and SEPP reviews on nearly all of our SSO projects. In cases like Pennsylvania, Washington DC, Maryland, Florida, Utah, and Virginia, we have conducted these reviews as part of annual SSPP and SEPP updates, and for multiple transit agencies within some states. As such we have conducted SSPP and SEPP reviews for dozens of such plans. Our experience includes formulating and executing appropriate checklists and supporting materials, and recommending approval or modification of transit agency plans.

Perhaps most importantly as regards WVDPT’s program, we have also worked cooperatively and closely with transit agencies to both understand their plan drafts, and to ensure that their plans meet FTA and SSO requirements. In many cases, this leads to constructive in-person or teleconference discussions with the transit agency, to discuss the state’s (and TRA’s) comments on the SSPP or SEPP draft.



The specific steps of the SSPP and SEPP review will be laid out in the SSPS, and typically include:

- Fixed timeframes for plan submission
- Limited time for the State to review and comment on the plan, and to complete associated checklists
- A process for either approving the plan, or requesting revisions from the transit agency

In our extensive SSPP and SEPP review experience, it has been very rare that TRA has recommended that a state outright reject a plan draft. Typically, a more constructive and professional conversation is much more helpful than a stern letter. Unless there is reason to do otherwise, TRA will advocate this same approach within West Virginia. TRA representatives also anticipate providing a certain amount of technical assistance and partnering with WVU and PRT representatives. [Sometimes this assistance also extends to other plan stakeholders, such as local first responders.] We respect and will implement WVDPT's intention to partner with WVU. At the same time, we will seek to ensure that WVU is engaged through every step of the process, so that the final plans are very much their own, and that the PRT can work within them without major issues.

TRA has estimated the SSPP and SEPP effort to include both senior personnel, with extensive experience in such plans, and junior personnel who can help complete preliminary checklist drafts and conduct data/information verification throughout the process. These personnel will work closely together, and with WVU, to ensure the best and most effective outcome for the SSPP and SEPP, and for SSO program compliance overall.

When working with smaller agencies, and with transit agencies that are new to the SSPP or SEPP process, we have found that partnering closely and utilizing a consistent TRA team both help facilitate the process. This helps ensure that all stakeholders understand everyone else's positions, and that everyone works to a common goal. Having a high level of technical expertise on the team, and consistently available to the transit agency, also helps ensure that somewhat technical or hard-to-scale FTA requirements are understood and implemented properly.

4.2 Update of the System Safety Program Standard, PRT System Safety Program Plan, and Security and Emergency Preparedness Plan

TRA will fulfill WVDPT's task requirements for annual SSPS review and update, and to help ensure the timely update of WVU's SSPP and SEPP. Our experience with other states indicates that annual updates (whether minor or large) are almost always necessary for all of these plans, and we enter this task assuming this will be the case for West Virginia as well. The following are some specific steps that TRA believes will be helpful in fulfilling West Virginia's goals and objectives:

- Work closely with WVDPT, WVU, and FTA throughout the year to identify potential updates, SSO program changes, and other issues that may impact the SSPS
- Utilize TRA's national SSO experience and exposure to both SSOAs and RTAs nationally to identify issues that might also affect West Virginia
- Schedule regular and predictable SSPS updates so WVU representatives know when to schedule their SSPP/SEPP updates
- Return regularly to the topic of SSPS, SSPP, and SEPP updates when conducting meetings, audits, and other interactions with WVU, to ensure that such updates are expected and scheduled



- Maintain a comprehensive list of possible updates, maintained by a single person at TRA, including everything from minor edits to major State or FTA changes
- Incorporate WVU, and as needed the FTA, into SSPS update drafts to ensure complete understanding and commitment

The annual revision process will closely mirror the process described under the initial SSPS development, described above. As needed, TRA will incorporate additional editing and review time, e.g., if there is an open FTA audit finding that might require an update to the SSPS.

As indicated above, we believe that the SSPS, SSPP, and SEPP are living documents. Interim updates to any of these documents may also be necessary. TRA will help WVDPT ensure ongoing awareness of these documents and their underlying processes, and help ensure there is ongoing focus on their currency and on minimum annual updates.

4.3 Investigation of Accidents and Unacceptable Hazardous Conditions

TRA appreciates the importance that both WVDPT and the FTA place on the accident and hazard investigation process. We agree that this process is critical to SSO program function. For WVDPT, that importance stems from several factors:

- WVDPT must continue to build on its staff training and expertise
- WVDPT's SSO personnel must be able to mobilize and respond to incidents quickly
- The State's contractor also must be able respond to incidents quickly and efficiently

It is important to note that for investigation purposes, members of the TRA team can be on site in Morgantown, West Virginia in less than 24 hours. The TRA main office is located in Philadelphia, and it is approximately a 5-hour drive to Morgantown. One of our project analysts is based in Pittsburgh and can arrive in Morgantown in less than 2 hours. Additionally, TRA team members are reachable via mobile phone at any time to respond to accidents and incidents. TRA has demonstrated its high value to other SSO clients by providing expert project team members to assist in major accident and incident investigations.

Determining What to Investigate

One of the FTA's stated goals in the transition from Part 659 to Part 674 has been to increase states' involvement in accident and hazard investigations. Under Part 674, as in Part 659, there remains an option for the SSO agency to "require an investigation" by the rail transit agency. In other words, the SSOA may review and adopt the transit agency's investigation, rather than conducting an independent investigation. Based on our experience with other states, we believe this will be the preferred method of investigation for many incidents and hazards, partly due to WVDPT resources, but also because having the transit agency directly responsible for the investigation ensures its engagement and ownership of the process. As such, WVDPT's investigation standards impact not only State activities, but also the operations of WVU. With all of that as background, there will still be a significant need for independent, State-led accident and hazard investigations. Part of the challenge is determining exactly what types of incidents need to be investigated.

As noted in above, the SSPS will have West Virginia-specific accident thresholds, hazard definitions, and investigation procedures. The SSPS will, most likely, also include some flexibility in what the State can or will investigate. As part of the ongoing accident and hazard reporting process, TRA will work closely with WVDPT to analyze incidents, to determine if an investigation is necessary, and to determine whether that investigation should be by the State, the PRT, or both.



At a minimum, all defined, reportable accidents, and hazards as dictated by the SSPS, should be investigated by the State. TRA will take a primary role in this work, and work cooperatively with WVDPT and WVU. Many State investigations involve detailed review of WVU's own investigation. In many cases, there will be detailed discussions about the investigative process, findings, and corrective action plans. Where needed, TRA will also recommend to WVDPT that the State, with TRA's help if appropriate, conduct on-site investigations or follow-ups. This general methodology is applicable to both accidents and hazards as described below.

Accidents

TRA has extensive experience working with SSO agencies nationwide, as well as outside agencies like the NTSB, as needed, in the investigation of accidents and incidents. TRA has also assisted SSO clients in the development, review, and revision of accident investigation procedures. As the overseen transit agency typically conducts most accident investigations, the SSO agency must formally approve the transit agency's investigation procedures and ensure that they meet the requirements set forth in the Program Standard.

TRA will investigate defined accidents, as well as any additional incidents as directed by WVDPT. Though every accident is different, typically TRA will:

- Gather data and information, receive and review reports related to the accident, and provide an initial briefing to WVDPT in accordance with the accident notification and investigation requirements set forth in the System Safety and Security Program Standard.
- Monitor and review accident investigation activities conducted by other parties.
- As directed by WVDPT, conduct on-site accident investigation activities, including, but not limited to:
 - Performing physical inspections
 - Reviewing relevant data and records
 - Interviewing individuals involved in the accident
- Prepare both interim and final accident investigation reports.
- In the event of an accident investigated by the NTSB, interface directly with NTSB on behalf of the WVDPT, including attending meetings, being interviewed, responding to requests for data, etc.
- Provide additional assistance, as directed by the WVDPT, to fulfill the accident investigation requirements outlined in the System Safety and Security Program Standard.

Unacceptable Hazardous Conditions

The SSO agency must require that the transit agency establish an effective Hazard Management program to identify, investigate, analyze, and mitigate hazardous conditions. Certain hazardous conditions deemed "unacceptable" must be investigated in accordance with requirements set forth in the West Virginia Program Standard. The SSO agency must require the transit agency to have a process in place to minimize, control, correct, or eliminate any investigated hazardous condition requiring corrective action. TRA has extensive experience working with SSO agencies nationwide as they promulgate hazard management program requirements to covered transit agencies, and working directly with transit agencies to implement hazard management programs that meet SSO requirements.

TRA also has extensive experience in the investigation of unacceptable hazardous conditions. In analyzing hazardous conditions, hazards are prioritized by determining the relative severity and



probability of each hazard. Hazards that meet certain severity and probability thresholds may be deemed “unacceptable” and must be investigated and subsequently mitigated.

TRA will investigate any unacceptable hazardous condition as directed by WVDPT. Additionally, TRA will:

- Assist with receiving and reviewing reports of unacceptable hazardous conditions, gather data and information necessary to characterize any reported hazardous condition, and provide a briefing to WVDPT according to the procedures established in the System Safety and Security Program Standard.
- Monitor and review unacceptable hazardous condition investigative activities conducted by other parties
- When directed by the State, conduct on-site unacceptable hazardous condition investigation activities, including, but not limited to:
 - Performing physical inspections
 - Reviewing relevant data and records
 - Interviewing individual(s) who reported the unacceptable hazardous condition
- Prepare interim and final investigation reports.
- Provide additional assistance, as directed by WVDPT, to fulfill the investigation requirements for unacceptable hazardous conditions, as outlined in the West Virginia Program Standard.

