

AASHTOWare® Catalog

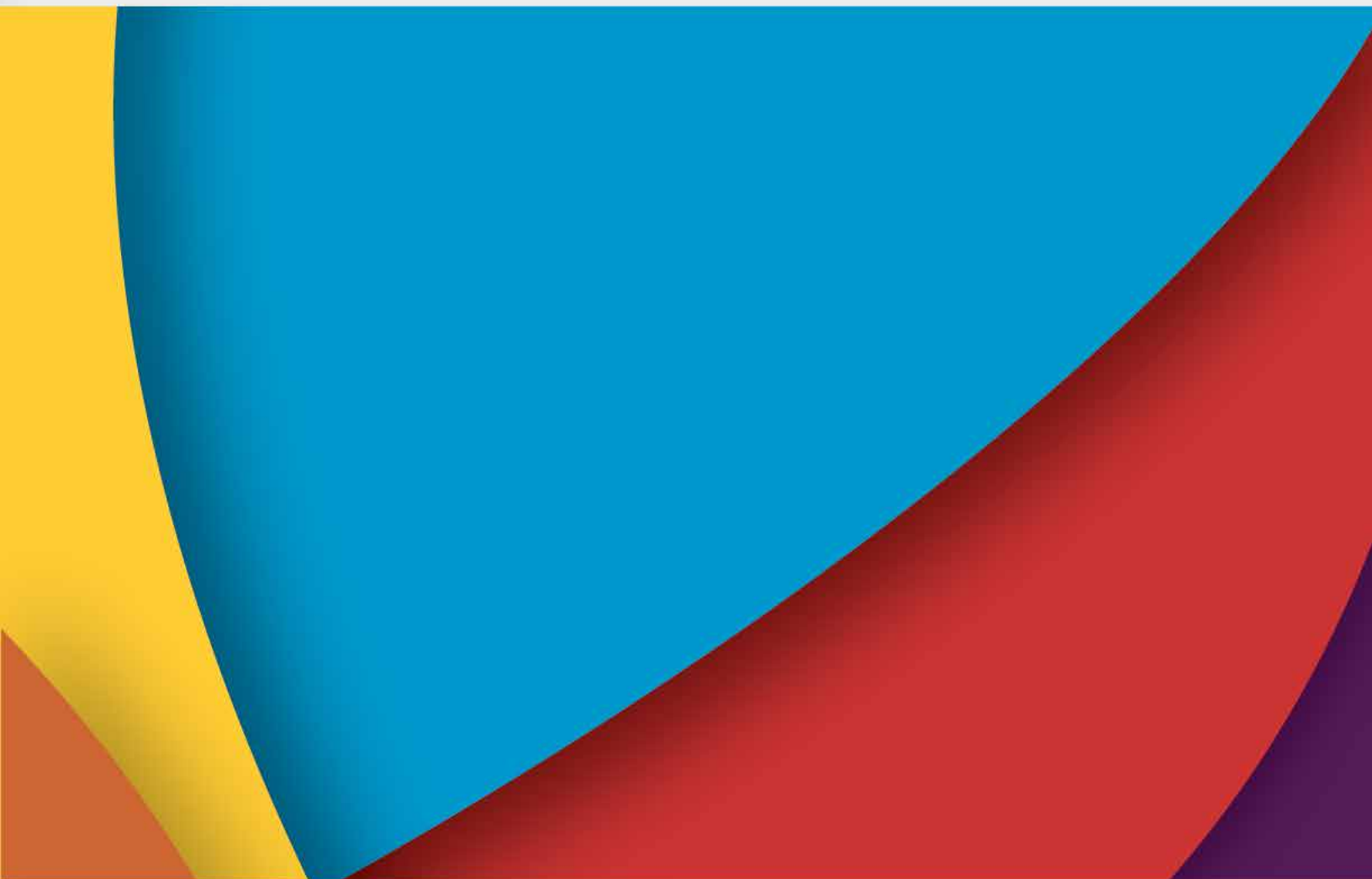


Creating the Next Generation of Technology Solutions

FY 2025

AASHTOWare® Catalog

FY 2025 | July 1, 2024–June 30, 2025



Creating the Next Generation of Technology Solutions

MAY 2025



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- AASHTOWare Project BAMS/DSS, AASHTOWare Project Bids,
- AASHTOWare Project Civil Rights & Labor,
- AASHTOWare Project Construction & Materials,
- AASHTOWare Project Cost Estimation,
- AASHTOWare Project Data Analytics,

- AASHTOWare Project Estimation,
- AASHTOWare Project Mobile Tester
- AASHTOWare Project Preconstruction,
- AASHTOWare Project SiteManager,
- AASHTOWare Project SiteXchange,
- AASHTOWare Project TRACER,
- AASHTOWare Bridge Design,
- AASHTOWare Bridge Management,
- AASHTOWare Bridge Rating,
- AASHTOWare Pavement ME Design,
- AASHTOWare Safety Analyst
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- The AASHTOWare Bridge logo,
- The AASHTOWare Bridge Management logo,
- The AASHTOWare Bridge Design & Rating logo,
- The AASHTOWare Project logo,
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- The AASHTOWare Project Bids logo,
- The AASHTOWare Project Civil Rights and Labor logo,
- The AASHTOWare Project Construction & Materials logo,
- The AASHTOWare Project Cost Estimation logo,

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OVERVIEW

Welcome to the AASHTOWare® products and services catalog for fiscal year 2025. This catalog provides information on existing and proposed products and services offered by AASHTO through its Cooperative Software Development Program. The catalog includes descriptions of each AASHTOWare product and service, hardware and software requirements, license fee schedule, and the availability of service units where applicable. In addition, the catalog provides instructions on ordering the AASHTOWare products and services.

How to Order AASHTOWare Products and Services

A brief description of the ordering and licensing procedures for both Member Department and Non-Member Agencies is described below. All products, services, and associated fees are provided on an annual fiscal year basis. The current AASHTO fiscal year period begins on July 1, 2024 and ends on June 30, 2025. Additional information can be obtained by visiting our website at <http://www.aashtoware.org> or by calling Angel Williams, AASHTOWare Senior Business Operations Manager, at (202) 624-5808.

Member Agencies

Orders for the AASHTOWare products are transmitted through our annual solicitation and commitment process. An annually distributed package includes two (2) forms that we request be completed and returned to indicate which software products or projects your department wishes to license or participate in during the current fiscal and license year. From your department's return of the AASHTOWare Products and Services Request Form and the Primary Designee Form, we will prepare the appropriate Supplemental License Agreements and invoices; all previously executed Master License Agreements remain in place. If your member department or agency has not yet executed a Master Software License Agreement with AASHTO, and you wish to participate in any of the current projects/products, simply complete and return the appropriate forms. A Master License Agreement and the current fiscal year Supplemental License Agreement with an appropriate invoice will be provided for execution.

The AASHTOWare Products and Services Request Form and the AASHTOWare Member Department/Agency Primary Designee Form are available online at <http://www.aashtoware.org>.