With regard to hazards, it is very likely that WVDPT’s SSPS will define certain patterns or trends in hazards that merit investigation, even if they are not deemed “unacceptable.” TRA will work cooperatively with WVDPT to monitor hazards that may warrant investigation simply because of their frequency or severity, or which may have a significant impact on future potential accidents.

TRA has assisted numerous SSO clients in the investigation of accidents, incidents, and hazards including, but not limited to, Pennsylvania, Maryland, the Tri-State Oversight Committee, Virginia, Florida, Illinois, Minnesota, and Utah. These investigations have included minor incidents, major investigations, NTSB investigations, and detailed, technical hazard investigations.

4.4 Oversight Activities

TRA is uniquely positioned to meet the wide range of consultant support services required by WVDPT to support its expanding SSO program. As the national leader in providing SSO consulting services, TRA has hired staff members who possess the necessary qualifications to meet the various areas of rail transit operations safety and security. TRA has established internal training and familiarization processes to ensure that all employees understand the fundamental operating protocols of rail transit systems of all modes, and TRA works to produce individuals who then specialize in certain areas so that they can best serve client needs.

TRA personnel have worked closely with other SSOAs to enact national models for SSO involvement and engagement with the rail transit systems it oversees. TRA’s goal has always been to continuously improve its ongoing oversight support services, and if selected to continue its work for WVDPT, TRA is committed to coordinating with FDOT in further program advancement.

The following sections, as referred RFP under *Oversight Activities*, are brief summaries of how TRA will deliver these oversight support services.



4.4.1 Responding to inquiries referred by WVDPT about the program.

TRA will work with WVDPT to develop a standard approach to external inquiries. Such inquiries often relate to general program information, transit safety, and similar topics. There is also a possibility of more focused inquiries, perhaps relating to a specific accident or a perceived issue at the PRT. When specific inquiries come up, TRA's Principal in Charge or its Project Manager will be available to discuss and review with WVDPT management immediately, and to help formulate an appropriate response.

The form of the inquiry response likewise will vary, and may include interviews, emails, letters, or in some cases, no response at all. TRA will work with the State to determine the best course of action for the SSO program overall, and to help ensure that safety, security, and the State's interests are preserved. As needed, TRA can also bring in its SSO and transit safety legal expertise, which includes two lawyers on our consulting staff.

4.4.2 Evaluating, reviewing, and commenting technical documents from WVU, as well as other external agencies.

All TRA personnel are deeply familiar with the various RFGPTS technical documents that govern the operational safety and security of fixed guideway systems of all modes. TRA personnel have reviewed the equivalent plans for heavy and light rail systems (including historic and modern streetcar systems), and APM systems as part of SSO assignments in other jurisdictions throughout the United States. TRA has also conducted operations, maintenance, safety, and security needs assessments and developed operating rules and procedures for agencies throughout North America.

TRA will work with WVDPT to determine who the best personnel from TRA are to assist in any document reviews of rail transit agency documents or any reviews and updates of WVU guiding documentation.

4.4.3 Meeting with WVDPT and WVU on an established on-site meeting schedule, as directed by the WVDPT and FTA. Vendor shall be available for conference calls in lieu of on-site meetings or to address other matters

TRA will provide all the necessary, qualified personnel to WVDPT to respond to requests for information or to participate in on-site meetings as needed. TRA has developed a number of practices, including the use of on-call personnel and SMEs to accommodate the needs of its clients who work with consultants who balance multiple projects, and TRA would work with WVDPT to establish these protocols so that WVDPT can be assured it will always have access to its team of expert TRA advisors. While any one individual may not always be available 24/7, TRA will establish proven protocols to assure availability of knowledgeable personnel at all times.

4.4.4 Preparing of briefing materials

TRA will work with WVDPT to determine which briefing materials can or should be standardized and which will need to be developed on an as-needed basis. TRA will work with WVDPT to develop briefing materials that are customized to the appropriate audience and relate the relevant information that results in ongoing safety and security improvement throughout the state.



4.4.5 Assist the WVDPT in conducting announced/unannounced safety inspections of the PRT each year

TRA has established successful protocols for announced and unannounced on-site review activities as parts of other SSO assignments, and these could be developed for WVDPT, addressing specific needs.

What TRA has found with announced site visits is that the SSO can establish a detailed agenda for which the transit agency can prepare materials and be prepared to show how work activities take place, to show the overall condition of facilities and assets, and to demonstrate its safety plan in action.

With an unannounced visit, the SSO is able to determine if the safety program is being enacted when the agency is not expected to be viewed in a formal audit setting. Furthermore, the agenda can be made more flexible so that regular work activities that may have been pre-empted for the scheduled site visit can actually be viewed by the subject matter experts.

For on-site inspections, TRA proposes to:

- Work with WVDPT to determine effective agendas for both types of site visits,
 - With meetings and observations scheduled for the announced visit, or
 - With a detailed summary of observations and audits to be conducted as part of the unannounced visit.

Both agendas will be based on industry activities, such as feedback from the FTA or incidents that have relevance to the PRT; on SSPS audit requirements; on previous findings and CAPs from triennial audits/reviews or incident investigations; on hazards from the hazard logs; or simply from WVDPT's knowledge of ongoing activities based on its ongoing contact with PRT personnel.

While PRT staff will obviously not be notified of unannounced visits, TRA expects that WVDPT will communicate the times of any announced visits to ensure that appropriate PRT personnel are present and able to support the review. Prior to both types of inspections, TRA will work with WVDPT to develop the agenda and objectives, as noted above. TRA will provide WVDPT with daily updates while on-site, particularly if any major issues arise. TRA will also provide WVDPT with detailed site visit summary reports based on the reviews.

4.4.6 Analyzing accident and incident data, assessing hazards and conducting trend analysis

While prevention, safety, and security are the most important aspects of an SSO program, accidents and hazards do arise. Analysis of such trends is critical to ensuring that both the State and the PRT both understand and appreciate both the incidents themselves, and their overall impact on the safety management process. TRA's project Principal will have oversight of incident assessments and trend analysis, and will ensure that all project staff actively review accidents and hazards at the following levels:

- Immediate assessment, as described above, to determine what response is appropriate (reporting, on-site investigation, PRT and/or State investigation, etc.)
- Weekly and annual review of open accidents and hazards, as well as recently completed investigations, for SSO program and PRT trends



- Ongoing and annual review of program-level issues, as compared to triennial audit areas, SSPP and SEPP content, and transit industry trends (including APMs)

Depending on the number and severity of incidents, TRA may recommend to WVDPT that it (with TRA) conduct regular meetings and reviews of hazards and accidents with PRT. This may involve a weekly or monthly meeting, a conference call, or other similar means, depending on the quantity and type of incidents PRT typically experiences.

In addition to looking at hazard trends, TRA will use the SMS model to look for leading safety and security indicators. These might include information from unannounced visits, riding the PRT, watching surveillance video, or reviewing customer service and WVU logs. There are many potential types of leading indicators, both positive and negative, that could be precursors to incidents. Monitoring and analyzing trends in these areas will help WVU and WVDPT reduce actual accidents.

4.4.7 Providing technical expertise and programmatic support to significant WVDPT accident/incident investigations, on an on-call basis

As noted on sections 4.3 and 4.4.5 of this proposal, TRA is fully prepared and technically qualified to assist in the investigation of major accidents and incidents. As noted above, we are prepared to work with WVDPT to analyze all incoming accident and incident reports, and to respond quickly as dictated by the apparent magnitude of the incident. We conduct similar services for several other SSO agencies, and have had a successful history of working with these states to build and maintain rigorous accident and incident programs.

The Project Analyst and Project Manager in particular will be in charge of receiving and analyzing accident and hazard reports. The Project Principal and Safety SME will help review accidents as they come in, and help determine what kind of State response is necessary (see additional details above).

4.4.8 Administrative support

TRA is experienced in providing a range of administrative support for its SSO clients. Administrative tasks include, but not limited to, preparing of communications materials, such as letters and memos to the FTA, as well as meeting minutes, meeting agendas, and other necessary documentation that is required for managing an effective SSO program. TRA would work with WVDPT to formalize administrative practices and introduce any new ones that would further enhance the program. As we do in all of our SSO projects, TRA will ensure that any administrative work it performs for WVDPT will be closely tied with program procedures, internal project management processes, and FTA requirements.

4.4.9 Assist the WVDPT with development and maintenance of an annual calendar of upcoming events listing critical data for report preparation, reporting and due dates, scheduled on-site reviews, meetings, trainings, and other items with a set due date

TRA has worked with other SSOAs to maintain project schedules and calendars during its past work activities. TRA will work with WVDPT to develop an in-depth calendar that includes regular prediction, tracking, and reporting of all WVDPT and PRT required activities. As the WVDPT program grows, so will the need for a detailed calendar so that requested items and information are not forgotten and expanded audit and oversight activities are appropriately scheduled and conducted. TRA will assign support staff to maintain and manage a schedule so that the WVDPT



program can efficiently grow and so that WVDPT personnel are able to stay engaged in and aware of all program activities through a known, formal process.

4.5 Reporting Requirements

TRA is highly experienced in assisting SSO clients with the FTA's annual reporting requirements. They include a general certification that the state has a compliant SSO program. The FTA also requires a more detailed annual report with information such as accident and hazard listings, an audit schedule overview, and program stakeholder information.

The annual report is comprised of a web-based template (though the process has reverted to a spreadsheet recently due to technical issues). The report includes information on program management (including updates and modifications to the transit agency's safety and security program documentation, as well as the PRT's program documents and level of effort used to carry out required oversight activities), three-year review activities completed, accidents and incident investigations (including probable cause), corrective action plans, and hazard management.

As required, TRA will utilize this FTA reporting template (and/or any updated FTA reporting template) to prepare the annual report. TRA will file and organize the information required for this report and analyze safety data as required. TRA understands the information required in the annual report and will prepare this report effectively and efficiently. Any three-year safety and security reviews completed within a given calendar year, as well as any findings from those reviews, will be summarized in the FTA annual report. TRA will also note any revisions made to the West Virginia Program Standard as part of the FTA annual report.

SSO agencies are required to submit documentation to FTA showing that the SSPP has been reviewed and approved by WVDPT on an annual basis. TRA has performed numerous such reviews for other SSO clients. TRA will assist WVDPT in providing certification to FTA, showing that revisions to the SSPP has been reviewed and approved using completed checklists and formal letters of approval, as appropriate.

TRA has assisted numerous SSO clients in successfully preparing annual and periodic submissions to the FTA, including, but not limited to, Pennsylvania, Maryland, the Tri-State Oversight Committee, Virginia, Florida, Illinois, Minnesota, and Utah. As such we are very familiar with the report requirements and templates. We also are able to help states like West Virginia tailor their report responses to ensure maximum acceptance from FTA, and to avoid conflict with other sources of data such as the National Transit Database.

4.6 WVDPT Triennial On-Site Safety and Security Review of the PRT

TRA has a strong history of planning, executing, and reporting on SSO triennial reviews. Our staff specializes in on-site audits, records reviews, technical interviews, and safety analyses. All members of our proposed team have completed multiple on-site audits and reviews, and have participated in all aspects of review planning and execution.

TRA will draft an SSPS (see above) that outlines the review process. While that process will be finalized with WVDPT, typically it includes the following steps:

1. Plan the triennial review period based on WVDPT startup date, FTA requirements, and any MAP-21 inputs that the FTA may have



2. Notify the PRT of the intended review period, in accordance with the notice requirements of the SSPS (typically notification is made months ahead of time, and for the PRT, the audit period is likely to be approximately one work week)
3. Internally, assign audit areas to the auditors according to expertise and overall review schedule
4. Author and send a document request to the PRT, typically seeking plans, procedures, rules, and completed sample documents; analyze documents in advance of on-site activities, make minor modifications to checklists as needed based on document review
5. Finalize an audit schedule that incorporates reviewer expertise, PRT staff time and availability, and time requirements for each review area
6. Conduct the on-site review, typically including the following steps:
 - a. Opening meeting, including going over the on-site review team, the audit process, and the review schedule
 - b. Conduct individual audits in each technical area of the SSPP and SEPP, according to checklists developed with the SSPS
 - c. Closing meeting with preliminary findings and overall status of the audit
7. Request and analyze any additional information identified during the on-site review period; review additional records and documents received on site.
8. Compile preliminary findings for publication to the PRT (after review and input from WVDPT)
9. Author a draft report for WVDPT comment, revise for WVU comment, and finalize based on any additional comments or relevant information received
10. Review PRT-submitted CAPs and recommend WVDPT approval or additional modifications, as appropriate
11. Work with the PRT to integrate corrective action plans into the ongoing CAP process, according to SSPS requirements

In some of our SSO projects, including Pennsylvania (where the concept originated), Chicago, Minnesota, and Washington DC, TRA conducts *ongoing* triennial reviews on behalf of the SSO program. This approach also is in line with FTA written guidance and audit recommendations, which indicate that states should audit the safety elements (21 elements under the Part 659 rules currently in place) and security elements (5 current) on an ongoing basis over a three-year period. [Also, note that the FTA recommends that rail transit agencies use this same, ongoing approach to their own internal audits.] This methodology has many advantages including:

- Increased interactions and relationship building between WVDPT and WVU
- More exposure to ongoing safety, security, operations, and maintenance, including issues outside of the stated audit scope
- Significantly reduced learning curve for auditors, because the time between audits is weeks or months, not three years
- Audits can be combined with other on-site activities, often resulting in efficiencies for all stakeholders

While this section is oriented toward a triennial review, as stated in the RFP, TRA will recommend to WVDPT that it consider an ongoing audit program, with the audits distributed over the three-year cycle.



4.7 PRT FTA Audits

There are several types of inquiries and audits that the FTA may make of WVU, and of the WVDPT SSO program overall. In TRA's experience, they include:

- FTA audits of WVU safety, security, operations, and maintenance
- FTA audits of WVDPT's SSO program (typically triennial)
- Periodic FTA safety advisories, bulletins, and technical inquiries (may be addressed to WVU, WVDPT, or both)
- Periodic FTA inquiries about specific accidents or accident reporting (may be addressed to WVU, WVDPT, or both)

The FTA conducts periodic and as-needed audits and inquiries of both SSO programs and the rail transit agencies they oversee. TRA has worked closely with several of its clients to prepare for, participate in, and respond to such audits and inquiries. TRA can provide audit support in the following areas:

- Responding to pre-audit questionnaires and document requests
- Attending FTA audits on-site to provide background and context, both for the SSO program being audited, as well as from the FTA's rules and overall audit profile
- Analyzing and respond to FTA's draft and final reports
- Formulating corrective action plans where needed
- Ensuring that all ongoing SSO program activities are conducted with awareness of FTA rules and audit requirements (ongoing activity, includes items such as how accidents are investigated and reported, how CAP logs are kept, how audit reports are written, etc.)
- Performing mock audits to determine any program weaknesses or deficiencies versus FTA rules and recent audit guidance (ongoing and as-needed activity based on WVDPT direction)

From time to time, the FTA (and occasionally NTSB or other agencies, often through FTA) will send an inquiry (a *Safety Advisory* or similar) to SSO programs, transit agencies, or both. TRA has helped several of its SSO clients, and covered transit agencies, to analyze and respond to these FTA requests. The scope of such requests varies – some are one question, while others may require multiple responses and even detailed backup data. Recent inquiry topics have involved stop signal violation hazards, roadway worker protection and safety, and tunnel emergency equipment.

In one particularly relevant example for the WVU PRT, the NTSB through the FTA inquired about the use of electrical/electronic jumpers at transit agencies. The accident that spurred the inquiry involved an automated people mover, and the NTSB determined that a Technician left a jumper in place during troubleshooting. Doing so defeated a safety on the APM system, and resulted in a collision with the wall at the end of the guideway.

TRA has performed detailed field investigations, interviews, records checks, and verification associated with such safety inquiries. If such an inquiry were issued that affected WVDPT, we would work closely with the State to formulate a response plan, and recommend a structure for the SSO program and/or the PRT to respond to specific inquiry elements, and for WVDPT to coordinate the response to the FTA. In many cases, TRA is also working on the same inquiry with other transit agencies. Often, we also have first-hand knowledge of the specific accident or condition that prompted the FTA inquiry. We will bring all relevant information and experience



to its work with WVDPT, and ensure that the we, the State, and the PRT can coordinate on the most complete and correct response possible.

The FTA (and sometimes other parties, such as departments within the State) will sometimes make an informal inquiry about a specific accident. This arises especially when the accident or incident is featured in the news or results in significant social media interaction. TRA would recommend that WVDPT take a proactive approach with its interactions inside the State and with the FTA, to ensure that any potentially noteworthy accidents are reported as soon as possible, to assure regulatory and state stakeholders that the SSO program is actively investigating the accident.

4.8 General Administration

As noted in section 4.4.8, page 32, of this proposal, TRA is experienced in supporting its clients with strong project management, and with important administrative duties such as coordination of meetings, development of reports, data analyses, and even managing of documents through clients' document management systems. TRA Analysts are highly knowledgeable in their roles, supporting the overall effort of developing all program documentation and reports associated with SSO program administration (i.e., audit reports, periodic project updates, FTA annual report, etc.) TRA would work with WVDPT to formalize practices and introduce any new ones that would further enhance the program.

The exact administrative activities for WVDPT's SSO program will vary according to the final SSPS, and based on current activities (e.g., accidents, hazards, upcoming meetings, etc.). TRA will work closely with WVDPT to identify best practices from our other projects and our work with the FTA, and to help implement administrative activities that support and promote the West Virginia SSO program. We are particularly proud of our work in helping to plan, track, and report on critical SSO program administrative activities, and encourage WVDPT to review this area with our project references.



Because many of TRA's proposal responses incorporate related and sometimes overlapping material, the sections below contain references to previous proposal sections. TRA has strived to be economical in its proposal preparation, and we ask that WVDPT consider specific material, as referenced in this section, in answer to the RFP questions.

Attachment B: Mandatory Specification Checklist

Section 4, Subsection 5.1: Vendor shall provide a demonstrable history of being under contract to provide to a state agency 49 CFR Part 674/659-compliant planning, inspection, investigative, auditing, and report services for Rail Fixed Guideway Public Transit Systems and provide a minimum of three contracts.

TRA fully understands that WVDPT needs a vendor who has an extensive history of being under contract with a state agency, providing 49 CFR Part 674/659 support.