Non-Member Organizations

Orders may be transmitted through the annual AASHTO software solicitation and commitment process for non-member licensees of AASHTOWare products. Participation in the solicitation allows you to indicate which AASHTOWare products your firm plans to license during the current fiscal year period. From the completion and return of the Non-Member Software Request Form and the Non-Member Primary Designee Form, AASHTO will prepare the appropriate license agreements and invoice(s) for the current AASHTO license year and submit them to you for execution. If you wish to license any of the current product(s), simply complete and return the appropriate forms. A License Agreement for the current fiscal year along with an appropriate invoice will be provided for execution.

The AASHTOWare Non-Member Software Request Form and the Non-Member Primary Designee Form is available online at <http://www.aashtoware.org> or you may order online at <https://store.aashtoware.org>. Registration is required prior to ordering.

Important Administrative Policies and Procedures

When AASHTO issues a license for one or more of its computer software products, it is done on an organization or agency wide basis, and not to individuals. The following is intended to clarify and define what is included and meant by the use of the terms "organization or agency." An "organization" or "agency" may be:

- An AASHTO member department, or associate member agency;

- An Agency, Department or equivalent governmental organization that is an officially constituted or a designated unit of a sovereign Country's national government and with whom the U.S. Government does not prohibit issuing such licenses;
- An Agency, Department or equivalent governmental organization of a State, Province or similarly constituted unit of a sovereign Country and with whom the U.S. Government does not prohibit issuing such licenses;
- An Agency, Department or equivalent governmental organization of a county or similarly constituted unit of a State;
- A city;
- An educational institution; or
- A private sector firm, company or corporation.

AASHTO licenses computer software products to organizations or agencies under the terms and conditions of a Master License Agreement and a Supplemental License Agreement. AASHTO agreements include limitations on the use of the AASHTO software products, protections of AASHTO proprietary rights, limitations on warranties and other terms and conditions relevant to the use of the AASHTO software products by the licensee. In such instances where a licensee employs a contractor to perform certain work for the licensee using the AASHTO software products, the contractor must acknowledge the rights, limitations, terms and conditions set forth in the AASHTO Agreements and agree to be bound by the same. Contractor acknowledgement must be accomplished via the execution of the Contractor Agreement (Appendix A to the Master and Supplemental Agreements).

Provisions for Sunsetting an AASHTOWare Product

The administrative procedures and practice for sunsetting or discontinuing AASHTO support for outdated options, versions, releases and even entire products have been established. You will note that sunsetting has been and is being announced or confirmed for some aspect of a current AASHTOWare product(s). You should carefully read the sections of this document that describe specific products and refer to sunsetting activities.

No-cost AASHTOWare Product Evaluation

AASHTO member agencies may request to evaluate most AASHTOWare products for a period not to exceed 180 calendar days at no cost.

The software provided is not a demonstration copy but the actual executable full-function current software release of the product. Execution of an Evaluation License Agreement is required. This no-cost option is limited to one evaluation period per agency per product prior to licensing.

Non-member entities may request to evaluate most AASHTOWare products for a period of 30 calendar days with certain restrictions. Contact the AASHTO staff representative listed for the respective products for more information.

Introduction

AASHTOWare Project software is the complete, enterprise-wide software solution developed by AASHTO for managing an agency's construction program.

The web-based AASHTOWare Project software consists of the following modules designed to meet transportation agencies preconstruction and civil rights and labor management, construction and materials, and estimation needs.

- **AASHTOWare Project Estimation™**—Estimation System

AASHTOWare Project Estimation is a web-based cradle-to-grave estimation application. AASHTOWare Project Estimation provides a variety of estimation methodologies (bid-based, cost based, reference based, parametric estimation, ad hoc pricing, collection bases) to perform your estimates. AASHTOWare Project Estimation includes the assessment and assignment of risk contingency, life cycle analysis tools, expansion of existing import/export capabilities, inclusion of non-bid costs, non-construction costs and markups, and the ability to utilize snapshots in creation of an audit trail for the agency's estimates. The software provides the ability to run a quick analysis of bid-history pricing to utilize in what-if scenarios and planning discussions. AASHTOWare Project Estimation contains interactive graphical display for accessing the dynamic bid history profiles utilizing the AASHTOWare Project Data Analytics analysis. AASHTOWare Project Estimation requires licensing of AASHTOWare Project Preconstruction. For bid-based pricing, licensing of AASHTOWare Project Data Analytics is required.

- **AASHTOWare Project Preconstruction™**—Proposal, Estimates, Letting, and Award System

AASHTOWare Project Preconstruction allows the user to enter project data, prepare the PS&E estimate, create proposals, select a group of proposals for a bid letting and create various reports and includes features such as a unified database, consolidated security model, workflow/phase handling, innovative bidding a new reporting tool, improved handling of generic fields, and customization features. Licensing of AASHTOWare Project Data Analytics or AASHTOWare Project BAMS/DSS is required in order to utilize the AASHTOWare Project Preconstruction basic bid-based item price functionality.

- **AASHTOWare Project Bids™**—Electronic Bidding System

The AASHTOWare Project Bids software streamlines the bidding process, providing transportation agencies with control over the bid letting process while facilitating bid submittal for contractors. Bidders are able to receive proposal item schedules and to submit and withdraw item bids in a secure, electronic environment. The AASHTOWare Project Bids software provides security and encryption functionality for bids submitted over the Internet.

The AASHTOWare Project Bids software is designed to exchange data with the AASHTOWare Project Preconstruction software or similar systems. Item schedule data can be produced to assist with proposal creation and proposal information can be shared with many word processing, database, or spreadsheet systems.

The AASHTOWare Project Bids software supports proposals with alternate sections or alternate items, lump sum and fixed price items, and the electronic distribution of amendments. Bidders simply open the AASHTOWare Project Bids file provided by the letting agency and enter line item prices for each item.

The AASHTOWare Project Bids software calculates bid values as bidders work through the item list and alerts them if an item is accidentally omitted. The software facilitates import and export of item lists to allow for interaction with bid estimation systems commonly used by the contracting community.

The AASHTOWare Project Bids software uses a customizable configuration file to meet agency needs. The configuration file provides control over printed and displayed data and information gathering.

- **AASHTOWare Project Civil Rights & Labor™**—Civil Rights and Labor Management System

AASHTOWare Project Civil Rights & Labor receives and processes the data required to meet federal and state requirements for civil rights and labor compliance activities. AASHTOWare Project Civil Rights & Labor is a web-based product offering that allows the effective administration of an agency's external civil rights and labor compliance activities such as contractor payrolls and labor compliance, wage decisions, Disadvantaged Business Enterprise (DBE) certification, vendor data management, DBE commitments, On-the-Job Trainees (OJT) tracking and monitoring, subcontractor data and prompt pay tracking, Bidder/Quoter submittals, trucking types and tracking, interfaces with client/server, and contract compliance reviews. Functionality and security is also available to allow non-agency users (e.g. contractors and subcontractors) to access AASHTOWare Project Civil Rights & Labor to submit electronic payroll and subcontractor payment information. Non-agency users can also manage DBE commitments and Bidder/Quoter submittals. AASHTOWare Project Civil Rights & Labor requires licensing of AASHTOWare Project Preconstruction.