In Section 4, subsection 4.4.4, of this proposal, TRA presents six SSO contracts, and, out of the six, three contracts are specifically involved with RFGPTS (*Port Authority of New York and New Jersey, Michigan DOT, and Florida DOT*). In addition, TRA presents its knowledge and background of 674/659 in Section 4, subsection 4.4.3. TRA has assisted several agencies with transitioning into MAP-21 compliance. This service has included development of MAP-21 Certification Work Plans, Technical Training Plans, Individual Training Plans, and enhancements to Program Standards and Procedures, Accident/Incident Investigation Procedures, audit procedures, and Corrective Action Plan review and approval procedures. TRA is currently supporting new SSO program documentation development for several of our clients and will continue to develop and provide enhancements to necessary documentation throughout the transition into MAP-21 compliance.

A complete list of our current and most recent SSO consulting projects is found in the comprehensive table in Attachment A.

Section 4, Subsection 5.2: Vendor shall demonstrate, by providing relevant examples, of a capability to respond to emergency situations in Morgantown, WV within 24 hours of receiving an alert. Vendor shall also provide examples of an adequate level of attendance at other relevant meetings, demonstrations, etc.

TRA is prepared to support WVDPT, and ensure response to emergency situations in Morgantown within 24 hours of receiving an alert. As noted above, TRA's team has been selected with an eye toward proximity, responsiveness, and availability.

In Section 4, subsection 4.4.1, of this proposal, the *Emergency Situations* section on page 9 demonstrates our capabilities of being responsive to accident and hazard investigations. It also states that one of our analysts is based in Pittsburgh, PA, and can arrive in Morgantown in less than two hours. Other TRA team members based in Philadelphia and Washington DC can be in Morgantown in less than 24 hours.



Section 4, Subsection 5.3: Vendor shall demonstrate previous successful interaction with the FTA; an example may consist of another state's program where the vendor has participated in similar work products as described in this document and their subsequent approval by the FTA.

TRA fully understands WVDPT needs a vendor who has had successful interactions with the FTA. As part of our ongoing SSO projects, we have weekly interaction with FTA staff and contractors, including personnel from FTA's Transit Safety Oversight office (DC), its regional offices, and the FTA's SSO program support contractor. We also have extensive experience with FTA audits of TRA's SSO projects (see table in Attachment A response).

As shown in Section 4, subsection 4.3, the table presented displays current and past SSO clients, as well as the services provided for our clients. Our work with other agencies has involved federally-mandated three-year (or triennial) safety and security reviews, pre-revenue service reviews of new rail service, participation in FTA audits of SSO agencies, and daily, ongoing oversight of rail fixed guideway agencies to ensure compliance with current regulations (Part 659) and future changes stemming from MAP-21.

Section 4, Subsection 5.3.1: Vendor shall submit organizational chart and personnel listing with the staff's credentials related to: SMS, Hazard Management practices in RFGPTS, transit rail investigative practices/procedures

Our organization structure is presented on page 12 and displays descriptions of each member's SMS, Hazard Management, and Transit Rail investigative background. We also present full resumes (in Appendix A), indicating detailed information on each team member's SSO and educational experience.



TRA EEO/Affirmative Action Statement

TRA is committed to Equal Employment Opportunity (EEO), and preventing employment discrimination. TRA has implemented a number of measures to pursue the participation of minorities, women, and persons with disabilities on all of its engagements. The TRA Project Principal who is leading the TRA Team, Daniel Hauber, and TRA's Contract Administrator, Patricia Paxson, will be responsible for overseeing adherence to EEO laws and policies, and ensure that employment actions regarding staffing and managing the work will be carried out in a non-discriminatory way.

In general, all TRA supervisors (President, VPs, Project Managers) must be aware of their individual responsibilities to ensure adherence to TRA's EEO and Affirmative Action Policy. Every supervisor is charged with the overall responsibility of monitoring compliance with TRA's Equal Opportunity and Affirmative Action Policy and for coordinating and implementing the provisions of TRA's Affirmative Action Plan.

For recruitment, TRA includes the phrase "Equal Opportunity – Affirmative Action Employer" in all printed employment advertisements. Media and organizational sources specializing in recruitment and referral of women, people of color, and individuals with disabilities will be provided copies of vacancy announcements as determined practicable and useful by TRA. TRA also ensures that we document the recruitment process and communicate with the Hiring Managers.



Appendix A: Resumes

Daniel Hauber

Transportation Resource Associates, Inc.

Vice President

Years of Transit Experience: 20

Years with TRA: 20

Daniel Hauber is a Vice President at TRA and has been an integral part of its state safety oversight technical and management teams for his entire career. He specializes in transportation projects related to safety, operations, and maintenance. Mr. Hauber has been a technical auditor for rail transit safety oversight in more than 12 states and jurisdictions, and has managed the teams for several of those projects. He provides states and oversight agencies assess their covered transit agencies, and to stay in compliance with FTA requirements and best practices. He has conducted audits in areas including system safety, security, operations, training, fixed facilities maintenance, vehicles maintenance, and safety and security certification. He has helped states with both triennial reviews and ongoing safety oversight programs.

Education

- Masters Certificate, Project Management – Villanova University - 2013
- M.B.A., Business Administration – Temple University - 2004
- B.A., Urban Studies – University of Pennsylvania - 1997

Selected Relevant Experience

Pennsylvania Department of Transportation (PennDOT) – Rail Transit Safety Review Program – Philadelphia, Pittsburgh, and Johnstown PA

Mr. Hauber is the project principal for Pennsylvania's Rail Transit Safety Review Program (RTSRP), and has been a primary technical auditor in areas including safety (accident investigation, safety certification, corrective action plans, internal audit oversight, and hazard management), training, maintenance and infrastructure, and operations. In addition to auditing responsibilities, Mr. Hauber has been a key member of the RTSRP team for activities including accident investigations, system safety and security plan review and approval, corrective action plan monitoring, internal and external reporting, and overall state safety oversight program direction. He was previously the project manager for the program (since delegated within TRA). Mr. Hauber has been part of the RTSRP team since 1997.

Reference: Elizabeth Bonini, PennDOT RTSRP Manager, 717-787-1207

Minnesota Department of Public Safety (DPS) – Rail Safety Oversight Program – Minneapolis and St. Paul, MN

Mr. Hauber currently serves as the project principal for Minnesota rail safety oversight. He worked with the Minnesota State Patrol to formulate and implement its state safety oversight program starting in 2004, and continues to work with state officials to ensure program viability and effectiveness. Mr. Hauber started as the contract project manager (since delegated within TRA), and continues to serve as a senior advisor as the program ensures its compliance with MAP-21 requirements. Mr. Hauber has been responsible for technical and field audits in areas including safety (including accident investigation, safety certification, corrective action plans, internal audit oversight, and hazard management), security, operations, training, maintenance, and new/capital projects (including three substantial light rail extensions).

Reference: Timothy J. Rogotzke, Minnesota Rail Safety Oversight Program Manager, 651- 642-0661



Maryland Department of Transportation (MDOT) – State Safety Oversight Program – Baltimore, MD

Mr. Hauber has been responsible for several on-site audits and reviews of Baltimore MTA rail operations, maintenance, and related topics, affecting both light rail and heavy rail modes. Specific audit topics have included operations, training, rule compliance, signals maintenance, traction power maintenance, track maintenance, roadway worker protection, and safety management. Mr. Hauber has been part of the MDOT project team since 2001, and has been a part of five on-site triennial audits.

Reference: Bud Frank, MDOT Rail Safety Oversight Program Manager, 410-865-1161

Florida Department of Transportation (FDOT) – Rail Fixed Guideway Transit Safety and Security Oversight Program – Jacksonville, Miami, Tampa, and Fort Lauderdale, FL

Mr. Hauber has been a technical auditor on the FDOT team, and has been responsible for reviewing maintenance, operations, and safety topics for both Miami Metro Rail (metro/heavy rail mode) and Miami Metro Mover (automated peplemover). Mr. Hauber has audited Miami-Dade Transit safety in maintenance topics including track, bridges and structures, train control, facilities, and traction power. He has also been a primary auditor in areas including roadway worker protection, operations, and system safety. Mr. Hauber has also conducted on-site audits in areas including rail operations, vehicle maintenance, and infrastructure maintenance at the Jacksonville Skyway. He has been part of the FDOT project team since 2005.

Reference: Victor Wiley, CPM, former Transit Safety Programs Manager, 850-320-3728

Illinois Department of Transportation (IDOT) – State Safety Oversight Program – Chicago and St. Clair County, IL

Mr. Hauber serves as the project principal for the IDOT state safety oversight program. He works closely with the project manager and technical team to help IDOT transition into its new SSO role, and to meet emerging FTA and MAP-21 requirements. He has also completed technical audits as part of IDOT's triennial on-site review. Mr. Hauber completed similar program-level and auditing work for the RTA SSO program, which oversaw the CTA from 2001-2016, and the St. Clair County SSO program, which was previously responsible for Bi-State/Metro oversight.

Reference: Jim Hickey, IDOT SSO Section Manager, 312-793-0436

Regional Transportation Authority (RTA) – State Safety and Security Oversight Program of Chicago Transit Authority (CTA) – Chicago, IL

Mr. Hauber was part of the RTA state safety oversight team from 2001 through the program's conclusion in 2016. He participated in five RTA triennial audits in areas including infrastructure maintenance (facilities, stations, signals, track, structures, and traction power elements), operations, railcar maintenance, training, and system safety. Mr. Hauber also assisted RTA with high-level program direction, and led several special audits and investigations, including of critical safety and whistleblower issues, accident investigations, corrective action plan follow-up, and special infrastructure maintenance assessments. He previously served as the contract project manager (since delegated within TRA), and served as a senior advisor to the program until its closure.