Two tools are also available to assist contractors and payroll software companies in creating Extensible Markup Language (XML) formatted payroll files for import into AASHTOWare Project Civil Rights & Labor software: the AASHTOWare Project Payroll Spreadsheet and Conversion Utility and the AASHTOWare Project Payroll XML Developer's Resource Kit.

Field Interviewer allows your Civil Rights and/or field personnel to collect field interview data, including summary findings, employees interviewed, and wage rates paid and job classifications worked for each employee, all with just a few clicks on a mobile device.

- **AASHTOWare Project Construction & Materials™**—Construction Management, Materials Management and Laboratory Information Management System

AASHTOWare Project Construction & Materials is a web-based construction and materials management software application. AASHTOWare Project Construction & Materials covers the construction and materials management process, including laboratory information management functionality. It is a powerful application spanning all levels of construction and materials enabling personnel to progress a contract and its supporting documentation from award through finalization.

AASHTOWare Project Construction & Materials allows an organization to manage all aspects of a construction project through Daily Work Reports, diaries, stormwater compliance inspections, contract change orders, force accounts, contractor evaluations, design evaluations, plan discrepancies, meeting records, document submission and review, stockpiles, and contractor payments. AASHTOWare Project Construction & Materials provides the ability to track materials, approve materials for source and facilities, qualifications (for testers, samplers, calibrators, welders, and laboratories), track test equipment and calibrate equipment, withhold payment for insufficient materials, approve mix designs for their design and use on a construction contract.

AASHTOWare Project Construction & Materials features a laboratory information management component, which allows an organization the ability to manage and track progress through each critical step of the material sample lifecycle.

Agencies that are in production with and paying for AASHTOWare Project Construction & Materials but are still using either AASHTOWare Project SiteManager or AASHTOWare Project FieldManager to close out old projects, should select the corresponding Legacy License as part of your license renewal.

AASHTOWare Project Mobile Tester allows users to electronically capture samples and test results directly in the field on a mobile device.

- **AASHTOWare Project Data Analytics™**—Data Analytics System

The first licensable component of the AASHTOWare Project Data Analytics software became available with the AASHTOWare Project 4.0 software released in September 2017. AASHTOWare Project Data Analytics in the web-based AASHTOWare Project software currently provides graphical, bid-based price analysis and item price estimates utilizing historical bid data from the web-based AASHTOWare Project unified database. The analytical methodology,

originating from AASHTOWare Project BAMS/DSS, includes expanded functionality available only in the web-based version of AASHTOWare Project.

All agencies with a paid license of AASHTOWare Project BAMS/DSS will be permitted access the full AASHTOWare Project Data Analytics Software-as-a-Service (SaaS) and web-based functionality at no additional cost.

The legacy AASHTOWare Project software consists of the following modules designed to meet most transportation agency preconstruction and construction management needs.

- AASHTOWare Project Construction Administration™—Construction Administration System (to be sunset June 30, 2025)
- AASHTOWare Project BAMS/DSS™—Data Warehouse and Decision Support System (to be sunset June 30, 2027)
- AASHTOWare Project Estimator™—Cost Estimation Workstation
- AASHTOWare Project SiteManager™—Construction Management System (to be sunset June 30, 2027)
- AASHTOWare Project SiteXchange™—Contractor Data Transfer (to be sunset June 30, 2027)
- AASHTOWare Project FieldManager™—Construction Management Suite for Project Engineers and Inspectors
- AASHTOWare Project FieldNet™—Electronic Data Transfer System for FieldManager

Each AASHTOWare Project module addresses the needs of the transportation agency during a particular phase in the construction life cycle, beginning with project definition, through the archival of final contract information, and beyond, by providing access to data for use in decision-making and reporting. A Site License, which includes most of the modules, is available for an annual fee. The modules can also be licensed individually so that the licensee can choose only needed modules.

Generic releases of the AASHTOWare Project modules are available to provide operational support and appropriate analysis reports in easy-to-understand formats. The generic approach provides an efficient and flexible computer-operating environment and user interface, with integrated tools for adding new or modified reports, extending the database with agency specific data, and conducting ad hoc analyses. The current releases offer significant capability to tailor AASHTOWare Project to each agency’s individual needs, using system installation options, report templates, and generic fields in the database.

The web-based AASHTOWare Project modules of AASHTOWare Project Estimation, AASHTOWare Project Preconstruction, AASHTOWare Project Civil Rights & Labor, AASHTOWare Project Construction & Materials, and AASHTOWare Project Data Analytics are available in a web-based services architecture based on the Microsoft .NET platform. The modules support Microsoft’s Active Directory (AD) and Lightweight Directory Access Protocol (LDAP). Information on tested and supported platforms is available at <https://www.aashtoware-project.org/sys-arch>.

Current Annual Fees and Licensing Options

Fees vary depending upon the modules licensed. All of the modules are licensed on an annual license fee basis; however, some of the modules are also licensed annually on a per user basis. Costs associated with installation, implementation, supplemental support and training are the licensees’ responsibility, and may be negotiated directly with the appropriate AASHTO contractor. Service units (described below) may be purchased from AASHTO to cover installation, implementation, supplemental support, and training costs associated with AASHTOWare Project.

Annual License Fees by Module

Modules	Annual License Fee ³	Other Suggested Modules
BAMS/DSS ^{1,7,8}	\$104,000	
Data Analytics ^{1,8,9}	\$92,000	Preconstruction, Estimation

Modules	Annual License Fee ³	Other Suggested Modules
Construction Administration ⁷	\$80,000	Preconstruction and BAMS/DSS or Data Analytics
Construction & Materials/Mobile Tester ⁵	\$294,000	
Estimation ^{4,6}	\$64,000	Preconstruction, Data Analytics
SiteManager ^{*2,7}	\$310,000	
SiteXchange ⁷	\$28,000	SiteManager
Preconstruction ⁴	\$64,000	Data Analytics
Civil Rights & Labor/Field Interviewer ⁴	\$69,000	Preconstruction
Bids	\$28,000	
SiteManager Legacy License ¹⁰	\$0	Construction & Materials
FieldManager Legacy License ¹⁰	\$0	Construction & Materials
Construction Administration Legacy License ¹⁰	\$0	Construction & Materials

Note:

1. AASHTOWare Project BAMS/DSS and AASHTOWare Project Data Analytics modules are available to AASHTO Members and Associate Members only. There is no additional fee for the BAMS/DSS Workstation option.
2. The SiteManager licenses are intended for use by all client implementations configured by the licensee to communicate to the corporate database server(s) under the direct technical and administrative control of the licensee.
3. If any individual module is to be initially installed during the license year, the module fee may be prorated for the remaining months in that licensing year only. (All subsequent licensing of previously installed modules is for the full year and will not be prorated for a partial year.)
4. Due to the nature of the software, Civil Rights & Labor and Estimation are only licensed with Preconstruction.
5. If requested, Construction & Materials may be obtained at no additional cost with the licensing of SiteManager or an extended license of FieldManager.
6. If requested, Estimation may be obtained at no additional costs with an existing paid license of Estimator, for a maximum of 2 years. This option is intended to help agencies implement Estimation at no additional cost. Once in production with Estimation, an agency must begin paying the associated license fee.
7. These modules are no longer available to new licensees.
8. If requested, Data Analytics may be obtained at no additional cost with the licensing of BAMS/DSS.
9. If requested, BAMS/DSS can be licensed for \$12,000 with a paid AASHTOWare Project Bundle license.
10. The legacy licenses are intended for agencies who are in production with and paying for Construction & Materials, but still want access to the associated legacy system to close out old projects.

Bundled Module and Hosting License Options

Bundled module and hosting license options are intended for member agencies who want to combine module licensing and hosting services licensing into a single license.

Description	Annual License Fee
Bundled Option 1 —License to the following: <ul style="list-style-type: none"> • Bids • Civil Rights & Labor • Field Interviewer • Data Analytics • Estimation • Preconstruction • Hosting Services (see AASHTOWare Project Hosting Services for more information) 	\$533,000

Description	Annual License Fee
Bundled Option 2 —License to the following: <ul style="list-style-type: none"> • Bids • Construction & Materials • Mobile Tester • Data Analytics • Preconstruction • Hosting Services (see AASHTOWare Project Hosting Services for more information) 	\$730,000
Bundled Option 3 —License to the following: <ul style="list-style-type: none"> • Bids • Civil Rights & Labor • Field Interviewer • Construction & Materials • Mobile Tester • Data Analytics • Estimation • Preconstruction • Hosting Services (see AASHTOWare Project Hosting Services for more information) 	\$862,000

Annual License Fees for Modules Based on Copy Quantity AASHTOWare Project Estimator

AASHTOWare Project Estimator has the following fee structure:

Description	Annual License Fee	
AASHTOWare Project Estimator	1–15 Copies (each copy)	\$3,000
	16–20 Copies	\$32,000
	21–30 Copies	\$43,000
	31–40 Copies	\$53,000
	41–50 Copies	\$59,000
	51–60 Copies	\$65,000
	Site License*	\$72,000

Note: The above fees are annual fees. The total amount varies depending upon the number of workstations licensed. If AASHTOWare Project Estimator is installed on additional workstations during the license year, the annual fee for the additional workstations will be prorated for the remaining months of the license year (July 1–June 30). This proration applies only to the initial installation of AASHTOWare Project Estimator. These license fees include support and maintenance by Infotech consistent with AASHTOWare products.

* Agencies holding a site license for AASHTOWare Project Estimator may, with no additional license fee, extend their site license to their local governments for projects in which federal money is involved and for which the agency has oversight responsibilities. This exception does not apply to consultants who are doing design work for the agency or to local governments that are doing their own non-federal projects. Consultants (and local agencies doing non-federal projects) must purchase their own AASHTOWare Project Estimator license at the special reduced license fee available on the Infotech, Inc. website: www.infotechfl.com.

AASHTOWare Project FieldManager

Pricing for AASHTOWare Project FieldManager is calculated on either a “per copy” or “per site” license basis. AASHTOWare Project FieldManager has the following fee structure:

Description		Annual License Fee
AASHTOWare Project FieldManager suite	Each Installed Copy	\$5,000
(FieldManager® and FieldBuilder™ Components Only)	Each installed copy of FieldBook	\$2,000
Site License (All FieldManager Components)	Site License (1–15 users)	\$25,000
	Site License (16–30 users)	\$42,000
	Site License (31–50 users)	\$62,000
	Site License (51–300 users)	\$125,000
	Site License (301–800 users)	\$185,000
	Site License (more than 800 users)	\$247,000

Note: These AASHTOWare Project FieldManager Licenses are intended to cover only actual employees of the licensing agency. Consultants and other agencies (i.e., cities and counties) doing work for a licensing agency are not covered under this type of license agreement. Agencies wishing to cover (in addition to their own employees) consultants working directly under their control or local governments administering state-let, state-paid contracts should use the AASHTOWare Project FieldManager Extended License option detailed below (instead of this option).

AASHTOWare Project FieldManager Extended License

The AASHTOWare Project FieldManager Extended License is intended for member agencies wishing to cover not only their own employees, but also consultants working directly under their control (for example, as field inspectors) and/or local governments administering state-let, state-paid contracts under their license agreement. Agencies acquiring an Extended License may provide copies of the software to their consultant workforce and local governments, but are responsible for the following:

- Distributing copies of the AASHTOWare Project FieldManager software, including copying and distributing user documentation, as needed, to consultants and local agencies;
- Maintaining a list of consultants and local agencies to which the agency distributes the AASHTOWare Project FieldManager software (including any of its components);
- Acting as the single point of contact for all consultant and local agency software support inquiries. Inquiries that are clearly beyond the normal technical expertise of the agency may be forwarded by the agency to Infotech for resolution back to the agency. In accordance with standard AASHTO policy, the agency will identify a maximum of four people authorized to contact Infotech with support requests;
- Ensuring that FieldBuilder is not provided to anyone outside the state agency. Since the intent of this license is to allow performance of work on state-let, state-paid contracts only, consultants and local governments wishing to use AASHTOWare Project FieldManager (or any of its components) for accomplishing work on their own projects must purchase their own, separate licenses to do this; and
- Recovering all copies of the AASHTOWare Project FieldManager software and documentation from all consultants and local agencies whenever appropriate: for example, upon termination of service and/or consulting agreement under which the distribution of the software was initiated.

Member agencies have two options available to them to provide access to the AASHTOWare Project FieldManager software to their consultant work force (project managers, field inspectors, etc.) and/or their local government agencies administering state-let, state-paid contracts:

- Purchase this Extended License for the appropriate number of anticipated total users (state employees, consultant work force and local government employees); or,

- Continue to require their consultants and Locals to purchase their own copies of the software directly from Infotech. In the latter case, technical and administrative support will be available from Infotech.

The AASHTOWare Project FieldManager Extended License has the following fee structure:

Description	Annual License Fee	
FieldManager suite (All FieldManager Components Except FieldBuilder)	Extended License (1–15 users)	\$39,000
	Extended License (16–30 users)	\$58,000
	Extended License (31–50 users)	\$88,000
	Extended License (51–300 users)	\$162,000
	Extended License (301–800 users)	\$238,000
	Extended License (more than 800 users)	\$310,000

AASHTOWare Project FieldNet

AASHTOWare Project FieldNet has the following fee structure:

Description	Annual License Fee	
FieldNet	Site License (Up to 100 total users)	\$48,000
	Site License (101–500 users)	\$96,000
	Site License (501–600 users)	\$107,000
	Site License (601–750 users)	\$124,000
	Site License (751–900 users)	\$137,000
	Site License (901–1000 users)	\$143,000
	Site License (1,001 or more users)	\$192,000

Evaluation & Implementation License Options

First-time licensees of a production release module may elect a no-cost, 180-day evaluation license.