Reference: Jim Hickey, IDOT SSO Section Manager, 312-793-0436



Oregon Department of Transportation (ODOT) – State Safety and Security Oversight Program – Portland, OR

Mr. Hauber has worked with ODOT's state safety oversight program since 1998, and previously acted as the contract project manager (since delegated within TRA). He has been responsible for organizing and implementing several triennial audits and pre-revenue service reviews, and has participated in eight such audits and reviews. During his work for ODOT, Mr. Hauber has been responsible for technical audits in areas including track, signals, vehicles, structures, and traction power maintenance, operations and supervision, training, and safety functions. His audit and project management work has related to both the TriMet light rail system and the Portland Streetcar.

Reference: Lynda Horst, ODOT SSO Program Manager, 503-986-4096

Washington State Department of Transportation (WSDOT) – State Safety and Security Oversight Program – Seattle and Tacoma, WA

Mr. Hauber worked with the WSDOT state safety oversight program from 2002 through 2016, and during that time planned and implemented several triennial reviews of the Seattle Waterfront Streetcar, Seattle Monorail, Tacoma Link, Central Link, and South Lake Union Streetcar. Mr. Hauber conducted pre-revenue service assessments of the two Link light rail systems. He led audits in areas including operations, system safety functions (including accident investigation, safety certification, corrective action plans, internal audit oversight, and hazard management), infrastructure maintenance (including track, signals, traction power, stations, and structures), and training. Mr. Hauber also contributed to several security-related audits under the WSDOT program.

Reference: Mike Flood, Rail Transit Safety & Security Officer, 206-464-1291

Texas Department of Transportation (TxDOT) – State Safety and Security Oversight Program – Dallas and Houston, TX

Mr. Hauber has been responsible for leading technical audits including track, signals, traction power, elevator/escalator maintenance, emergency equipment, operations, and technical training. Mr. Hauber has been a key team member for six total triennial audits, three audits at DART in Dallas and three at Houston Metro.

Reference: Susan Hausmann, TxDOT SSO Manager, 512-416-2833

Port Authority of New York and New Jersey (PANYNJ) – AirTrain Safety Oversight Board (ATSOB) – Newark, NJ and New York, NY

Mr. Hauber has been part of on-site review teams for triennial audits of both the Newark and JFK Airtrain automated fixed guideway systems. He has been responsible for technical audits in areas including track and guideway maintenance, train control, traction power, passenger stations, elevator/escalator maintenance, training, and operations control centers. Mr. Hauber has been a significant part of technical audits in system safety areas as well, including configuration management, safety certification, hazard management, and accident investigation. He has participated in seven comprehensive on-site audits. Mr. Hauber has also led several on-site incident and hazard investigations, both at Newark and JFK AirTrain sites.

Reference: James Keane, PANYNJ General Manager, Operations Safety, 201-216-2821

Professional Activities and Affiliations

- Project Management Professional, Certificate No. 1681000 – Project Management International
- Graduate, Citizens Academy, 2005 – Federal Bureau of Investigation, Philadelphia Office
- Delegate, 2017 APTA International Study Mission to Asia (Hong Kong, Singapore, Japan)



William J. Matthews

Transportation Resource Associates, Inc.

Senior Consultant

Years of Transit Experience: 34

Years with TRA: 5

Mr. Matthews is a transportation subject matter expert specializing in transit system operations and maintenance. Mr. Matthews partners with regional and metropolitan transportation systems and State Safety Oversight Agencies to ensure system regulatory compliance and provide technical guidance. Mr. Matthews also delivers engineering and management solutions to transit agencies and transit system “new starts” regarding operations, system maintenance and safety certification processes. Mr. Matthews has over 30 years of experience in commuter railroad and intercity rail transit operations, system equipment maintenance, accident and industrial occupational health and safety.

Education

- M.S., Public Safety Management - Saint Joseph’s University, Philadelphia, PA - 2006
- B.S., Technical and Industrial Administration – Widener University, Chester, PA - 1999
- Certified Safety and Security Director (CSSD) - World Safety Organization
- Certificate -Transportation Safety and Security Program (TSSP), U.S. Department of Transportation, Transportation Safety Institute

Certifications

Mass Transportation Safety and Security

- Licensed Class 3 Motor Vehicle Inspector, Pennsylvania Department of Transportation
- National Incident Emergency Management (NIMS 100, 200,700 & 800)
- 30 Hour General Industry Safety and Health, Occupational Safety and Health Administration
- Certified Safety and Security Director, World Safety Organization
- Transportation Safety Institute Training:
 - Transit Rail Incident Investigation
 - Effectively Managing Transit Emergencies
 - Transit System Security
 - Fundamentals of Bus Collision Investigation
 - Immediate Problems in Bus Collision Investigation
 - Transit Bus System Safety
 - Transportation Safety and Security Program Certificate (TSSP)

Emergency Services Training:

- Fire Inspector I, NFPA, National Professional Qualifications Standard
- Fire Fighter 1, NFPA, National Professional Qualifications Standard
- Fire Fighter II, NFPA National Professional Qualifications Standard
- Fire Instructor I, NFPA National Professional Qualifications Standard
- Fire Instructure II, NFPA National Professional Qualifications Standard, Fire Instructor II
- Vehicle Rescue Technician, NFPA National Professional Qualifications Standard
- Hazardous Materials Operations, NFPA National Professional Qualifications Standard



Selected Relevant Experience

Pennsylvania Department of Transportation (PennDOT) – Rail Transit Safety Review Program (RTSRP) – Philadelphia, Pittsburgh, and Johnstown, PA

Mr. Matthews assists the PennDOT SSO team comply with its internally defined schedule for audits and conducts intensive quality control reviews. He also conducts three-year safety and security reviews of system operations and maintenance processes.

Reference: Elizabeth Bonini, PennDOT RTSRP Manager, 717-787-1207

Florida Department of Transportation (FDOT) – Rail Fixed Guideway Transit Safety and Security Oversight Program – Jacksonville, Miami, Tampa, and Fort Lauderdale, FL

Mr. Matthews continues to work with state safety oversight staff coordinating the on-going activities of the statewide SSO program administered by the Florida Department of Transportation. This project includes oversight support to transit agencies in Tampa, Jacksonville, Miami and the Miami International Airport regarding regulatory safety compliance reviews, corrective action plan activity, accident/incident/hazardous condition investigations, standard operating procedures, vehicle maintenance processes and safety and security reviews.

Reference: Victor Wiley, CPM (former Transit Safety Programs Manager), 850-320-3728

Illinois Department of Transportation (IDOT) – State Safety Oversight Program – Chicago and St. Clair County, IL

Mr. Matthews is part of TRA's SSO team for the Illinois Regional Transportation Authority's state safety oversight program mainly for the Chicago Transit Authority (CTA). As part of that team, he continuously completes technical safety reviews of CTA's subway elevated rail system in areas including safety and security certification, traction power distribution, rail vehicles, tunnel ventilation system and fire and life safety systems.

Reference: Jim Hickey, IDOT SSO Section Manager, 312-793-0436

Maryland Department of Transportation (MDOT) – Rail Safety and Security Oversight Program – Baltimore, MD

Mr. Matthews provides technical support for the Maryland's SSO program, which oversees the Maryland Transit Administration's Light Rail and Metro heavy rail systems. Mr. Matthews recently conducted a review of MTA tunnel ventilation and fire life safety systems including equipment maintenance, training and inspection processes and associated emergency procedures.

Reference: Bud Frank, MDOT Rail Safety Oversight Program Manager, 410-865-1161

Minnesota Department of Public Safety (DPS) – Rail Safety Oversight Program – Minneapolis and St. Paul, MN

Mr. Matthews supports the TRA Project Manager conducting safety and regulatory compliance audits for St Paul Metro Transit's Three-Year Safety and Security Reviews of traction power, vehicle, and facilities maintenance.

Reference: Timothy J. Rogotzke, Minnesota Rail Safety Oversight Program Manager, 651- 642-0661

Tri-State Oversight Committee (TOC) –State Safety & Security Oversight Program of Washington Metropolitan Area Transit Authority (WMATA) – Washington, DC



Mr. Matthews served as a technical expert to Washington, DC Metrorail safety certification process for procurement of the new 7000 series rail car and rail vehicle maintenance issues. He is actively involved in the oversight of the WMATA accident investigation process and corrective action programs, and interfacing regularly with System Safety personnel to address findings and recommendations resulting from accident and hazard investigations.

Reference: Sharmila Samarasinghe, TOC Vice Chair, 703-259-3248

Port Authority of New York and New Jersey (PANYNJ) – AirTrain Safety Oversight Board (ATSOB) – Newark, NJ and New York, NY

Mr. Matthews assists the TRA's AirTrain Safety Oversight Board team with the AirTrain rail systems at JFK and Newark International Airports. Mr. Matthews provides technical guidance and support in system maintenance and reviews accident/incident/hazard investigation reports and corrective action plans.

Reference: James Keane, PANYNJ General Manager, Operations Safety, 201-216-2821

District of Columbia Fire and Emergency Medical Services (DCFEMS) – State Safety and Security Oversight Program – Washington, DC

DCFEMS is the State Safety Oversight agency for the Washington, D.C. Streetcar System. Mr. Matthews is TRA's technical consultant for the system operations and maintenance and system safety certification process. He continuously reviews design, construction and operational verification for system certification. Additionally, he also reviews system safety program plan, related sub-plans, and key safety-related elements of the project.