The one-year implementation license is good for 12 months from time of initial license at a license fee equal to the current license fees listed above. The one-year implementation license option for AASHTOWare Project Preconstruction, AASHTOWare Project Civil Rights & Labor / Field Interviewer, AASHTOWare Project Construction & Materials / Mobile Tester or AASHTOWare Project Estimation includes two Evaluation License Service Units of support (\$27,000 value) at no additional cost.

Evaluation License Service Units (ELSU) are valid only for the one-year duration of the associated evaluation license. The licensee may use these ELSUs at its discretion to assist with installation, implementation and training activities during the evaluation period. Unused ELSUs units expire at the end of the one-year license period. AASHTO will no longer offer an evaluation license for AASHTOWare Project Construction Administration or AASHTOWare Project SiteManager. To continue licensing beyond the initial 12-month evaluation period, licensees would then pay a prorated annual license fee based on the number of months remaining in the current fiscal year in order to return to the normal AASHTO fiscal/licensing year of July 1–June 30.

AASHTOWare Project Hosting Services

AASHTO is offering agencies the ability to purchase hosting services from AASHTO for AASHTOWare Project web-based components only. AASHTO has contracted directly with its AASHTOWare Project contractor, Infotech, to ensure that

Infotech's hosting services meet or exceed security and industry standards. Hosting services that include client/server components can continue to be provided separately by Infotech via AASHTOWare Project Service Units.

Definitions

Hosted Environment: Refers to the solution as a whole. The hosted environment includes the infrastructure, services, backups, monitoring, security, processes, and controls used to provide a secure and robust solution. Standard hosted environments are completely isolated and dedicated to a single agency.

Hosted Instance: Refers to a segment within the hosted environment identified by its functional purpose. Typical hosted instances are dev/test, training, reporting, and production. A hosted environment will contain one or more hosted instances. Each hosted instance is logically isolated from one another to varying degrees. For example, a dev/test instance and a training instance may share the same virtual servers, while a production instance never shares a virtual server with any other instance.

Ordering Process

Prior to selecting the hosting services option, an agency should review the hosting documents located in the Hosting Services section of the Status and Planning page on <https://www.aashtowareproject.org/>. The agency should verify with its governing body that the hosting agreements are acceptable. If there are any discrepancies then the agency should work with Infotech to resolve these discrepancies.

After the agency has completed its review of agreements the agency will select the appropriate hosting options on the AASHTO order form. After AASHTO reviews and approves the order AASHTO will notify Infotech via the End User Designee Report of the order. At this point, Infotech will contact the agency to initiate the fulfillment of the order.

The first year of Hosting Services includes a one month startup required to build the environment and establish the VPN connection with the agency. The Agency will provide a suitable IP address range that will be used during the initial hosting setup. This is followed by a five-month testing period of the Dev/Test instance. Once testing has completed, the Production instance will be created and be ready for immediate use.

If the Agency desires any optional services, the Agency will be required to set up a Supplemental Activities agreement using AASHTO Service Units to accommodate Agency specific requests that are outside the Hosting Services agreement.

Hosting Services Provided

AASHTOWare Project Base Configuration

- The base configuration accommodates AASHTOWare Project Preconstruction, AASHTOWare Project Estimation, AASHTOWare Project CRL, and AASHTOWare Project Data Analytics.
- The base configuration includes the following instances of AASHTOWare Project:
 - Production Instance (1 Production site)
 - Dev/Test Instance (1 Dev site and 1 Test site)
 - Additional AASHTOWare Project installation for training purposes using the Dev/Test servers as desired.
 - Additional AASHTOWare Project installation for implementation purposes using the Dev/Test servers as desired.

AASHTOWare Project Base Configuration with Construction and Materials

- Adds additional resources or revised architecture as necessary to the production instance to provide a performant solution given the additional user load and application complexity associated with the construction and materials module.

Report Instance (with daily data refresh) Add-On Option

- Adds one (1) additional AASHTOWare Project installation for reporting purposes using an additional AASHTOWare Project App/UI server and database. Data is programmatically refreshed with data from production daily. This configuration is suggested for agencies who have heavy reporting requirements.

For more information regarding hosting of client/server components, please review the hosting documents located in the Hosting Services section of the Status and Planning page on <https://www.aashtowareproject.org/> or contact your Infotech account manager.

Note: In the 2024–2025 fiscal year, the licensing structure of AASHTOWare Project Hosting services may be updated in order to combine the module license(s) and hosting license into one fee. End User Designee notices will communicate any changes.

Hosting Fees

Description		Annual License Fee
Base Configuration	<p>The base configuration accommodates AASHTOWare Project Preconstruction, AASHTOWare Project Estimation, AASHTOWare Project CRL, and AASHTOWare Project Data Analytics.</p> <p>Instances included:</p> <ul style="list-style-type: none"> • Production Instance (1 Production site) • Dev/Test Instance (1 Dev site and 1 Test site) • Additional AASHTOWare Project installation for training purposes using the Dev/Test servers as desired. • Additional AASHTOWare Project installation for implementation purposes using the Dev/Test servers as desired. 	\$224,000
Base Configuration with Construction and Materials	<p>Adds additional resources or revised architecture as necessary to the production instance to provide a performant solution given the additional user load and application complexity associated with the construction and materials module.</p>	\$261,000
Add-on Options	<p>Reporting Instance: Adds one additional AASHTOWare Project installation for reporting purposes using an additional AASHTOWare Project App/UI server and database. Data is programmatically refreshed with data from production daily. This configuration is suggested for agencies who have heavy reporting requirements.</p>	\$38,000

Power BI Dashboard Hosting Services

The Power BI Dashboard Hosting Service is offered to assist agencies with implementing Power BI dashboard reports in the AASHTOWare Project software. Agencies can use the Power BI Dashboard Hosting Service with on-premise installations of AASHTOWare Project software or with hosting services. It is important to note that agencies are not required to purchase or use this new service in order to embed Power BI dashboard reports in the AASHTOWare Project software. This service is offered simply to ease the burden some agencies might have in utilizing this exciting new feature.

The Power BI Dashboard Hosting Service includes the following

- The necessary Power BI services within Microsoft Azure and licenses
- Dashboard report content administrative access for up to 5 agency administrators
- 3 separate workspaces for Dev, Test, and Production
- Loading and updating the sample dashboard reports as applicable

The service is offered in two tiers based on anticipated load, such as the frequency of the dashboard reports being rendered, complexity of dashboard reports, how interactive the dashboard reports are, and other factors. The only difference between the two tiers is the node type providing the Power BI Embedded service. If your agency is just getting started with embedding Power BI dashboard reports in the AASHTOWare Project software it is recommended that you select Tier 1 to begin with.

Description	Annual License Fee
Tier 1 (1 virtual core/3 GB RAM)	\$37,000
Tier 2 (2 virtual cores/5 GB RAM)	\$50,000

AASHTOWare Project Licensing Arrangements

AASHTOWare Project Estimator, AASHTOWare Project FieldNet, and the AASHTOWare Project FieldManager Suite

AASHTOWare Project Estimator and AASHTOWare Project FieldNet are proprietary software products of Info Tech, Inc., DBA Infotech, Gainesville, Florida. The AASHTOWare Project FieldManager suite (including AASHTOWare Project FieldManager, AASHTOWare Project FieldBook and AASHTOWare Project FieldBuilder) is a proprietary software product jointly owned by Info Tech, Inc., DBA Infotech and the State of Michigan. AASHTO has been granted access to sublicense these Infotech products to its licensees.

Local Government

The pricing of licenses to local government entities is the same as for AASHTO members. Note: The AASHTOWare Project BAMS/DSS module is available only to AASHTO Members and Associate Members. Local government transportation agencies must license the AASHTOWare Project FieldManager suite and AASHTOWare Project FieldNet through Infotech, and all other AASHTOWare Project modules through AASHTO. Info Tech, Inc. can be reached at:

Info Tech, Inc., DBA Infotech
2970 SW 50th Terrace
Gainesville, FL 32608
Phone: (352) 381-4400
Fax: (352) 381-4444
<https://cart.infotechinc.com/>
Attn: Gina Bright-Carlisle

Use at Multiple Installations

An agency obtaining one license for AASHTOWare Project BAMS/DSS, AASHTOWare Project Cost Estimation, AASHTOWare Project Construction Administration, AASHTOWare Project SiteManager, AASHTOWare Project Estimation, AASHTOWare Project Bids, AASHTOWare Project Preconstruction, AASHTOWare Project Civil Rights & Labor, AASHTOWare Project Construction & Materials, or AASHTOWare Project Data Analytics may install servers at multiple locations and run the applications completely independent of other regions/districts of the agency. However, AASHTO will send software releases to only one location, and all support service requests from the multiple unrelated locations/districts must be made through one agency location.

Infotech Mobile Inspector®

Mobile Inspector is a mobile extension of AASHTOWare Project Construction & Materials that allows inspectors to easily capture on-site daily report information directly from a phone or tablet. Our intuitive application offers offline capability so inspectors can record their observations in real-time from any jobsite. Mobile Inspector seamlessly syncs your daily reports back to AASHTOWare Project using a secure connection. Included in the application is the Mobile Inspector Measure Service, connecting site inspectors to third-party geospatial platforms. These powerful integrations return precise item measurements, stationing information, and location data to your daily report.

Licensing

Description		Annual License Fee
Mobile Inspector	Unlimited Use	\$47,250

Contact Information

Additional information about Mobile hosting can be found at <https://www.infotechinc.com/mobile-inspector/> or by contacting:

Info Tech, Inc., DBA Infotech
2970 SW 50th Terrace
Gainesville, FL 32608
Phone: (352) 381-4400
Fax: (352) 381-4444
<https://cart.infotechinc.com/>
Attn: Gina Bright-Carlisle

ForneyVault®

ForneyVault is a machine-integrated, cloud-based construction materials testing platform. With ForneyVault, data flows seamlessly throughout the entire CMT testing process, reducing the risk of errors, increasing compliance, and driving more positive outcomes for labs and other stakeholders in the process.

This application provides value and convenience to entities using both the ForneyVault application and AASHTOWare Project.

ForneyVault is a proprietary software product owned by Forney LP, of Zelienople, Pennsylvania. AASHTO and its licensees have been granted a license to use ForneyVault through an agreement with Forney LP.

Compatibility with AASHTOWare Project

ForneyVault and AASHTOWare Project have achieved an interface that allows sample information and testing data to automatically flow between the two systems. Using this interface lets users eliminate their technician's manual data collection at the testing machine and they will no longer have to enter the associated data in multiple systems manually.

AASHTO Member Departments and Associate Members wishing to use the interface must license it from AASHTO and abide by the terms and conditions granted by this license agreement, which is incorporated by reference into the AASHTO licensing agreement(s). A copy of the AASHTO–Forney agreement will be provided to any requesting member or associate member agency.

Materials Testing Machine Compatibility & Integration

ForneyVault can be used with a Forney VFD Series automatic testing machine or any manual machine fitted with a ForneyLink touchscreen interface.

Existing testing machines from other manufacturers are no problem; ForneyVault can be enabled by the installation of a ForneyLink or Forney Retropak.

You can explore equipment integration options at <https://forneyvault.com/hardware-integrations/> to determine your needs.

For additional questions on testing machine compatibility and integration, please contact: info@forneyvault.com.

Licensing

This fixed-price option for the ForneyVault software can be purchased for \$7,500 for a period of one year and allows an unlimited number of tests per month, unlimited data storage, and unlimited users.

Description		Annual License Fee
ForneyVault	Unlimited Use	\$7,500

Contact Information

Additional information about ForneyVault can be found at <https://forneyvault.com/> or by contacting:

Joel Simpson
SVP Sales & Marketing
Forney LP
Direct: 724-551-1118
Email: jsimpson@forneyonline.com

EDOT Portal™—Powered by HaulHub Technologies

HaulHub's Agency Portal journey began with e-Ticketing, which laid the foundation to evolve into the EDOT Platform that has been released, and currently in use with, nearly 40 state transportation agencies. Building upon the nationwide success of e-Ticketing, EDOT expands the portal capabilities to encompass a wide range of tools to meet the agency's transforming needs. EDOT streamlines the e-Construction process by securely aggregating real-time ticketing data from any asphalt, ready-mix, or aggregate producer in a state, regardless of the ticketing solutions in place at the plant or job site. Entities using EDOT and AASHTOWare Project benefit from the bi-directional integration through the AASHTO OpenAPI.

The EDOT Platform is a proprietary software product owned by HaulHub, Inc., of Boston, Massachusetts. AASHTO and its licensees have been granted a license to use EDOT™ through an agreement with HaulHub, Inc.

Compatibility with AASHTOWare Project

EDOT and AASHTOWare Project are working to achieve a bi-directional interface utilizing AASHTO OpenAPI that will enable validated construction materials information from hot mix asphalt, aggregate, and concrete producers to automatically flow between the two systems. This interface will eliminate the need for inspectors to collect physical tickets on job sites and prevent inspection staff and back-office personnel from manually entering the associated data into multiple systems. AASHTO Member Departments and Associate Members wishing to use the interface must license it from AASHTO and abide by the terms and conditions granted by this license agreement, which is incorporated by reference into the AASHTO licensing agreement(s).

Licensing

This fixed-price option for EDOT Portal™ software can be purchased for \$12,500 for a period of one year, allowing an unlimited number of users, connections to private-sector construction materials plants, unlimited data storage, and bi-directional integration with AASHTOWare.