Reference: Michael Walko, Captain, DCFEMS Program Manager DC SSO Office, 202-727-1612

Missouri Department of Transportation (MoDOT) – Rail Safety and Security Oversight Program – St. Louis and Kansas City, MO

Mr. Matthews provided subject matter expert support for the Kansas City Streetcar new start project and the St. Louis MetroLink Light Rail System Three Year Safety and Security Review. Mr. Matthews conducts safety and regulatory compliance audits for transit system equipment and maintenance processes, vehicle maintenance processes, communications and tunnel/fire life safety equipment maintenance and inspection processes.

Reference: Justin Sobeck, MoDOT SSO Manager, 618-201-3552

Utah Department of Transportation (UDOT) – State Safety and Security Oversight Program – Salt Lake City, UT

Mr. Matthews continues to play a key role in assisting UDOT state safety oversight staff with operations and maintenance technical support with the Utah Transit Authority (UTA) TRAX system.

Reference: Jim Golden, UDOT SSO Officer, 801-360-0052

Professional Activities and Affiliations

- Member, Pennsylvania Association of Arson Investigators
- Member, Folcroft Volunteer Fire Department. Folcroft, PA



Joshu Shih

Transportation Resource Associates, Inc.

Project Manager

Years of Transit Experience: 7

Years with TRA: 7

Mr. Shih is a transit operations expert who manages and participates in numerous TRA reviews of public transportation operations, maintenance, safety, and security across North America. During his original tenure at TRA from 2007 and 2010, and since his return to TRA in 2013, Mr. Shih has served in a variety of roles in TRA projects, from project management and analysis to subject matter expertise in transit operations and operations training. Currently, Mr. Shih runs TRA's Washington, DC-area office. Mr. Shih manages several State Safety Oversight (SSO) project teams, serving as the main TRA point of contact to SSO clients and coordinating TRA services provided to clients. Mr. Shih applies his overall expertise in transit, transit operations and operations training, delivering practical and useful work products to TRA's clients throughout state departments of transportation and the North American public transportation industry.

Education

- M.C.P., City and Regional Planning – University of Pennsylvania, 2007
- B.A., Psychology and Finance – Washington University in St. Louis, 2002

Certification

- Transit Safety & Security Program (TSSP) Certificate – U.S. Department of Transportation, Transportation Safety Institute (TSI) – December 2016

Selected Relevant Experience

Tri-State Oversight Committee (TOC) – State Safety & Security Oversight Program of Washington Metropolitan Area Transit Authority (WMATA) – Washington, DC

Mr. Shih is TRA's project manager for support to the TOC, as well as TRA's on-site staff member in the Washington, DC metropolitan area. He manages TRA staff in their technical assistance for TOC and supports TOC in review and analysis of accident/incident investigations, corrective action plans, TOC's transition into the forthcoming Metro Safety Commission, and review of TOC policy matters. Mr. Shih also supports TOC in review of safety and security certification of WMATA capital projects, including Phases 1 and 2 of the Metrorail Silver Line and the 7000-Series Railcar Procurement. Mr. Shih participates in TOC triennial safety and security audits of Metrorail, during which he performs field inspections of WMATA vehicles, infrastructure, and facilities; reviews WMATA documents; and interviews WMATA personnel. Mr. Shih has served as a subject matter expert in TOC audits of WMATA stations maintenance and rail operations and operations training. Mr. Shih also supports TOC in its coordination with FTA WMATA Safety Oversight (FWSO) in FWSO's safety oversight duties over WMATA.

Reference: Sharmila Samarasinghe, TOC Vice Chair, 703-259-3248

Texas Department of Transportation (TxDOT) – State Safety and Security Oversight Program – Dallas and Houston, TX

Mr. Shih managed the TRA project teams that performed the 2015 TxDOT Three-Year Reviews of the Metropolitan Transit Authority of Harris County (METRO) and the Dallas Area Rapid Transit (DART) light rail systems. Mr. Shih was also a key member of the TRA team that performed the 2008 TxDOT Three-Year Review of Houston METRORail. During these reviews, Mr. Shih coordinated with METRORail and DART to fulfill TxDOT's document requests and to



set each respective review's on-site schedule, and assigned TRA subject matters to review areas in Houston and Dallas. In the 2015 Three-Year Review of METRORail, Mr. Shih performed safety and stations inspections, reviewed METRO's drug and alcohol testing program, and interviewed METRO personnel to discuss contractor safety training and requirements. In the 2015 Three-Year Review of DART, Mr. Shih led the Rail Operations and Operations Training and Roadway Worker Protection reviews. Finally, Mr. Shih coordinated with TxDOT to deliver Three-Year Review reports to METRO and DART with tangible, practical safety and security recommendations. Mr. Shih is currently managing the TRA project teams that are providing technical assistance to TxDOT in reviewing and closing Corrective Action Plans (CAPs) resulting from the 2015 Three-Year Reviews of METRORail and DART. In addition to continuing support to TxDOT in oversight of METRO and DART, Mr. Shih is also managing TRA's support to TxDOT in conducting a Special Review of the McKinney Avenue Transit Authority (MATA) in Dallas.

Reference: Susan Hausmann, TxDOT SSO Manager, 512-416-2833

Oregon Department of Transportation (ODOT) – State Safety and Security Oversight Program – Portland, OR

Mr. Shih manages TRA's support the Oregon Rail Transit Safety and Security Oversight program. Mr. Shih coordinated with ODOT to schedule and plan the 2015 ODOT Pre-Revenue Reviews of the Portland Streetcar "Complete the Loop" extension and the Tri-County Metropolitan Transportation District of Oregon's (TriMet's) Metropolitan Area Express (MAX) Orange Line in July 2015. Mr. Shih evaluated stations and grade crossings for both 2015 Pre-Revenue Reviews. Mr. Shih also managed the TRA team that assisted ODOT in performing the 2015 ODOT Triennial Safety and Security Reviews of the Portland Streetcar and TriMet MAX in October 2015. Mr. Shih reviewed rail operations and operations training for both of these reviews, during which he interviewed Portland Streetcar and TriMet operations personnel, performed ride checks aboard revenue vehicles, shadowed Field Supervisors, and reviewed transit agency operations and operations training records. Mr. Shih is currently managing TRA's support of ODOT in enacting State Safety Oversight program enhancements to achieve MAP-21 compliance.

Reference: Lynda Horst, ODOT SSO Program Manager, 503-986-4096

Maryland Department of Transportation (MDOT) – Rail Safety and Security Oversight Program – Baltimore, MD

Mr. Shih has served as a subject matter expert for MDOT in variety of reviews of the Maryland Transit Administration (MTA). In the 2013 MDOT Triennial Review of MTA, Mr. Shih audited MTA Light Rail and Metro Operations and Operations Training, during which he interviewed MTA personnel and performed field evaluations of MTA Light Rail and Metro train operations, Control Center operations, and operations training programs. Mr. Shih also supported MDOT in its execution of the 2014 Federal Transit Administration (FTA) Right-of-Way Worker Protection Safety Advisory and 2015 FTA Tunnel Ventilation Systems Safety Advisory. During the execution of both of these Safety Advisories, Mr. Shih interviewed MTA personnel; reviewed MTA plans, policies, and procedures; and evaluated MTA practices in the field.

Reference: Bud Frank, MDOT Rail Safety Oversight Program Manager, 410-865-1161

Pennsylvania Department of Transportation (PennDOT) – Rail Transit Safety Review Program (RTSRP) – Philadelphia, Pittsburgh, and Johnstown, PA

Mr. Shih performs a variety of operational safety reviews in the field at two of the rail transit systems covered by RTSRP: Southeastern Pennsylvania Transportation Authority (SEPTA), serving Philadelphia, and the Port Authority of Allegheny County (PAAC), serving Pittsburgh.



Mr. Shih previously maintained the RTSRP accident/incident database and met regularly with SEPTA System Safety personnel to discuss open accident/incident investigations. Mr. Shih has performed a variety of RTSRP reviews at both SEPTA and PAAC, including subway emergency egress and equipment; subway tunnel inspections; operations and operations training; operations control center; procurement; traction power; rule compliance; vehicle inspections; station safety and maintenance; shop safety inspections; and roadway worker protection.

Reference: Elizabeth Bonini, PennDOT RTSRP Manager, 717-787-1207

Utah Department of Transportation (UDOT) – Rail Transit State Safety Oversight Program – Salt Lake City, UT

Mr. Shih served as the subject matter expert on the TRA team performing the pre-revenue service review of the Utah Transit Authority (UTA) S-Line Streetcar. Mr. Shih interviewed UTA operations and operations training personnel – including management, supervisory, and front-line personnel – and performed field observations of the S-Line alignment. Mr. Shih also reviewed UTA’s training program documents and training records for the S-Line. Mr. Shih issued several recommendations to UTA concerning operations training that assisted UTA in readying its train operators for S-Line revenue service.

Reference: Jim Golden, UDOT SSO Officer, 801-360-0052

Regional Transportation Authority (RTA) – State Safety and Security Oversight Program of Chicago Transit Authority (CTA) – Chicago, IL

Mr. Shih participated in two triennial reviews of CTA’s rail transit system, in 2007 and 2010. Mr. Shih reviewed system security and emergency preparedness, stations, vehicles, and operations rules compliance in the field. Mr. Shih also assembled the final report for the 2007 review, which resulted in tangible, actionable recommendations from RTA to CTA for improving specific system safety and security areas on the CTA rail system.