This license serves as the gateway to the EDOT Platform, incorporating all features of the Agency Portal offered in prior years. Please note, access to additional EDOT Agency modules requires separate licensing agreements.

Description	Annual License Fee
EDOT Portal Access Unlimited Use	\$12,500

Contact Information

For additional information about EDOT Portal Access, please visit <https://www.e-dot.com/customers/agencies> or contact:

Brandon Hundley
VP, Strategic Partnerships
HaulHub, Inc.
Direct: 785.633.8923
Email: Brandon.Hundley@haulhub.com

Service Units

For the period from July 1, 2024 through June 30, 2025, AASHTO has established an arrangement with its AASHTOWare Project contractor, Info Tech, Inc., DBA Infotech, to offer the opportunity for agencies to acquire special fixed-fee increments or units of contractor-provided service for consultation and support to assist an agency in implementing the AASHTOWare Project modules. During this period, an agency may commit to one or more units of service. The actual number of hours the contractor will expend for one unit may vary depending on the AASHTO billing level of the contractor staff involved and the location where the service is being provided. The number of Service Units remaining at the conclusion of a fiscal year will be carried forward into the next fiscal year, but could result in a difference in work accomplished as the AASHTO billing level is based on the year during which the work is performed.

Service Unit Work Plan Development

Service Unit Contractor (Infotech) is an independent contractor and solely responsible for all aspects of the performance, delivery, quality, and terms and conditions of service they provide to agencies.

AASHTO SHALL NOT BE RESPONSIBLE AND DISCLAIMS ANY AND ALL LIABILITY FOR ANY DAMAGE OR LOSS WHATSOEVER, INCLUDING PERSONAL INJURY, DAMAGE TO PROPERTY, OR LOSS OF BUSINESS OPERATIONS, INFORMATION OR DATA, ARISING OUT OF OR RELATING TO ANY ACT OR OMISSION OF SERVICE UNIT CONTRACTORS, THEIR EMPLOYEES, AGENTS, AND SUBCONTRACTORS.

It is highly recommended that each agency reviews its service needs with the appropriate AASHTOWare Project contractor, develop a firm estimate of the number of units required and establish work plans and other terms and conditions of service, including the schedule for delivery, prior to submitting their commitment. Further, the AASHTOWare Project Task Force reserves the right to review work plans for Service Unit work to ensure conformance with the guidelines for their use.

This service is not a prerequisite to license AASHTOWare Project software, nor does it affect in any way the normal support, maintenance, and enhancement services provided under the AASHTO license agreement and normal fee structure for AASHTOWare Project. Choosing this special offering is strictly the prerogative of an agency. The intent of Service

Units is to offer the opportunity for an agency to acquire special fixed-fee increments or units of contractor-provided service for consultation and support. AASHTO shall serve as facilitator only by accepting the commitment for such contractor-provided services, invoice and receive payment on behalf of the agency and forward the order and payment to the contractor for the appropriate number of units of services ordered.

Further, AASHTO assumes no responsibility or liability for any obligation of the Service Unit Contractor, including scheduling or delivery of such units of service. It shall remain the responsibility of the subscribing agency to schedule their individual unit(s) of service and establish any other terms and conditions directly with the contractor.

Service Unit Work Options

These services provide for consultation and support to assist the agency in the implementation of the AASHTOWare Project products and can include the following:

- Planning and conducting training events;
- Implementation planning;
- Technical assessment/technical planning;
- Application installation and configuration;
- Data mapping of current agency systems data to AASHTOWare Project (e.g., financial, pre-construction, materials management);
- Configuring of generic field windows;
- Configuring of custom templates/agency views (e.g., agency specific material test methods);
- Hosted Services;
- Interface development (e.g., from agency specific pre-construction systems and to agency specific financial management systems); and
- Conversion development to take data from existing agency systems and load into AASHTOWare Project (e.g., materials management data).
- Supplemental Support (coverage for products beyond Reduced Support Call Ticket time limit or No Support, application installation/configuration, configuration agency views and custom reports)
 - For more details see Services in Support of AASHTOWare Project by logging into aashtowareproject.org and navigating to Modules > AASHTOWare Project Services > Data Services > AASHTOWare Project Services Detail.

In general, Service Units should not be used for work involving major new software development by member agencies. Service Units may be converted to provide additional enhancement funding under the guidance of the Task Force. To ensure that ownership issues are resolved, significant development work related to AASHTOWare products and enhancement requests utilizing service units should be reviewed by the Task Force prior to the work being performed. The use of Service Units to perform modifications that change AASHTO product source code must be reviewed and approved by the Task Force. Service units may not be used to provide reimbursement for travel expenses by agency personnel.

Fee for Service Units

Service Units can be ordered in unit increments of \$13,500 that cannot be prorated and shall be paid upon receipt of the invoice. This fee includes the AASHTO administrative costs. Each service unit provides \$12,200 in contractor services. For enhancement work requiring multiple service units, it may be better to consider the mechanism described in the Additional Funding for Development/Enhancement Items section.

Additional Funding for Development/Enhancement Items

The AASHTOWare Project Task Force recognizes that some member agencies might desire certain additional development or may desire to accelerate development of an AASHTOWare Project optional component(s), and may be in a position to fund such development. In fact, the practice of individual and/or groups of member agencies funding specific development/enhancement work through AASHTO's contracts with its software service providers has long been an acceptable means of accomplishing such work.

Note: Agencies may transfer Service Units to fund additional enhancement items.

Process for Funding Additional Enhancements

- Any agency or group of agencies that desire to fund enhancement work to one or more AASHTOWare Project modules that will not be addressed in our current work plan(s) should follow the process outlined on aashtowareproject.org.
- To view or download a copy of the Agency Funding of Enhancements process for AASHTOWare Project, login to aashtowareproject.org and navigate to Community > Get Involved > Agency Funding for Enhancement Items.

Introduction

AASHTOWare Bridge Design and AASHTOWare Bridge Rating software products are comprehensive bridge design and load rating tools developed by AASHTO. For an agency's bridge inventory, the products store detailed bridge descriptions sufficient for structural analysis. AASHTOWare Bridge Design is the tool for assisting in the design of both superstructures and substructures in accordance with the AASHTO LRFD Bridge Design Specifications. AASHTOWare Bridge Rating is a tool for rating bridge superstructures in accordance with the AASHTO Manual for Bridge Evaluation, AASHTO Standard Specifications for Highway Bridges, and AASHTO LRFD Bridge Design Specifications. The two products share much of their user interface and database. When both products are licensed, a bridge can be designed using AASHTOWare Bridge Design and be immediately available to AASHTOWare Bridge Rating for load rating without re-entering and validating additional data. Refer to the detailed features and capabilities for each product below.

There are three primary components to the system: the user interface, the database and the analysis or computational engines. The database and user interface are capable of supporting a two or three-dimensional description of a bridge. Three-dimensional description is the basis for the 3-D modeling and analysis of special vehicle configurations. The computational engines support both line girder and 3-D analyses.