Reference: Jim Hickey, IDOT SSO Section Manager, 312-793-0436

Port Authority of New York and New Jersey (PANYNJ) – AirTrain Safety Oversight Board (ATSOB) – Newark, NJ and New York, NY

Mr. Shih provided support for the AirTrain Safety Oversight Board’s continuing safety and security oversight of the on-airport AirTrain rail systems at JFK International Airport in New York and Newark Liberty International Airport in Newark, New Jersey. Mr. Shih participated in multiple incident investigations at both properties, including site visits and equipment inspections. Mr. Shih also assembled the final report for the 2008 Triennial Review of AirTrain Newark, which resulted in several recommendations to PANYNJ for improving AirTrain Newark system safety.

Reference: James Keane, PANYNJ General Manager, Operations Safety, 201-216-2821



Michael Blauvelt

Transportation Resource Associates, Inc.

Project Analyst

Years of Transit Experience: 2

Years with TRA: 2

Mr. Blauvelt is the lead analyst for the Pennsylvania Rail Transit Safety Review Program, the state safety oversight program of the Pennsylvania Department of Transportation, which includes ongoing review of routine operations and maintenance. He works closely with subject matter experts to assist in rail transit safety and security assessments and provides assistance to agency specific safety and security programs. Additionally, he provides ongoing support to numerous SSO clients, including the Illinois and Florida Departments of Transportation, Minnesota Department of Public Safety, and Port Authority of New York and New Jersey.

Education

- M.U.P.P., Transportation Planning – University of Illinois-Chicago – 2014
- B.S., Environmental Economics and Policy – University of Illinois-Urbana-Champaign – 2011

Certifications

- Transit System Security—Transportation Safety Institute
- Rail Accident/ Incident Investigation— Transportation Safety Institute
- Rail Accident/ Incident Investigation—SEPTA
- Rail Signaling—National Transit Institute
- Right of Way Certification—SEPTA, PAAC, JTA

Selected Relevant Experience

Pennsylvania Department of Transportation (PennDOT) – Rail Transit Safety Review Program (RTSRP) – Philadelphia, Pittsburgh, and Johnstown, PA

Mr. Blauvelt works as the lead analyst in Pittsburgh to provide coordination and management support to the PennDOT RTSRP. Mr. Blauvelt contributes to ongoing safety and security-related support, including reviews of program safety and security plans, program standard development, internal and external audit coordination and execution, and works with transit agencies to ensure corrective action plans are developed and implemented. As part of his duties, Mr. Blauvelt regularly performs rule compliance assessments, recording incidents and alerting RTAs and PennDOT of the results. In addition, Mr. Blauvelt assists PennDOT with FTA mandated rules compliance, reporting, and program support. In 2017, Mr. Blauvelt was an active participant in the Power workgroup of an NTSB investigation.

Reference: Elizabeth Bonini, PennDOT RTSRP Manager, 717-787-1207

Illinois Department of Transportation (IDOT) – State Safety Oversight Program – Chicago and St. Clair County, IL

Mr. Blauvelt is part of TRA’s team for IDOT’s state safety oversight program. He provides direct support to the accident/incident program, and has worked to develop tools and procedures to help ensure data is accurately captured for trend analysis. Mr. Blauvelt provides ongoing program support and helps review transit agency operating procedures and safety plans. In addition, he has provided support to special maintenance studies, including an analysis of traction power distribution at the Chicago Transit Authority. In 2017, he assisted in the Three-Year Safety and Security Review of the Chicago Transit Authority. He supported on-site reviews of vehicle maintenance, maintenance training, facilities, power, and elevator/escalator



maintenance. Audits included interviews with key personnel, field inspections, and detailed records review. Mr. Blauvelt also provided assistance to final report development and coordination.

Reference: Jim Hickey, IDOT SSO Section Manager, 312-793-0436

Florida Department of Transportation (FDOT) – Rail Fixed Guideway Transit Safety and Security Oversight Program – Jacksonville, Miami, Tampa, and Fort Lauderdale, FL

Mr. Blauvelt assisted in the Three-Year Safety and Security Review of the HART TECO Line Streetcar and the JTA Skyway in 2016. He supported on-site reviews of vehicle maintenance, maintenance training, facilities, procurement, and configuration management. Audits included interviews with key personnel, field inspections, and detailed records review. Mr. Blauvelt also provided assistance to final report development and coordination.

Reference: Victor Wiley, CPM (former Transit Safety Programs Manager), 850-320-3728

Port Authority of New York and New Jersey (PANYNJ) – AirTrain Safety Oversight Board (ATSOB) – Newark, NJ and New York, NY

Mr. Blauvelt assisted in the Three-Year Safety and Security Review of Newark AirTrain in 2015 and 2016. He assisted with on-site reviews of facilities, vehicle, and power infrastructure maintenance, hazardous materials, and fitness for duty. Audits included interviews with key personnel, field inspections, and detailed records review. Mr. Blauvelt also provided assistance to report development and coordination.

Reference: James Keane, PANYNJ General Manager, Operations Safety, 201-216-2821

Minnesota Department of Public Safety (DPS) – Rail Safety Oversight Program – Minneapolis and St. Paul, MN

Ms. Blauvelt provided assistance to the Minnesota Department of Public Safety conducting safety assessments of Metro Transit's Safety Certification, Systems Modification, and Configuration Management programs. Audits included interviews with key personnel, field inspections, and detailed records review. Mr. Blauvelt also provided assistance to report development and coordination.

Reference: Timothy J. Rogotzke, Minnesota Rail Safety Oversight Program Manager, 651- 642-0661

Regional Transportation Authority (RTA) – State Safety and Security Oversight Program of Chicago Transit Authority (CTA) – Chicago, IL

Mr. Blauvelt reviewed the 2016 revision of the Chicago Transit Authority's System Safety Program Plan and provided comments to ensure the plan met SSO program standards and current FTA guidance. In addition, Mr. Blauvelt provided support to verify corrective action plans and detailed where additional efforts were necessary.

Reference: Jim Hickey, IDOT SSO Section Manager, 312-793-0436



Appendix B: Copies of Certifications and Industry Memberships

- American Public Transportation Association: TRA Membership
- Transportation Safety Institute: TSSP Certifications
- World Safety Organization: Affiliate Member, Certified Safety and Security Director
- Project Management Institute: Project Management Professional Certification



Transportation Resource Associates, Inc.

Transportation Resource Associates, Inc.
Suite 1602, 1608 Walnut Street
Philadelphia, PA 19103
Tel: (215) 546-9110 Fax: (215) 546-9120
URL: <http://www.traonline.com>
Member Type: Consultants

Contact: Korach, Kenneth A. (President)
Phone: (215) 546-9110 Fax: (215) 546-9120
Email: kenneth.korach@traonline.com

Office Staff

✓ = Main Contact

| Staff Name | Email | Office Phone |
|-----------------------|--------------------------------------------------------------------------------------------|-----------------------------|
| Barber, David | david.barber@traonline.com | (717) 829-3031 |
| Bruno, Peter | peter.bruno@traonline.com | 404-272-2545 |
| Carswell, Sean | sean.carswell@traonline.com | (215) 546-9110 |
| Crowther, Michael | michael.crowther@traonline.com | (215) 546-9110 |
| Ellis, Robert | robert.ellis@traonline.com | (215) 546-9110 |
| Erich, Stephen | stephen.erich@traonline.com | (215) 546-9110 |
| Falbus, Shikha | shikha.falbus@traonline.com | (215) 546-9110 |
| Ferraro, Anthony | anthony.ferraro@traonline.com | (215) 546-9110 |
| Frazier, Stephen | stephen.frazier@traonline.com | (215) 546-9110 |
| Gardella, Daniel | daniel.gardella@traonline.com | (215) 546-9110 |
| Hauber, Daniel | daniel.hauber@traonline.com | (215) 546-7110 |
| Hill, James | james.hill@traonline.com | (215) 546-9110 |
| Jackson, Bianca | bianca.jackson@traonline.com | (215) 546-9110 |
| Koemets, Oleg | oleg.koemets@traonline.com | (215) 546-9110 |
| Kogan, Robert | robert.kogan@traonline.com | (215) 546-9110 |
| Korach, Kenneth ✓ | kenneth.korach@traonline.com | (215) 546-9110 |
| Korach, Samuel | samuel.korach@traonline.com | (856) 296-9553 |
| Mannion, Jeff | jeffrey.mannion@traonline.com | (610) 724-8027 |
| Paxson, Patricia | patricia.paxson@traonline.com | (215) 546-9110 |
| Sorg-Taylor, Amelija | amelija.sorgtaylor@traonline.com | (215) 646-9131 (2156469131) |
| Tompkins, Gabriel | gabriel.tompkins@traonline.com | (215) 546-9110 |
| Wallgren, Christopher | christopher.wallgren@traonline.com | (212) 300-4267 |
| Weisgerber, John | john.weisgerber@traonline.com | (267) 908-8112 (2679088112) |
| Womack-Kalla, Dennis | dennis.womack-kalla@traonline.com | (215) 546-9110 |
| Young, James | james.young@traonline.com | (215) 546-9110 |

**United States Department of Transportation
Transportation Safety Institute Certificate**

This is to certify that

William J. Matthews

*Has successfully completed the requirements of, and is hereby awarded the
Federal Transit Administration and Transportation Safety Institute's*

**Transit Safety and Security Program Certificate
(Transit Rail Program)**



Given this 18th day of December, 2015



Andrew Rupp

Manager, Transit Safety & Security Division

Kei Woman

Director, Transportation Safety Institute

**United States Department of Transportation
Transportation Safety Institute Certificate**

This is to certify that

Joshu Shih

*Has successfully completed the requirements of, and is hereby awarded the
Federal Transit Administration and Transportation Safety Institute's*

**Transit Safety and Security Program Certificate
(Transit Rail Program)**



Earned on the 9th day of December 2016



Markus Rupp

Manager, Transit Safety & Security Division

Ken Norman

Director, Transportation Safety Institute

WORLD SAFETY ORGANIZATION

"In Consultative Status, Category II, with the United Nations Economic and Social Council"

"A non-profit, non-political, non-sectarian, multidisciplinary, multicultural,
international professional organization working in the public interest."



WSO World Management Center
106 W. Young Ave., Suite F
P.O. Box 518
Warrensburg, MO 64093
(660) 747-3132
(660) 747-2235
FAX: Worldsafes USA
(660) 747-2647
www.worldsafety.org

8 September 2016

Mr. William J. Matthews WSO-CSSD
Transportation Resource Assoc.
1608 Walnut Street Ste 1602
Philadelphia PA 19103

Dear Mr. Matthews:

Thank you for your renewal and continued support. Welcome once again to the elite group of highly motivated and skilled professionals who are striving to "Make Safety a Way of Life ... Worldwide."

A new membership and professional designation card is enclosed. Please destroy your old card and replace it with this new one. The enclosed stickers are for your certificates.

Should you have any questions or need further information or assistance, please contact our office at your convenience. You may also check the WSO website for announcements, information, and other helpful resources.

Thank you for partnering with the World Safety Organization in our efforts to build a better world through education and professionalism.

Keep safe,

Handwritten initials 'MS' in a circle.

Marsha Sites
Member Services Coordinator

Enclosures

"Making Safety a Way of Life...Worldwide"



WORLD SAFETY ORGANIZATION

William J. Matthews

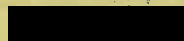
has met the requirements of membership

and is hereby designated

Affiliate Member



date June 11, 2012




Chief Executive Officer

WSO-CERTIFICATION REGISTRATION
2016-2017

Learn How to Make Agile Successful at Your Organization

Attend the PMI Organizational Agility Conference 2017 on 13 September.

PROFILE

Daniel Hauber



[Edit my profile](#)

Title: **Vice President**

Transportation Resource Associates,

Company: Inc.

Email: daniel.hauber@traonline.com

Member ID: **2780212**

Membership Since: **15 Aug 2017**

Membership

Renews: **August 2018**

Membership

Automatic Renewal: **Manage automatic renewal**

Volunteer Status: **Find an opportunity**

Chapter: **Find a chapter**

CERTIFICATION STATUS

PMP® #1681000

60
PDUs remaining to
renew

Status: **In good standing**

Earned: **23 Dec 2013**

Renewal: **23 Dec 2019**

860

Days until renewal

[View more on your Dashboard](#)

[CCRS Dashboard](#)

[Report PDUs](#)

[Exam Analysis](#)

[My Certification Info](#)

APPLICATION STATUS

You currently have no active applications.



Appendix C: Required Bid Forms

- RFP Acknowledgement Form
- Addendum Acknowledgement Form
- Bid Form #1 – Certification of Primary Participant Regarding Debarment, Suspension, and Other Responsibility Matters
- Bid Form #2 – Certification of Restrictions on Lobbying
- Purchasing Affidavit

REQUEST FOR PROPOSAL
WVDPT State Safety Oversight

By signing below, I certify that I have reviewed this Request for Proposal in its entirety; understand the requirements, terms and conditions, and other information contained herein; that I am submitting this proposal for review and consideration; that I am authorized by the bidder to execute this bid or any documents related thereto on bidder's behalf; that I am authorized to bind the bidder in a contractual relationship; and that, to the best of my knowledge, the bidder has properly registered with any State agency that may require registration.

TRANSPORTATION RESOURCE ASSOCIATES
(Company) INC.

DANIEL HAUBER, VP
(Representative Name, Title)

215 546 9110 / 215 546 9120
(Contact Phone/Fax Number)

8/17/17
(Date)

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: PTR180000001

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|----------------------------------------------------|------------------------------------------|
| <input checked="" type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

TRANSPORTATION RESOURCE ASSOC -
Company IAEE
INC.

Law Brunner

Authorized Signature

8/17/17

Date

NOTE: This addendum acknowledgment should be submitted with the bid to expedite document processing.

REQUEST FOR PROPOSAL

WVDPT State Safety Oversight

Bid Form #1

CERTIFICATION OF PRIMARY PARTICIPANT REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

The Primary Participant (applicant for an FTA grant or cooperative agreement, or potential contractor for a major third party contract),

TRANSPORTATION RESOURCE ASSOCIATES, INC. (COMPANY NAME) certifies to the best of its knowledge and belief, that it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
2. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (2) of this certification; and
4. Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

If the primary participant (applicant for an FTA grant, or cooperative agreement, or potential third party contractor) is unable to certify to any of the statements in this certification, the participant shall attach an explanation to this certification.)

THE PRIMARY PARTICIPANT (APPLICANT FOR AN FTA GRANT OR COOPERATIVE AGREEMENT OR POTENTIAL CONTRACTOR FOR A MAJOR THIRD PARTY CONTRACT),

[Signature], CERTIFIES OR AFFIRMS THE TRUTHFULNESS AND ACCURACY OF THE CONTENTS OF THE STATEMENTS SUBMITTED ON OR WITH THIS CERTIFICATION AND UNDERSTANDS THAT THE PROVISIONS OF 31 U.S.C. SECTIONS 3801 ET SEQ. ARE APPLICABLE THERETO.

DANIEL T. HAUBER, VICE PRESIDENT
Signature and Title of Authorized Official

REQUEST FOR PROPOSAL WVDPT SSO PTR17*5

Bid Form #2

CERTIFICATION OF RESTRICTIONS ON LOBBYING

The undersigned (Vendor, Contractor) certifies, to the best of his or her knowledge and belief, that:

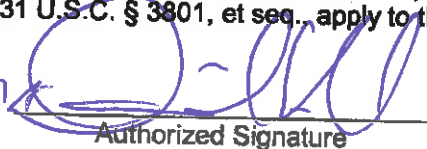
1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-L.L.L., "Disclosure Form to Report Lobbying," in accordance with its instructions. [as amended by "Government Wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, et seq.)]
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure. [Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure or failure.]

The Vendor, TRANSPORTATION RESOURCE ASSOCIATES, INC. certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Vendor understands and agrees that the provisions of 31 U.S.C. § 3801, et seq., apply to this certification and disclosure, if any.

AUG. 14, 2017

Date



Authorized Signature

DANIEL T. HAUBER, VICE PRESIDENT

Title

West Virginia Ethics Commission



Disclosure of Interested Parties to Contracts

Pursuant to W. Va. Code § 6D-1-2, a state agency may not enter into a contract, or a series of related contracts, that has/have an actual or estimated value of \$100,000 or more until the business entity submits to the contracting state agency a Disclosure of Interested Parties to the applicable contract. In addition, the business entity awarded a contract is obligated to submit a supplemental Disclosure of Interested Parties reflecting any new or differing interested parties to the contract within 30 days following the completion or termination of the applicable contract.

For purposes of complying with these requirements, the following definitions apply:

"Business entity" means any entity recognized by law through which business is conducted, including a sole proprietorship, partnership or corporation.

"Interested party" or "Interested parties" means:

- (1) A business entity performing work or service pursuant to, or in furtherance of, the applicable contract, including specifically sub-contractors;
- (2) the person(s) who have an ownership interest equal to or greater than 25% in the business entity performing work or service pursuant to, or in furtherance of, the applicable contract. (This subdivision does not apply to a publicly traded company); and
- (3) the person or business entity, if any, that served as a compensated broker or intermediary to actively facilitate the applicable contract or negotiated the terms of the applicable contract with the state agency. (This subdivision does not apply to persons or business entities performing legal services related to the negotiation or drafting of the applicable contract.)

"State agency" means a board, commission, office, department or other agency in the executive, judicial or legislative branch of state government, including publicly funded institutions of higher education: Provided, that for purposes of W. Va. Code § 6D-1-2, the West Virginia Investment Management Board shall not be deemed a state agency nor subject to the requirements of that provision.

The contracting business entity must complete this form and submit it to the contracting state agency prior to contract award and to complete another form within 30 days of contract completion or termination.

This form was created by the State of West Virginia Ethics Commission, 210 Brooks Street, Suite 300, Charleston, WV 25301-1804. Telephone: (304)558-0664; fax: (304)558-2169; e-mail: ethics@wv.gov; website: www.ethics.wv.gov.

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: TRANSPORTATION RESOURCE ASSOCIATES, INC.

Authorized Signature: [Signature] Date: AUGUST 14, 2017

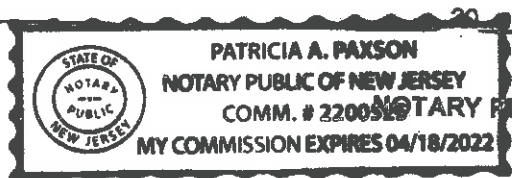
State of NEW JERSEY

County of ATLANTIC, to-wit:

Taken, subscribed, and sworn to before me this 14th day of AUGUST, 2017.

My Commission expires _____

AFFIX SEAL HERE



Pat Paxson