AASHTOWare Bridge Design and AASHTOWare Bridge Rating use a common database to allow an agency to store a detailed description of each bridge, which is independent of the analytical engine (including specification checking) and the user interface. The concept of storing generic bridge descriptions in a database provides many powerful user and agency benefits. Among the benefits are:

- Designing and rating a bridge using multiple analysis programs and specifications from the same description and input;
- Upgrading and/or replacing components of the system, including the structural analysis engine, specification checking software, and user interface while preserving the basic bridge data; and
- Easily linking to other related software systems, including bridge management systems such as AASHTOWare Bridge Management.

AASHTOWare Bridge Design/AASHTOWare Bridge Rating Products and Project Functionality—Long Term

Long-term functionality changes include:

- Moving toward a hybrid on-premise and cloud-based solution by leveraging and refactoring the exiting system's core foundation and analytical components;
- Additional automated design features and advanced capabilities through the AASHTOWare Prestressed Concrete Design Tool and Steel Plate Girder Design Tool;
- New analysis, design review, and load rating features are being explored for additional bridge types and bridge framing options and are expected to be introduced over the upcoming years, including a generic modeling approach; and
- Ongoing commitment to the advancement of the software platform to keep current with the latest technology provided by the Windows Technology Stack and Database Management Systems.

The AASHTOWare Bridge Design and AASHTOWare Bridge Rating 7.5.0 and 7.5.1 released in FY2024 brings exciting improvements and features that were requested by the user community. This release adds the following capabilities and features.

- Advanced concrete multi-cell box superstructure LFR and LRFR—Curved and with complex geometry and configuration;

- Next Generation of Report Tool Phase 1—New reporting framework and report editor;
- AASHTO Manual for Bridge Evaluation updates (3rd Edition, 2023 Interim Revisions)—Changes to concrete shear and evaluation of shear load rating;
- Improvements to numerous existing features and functionality;
- Numerous AASHTO Analysis Engine Maintenance tasks; and
- Top voted user group enhancements.

AASHTOWare Bridge Rating 7.5.0 and 7.5.1 are the last releases to provide the Madero ASR analysis module. The AASHTOWare Bridge Design and Rating Task Force strongly encourages users switching to use the AASHTO Timber ASR Engine as soon as possible.

AASHTOWare Bridge Design—LRFD Bridge Design

AASHTOWare Bridge Design employs the same database and graphical user interface as AASHTOWare Bridge Rating and has the same application program interface for third-party add-on modules. (See AASHTOWare Bridge Rating section on Architectural Support for Third-Party Customizations and Add-Ons.) AASHTOWare Bridge Design includes an LRFD analysis engine. This analysis engine supports the current analysis needs of the software and designers can run multiple analysis programs from one definition of a bridge.

The Prestressed Concrete Design Tool includes libraries of beam shapes, vehicles, materials, and the capabilities required to analyze and design a single prestressed concrete beam or all the beams in a cross-section. The user can describe the overall bridge geometry (framing plan) that includes multiple prestressed concrete beams. This is the “System” definition in AASHTOWare Bridge Design and AASHTOWare Bridge Rating. The tool will compute live load distribution factors and both dead loads and live loads. The user specifies design parameters, such as a range for the beam depth, and the tool will optimize a strand pattern for harped strands and/ or debonded strands as specified that satisfies the AASHTO LRFD Bridge Design Specifications.

The Steel Plate Girder Design Tool’s user interface style and capabilities are based off the Prestressed Concrete Design Tool. Initial trial girder sections will be selected based on the user-entered minimum and maximum widths and thicknesses and the recommendations in the FHWA’s Steel I-Girder Bridge design examples. In addition, guidelines provided by AASHTO/NSBA for constructability will be considered for initial trial girder sections and subsequent optimization cycles.

Bridge Configurations and Capabilities

Superstructure configurations and capabilities include:

- Simple spans, continuous spans, hinges (Steel and Reinforced Concrete);
- U.S. Customary and S.I. units;
- Girder-line and 3D-FEM analyses;
- Parallel and flared girder configurations;
- Reinforced concrete tee beams, slabs, I-beams and multi-cell box beams;
- Reinforced concrete box culverts;
- Prestressed concrete box, I, tee and U-beams (precast, pretensioned continuity for live load);
- Harped strands and debonded strands;
- Steel rolled beams (including cover plates);
- Steel built-up plate I-girders;
- Steel welded plate I-girders (including hybrid);
- Parallel, tapered, parabolic, and circular webs;

- Transverse and longitudinal stiffened steel girders;
- Frame structure simplified definition;
- 3-D analysis of steel and concrete multi-girder superstructures; and
- 3-D analysis of curved steel multi-girder superstructures

Substructure capabilities include:

- Analysis and specification-checking of bridge piers including wall, hammerhead and multi-column pier bents;
- Single drilled shaft for substructure.

Design Review/Specification Checking Features

- LRFD specification checking with detailed computation reporting (for example, failed specification or resistance checks can be examined with equation and article references including inputs, output and conclusions);
- Design ratio graphs and summary reports;
- Wizards for simplifying the design of steel and prestressed concrete bridges; and
- AASHTO engine for LRFD design review/specification checking.

LRFD Design Capabilities

- Prestressed Concrete Design Tool;
- Steel Plate Girder Design Tool;
- Shear Stirrup Design Tool;
- Shear Stud Design Tool;
- Flange to web weld design; and
- Reinforced Concrete Box Culvert Design Tool.

Common Database and User Interface

Since AASHTOWare Bridge Design and AASHTOWare Bridge Rating share the same database, all structural models built with AASHTOWare Bridge Design will automatically be available for analysis in AASHTOWare Bridge Rating. Both systems also share a common interface with AASHTOWare Bridge Management, thus providing an integrated set of tools covering the entire life cycle of the bridge inventory.

Output Reporting Features

AASHTOWare Bridge Design provides a sophisticated set of output reports to help the designer understand the performance of a new bridge. A tree-structured graphical representation of the LRFD specification indicates whether each article is passed or failed and provides access to the detailed calculations for the bridge as well as the specification text. A suite of X-Y plots provide a graphical representation of moments, shears, deflections, and other valuable information.

Substructures

AASHTOWare Bridge Design substructure provides for the analysis and specification-checking for common pier types including wall, hammerhead and multi-column bents. If funding permits other substructure types, including abutments, may be added.

AASHTOWare Bridge Rating—Bridge Load Rating System

AASHTOWare Bridge Rating is AASHTOWare’s product for bridge load rating, featuring state-of-the-art graphical tools to speed preparation of the data and application of the results. Using a newly developed AASHTO module as its analytical engine for load and resistance factor rating (LRFR), load factor rating (LFR) and allowable stress rating (ASR), Bridge Rating provides an integrated database where rating inputs and outputs can readily be stored, reviewed and re-used. Through this database and the application-independent user interface, a user may provide a 3-dimensional description of a bridge superstructure. This bridge data can then be used by a variety of line-girder, 2-D or 3-D analysis packages, permit/routing systems and other third-party produced applications.

Bridge Configurations and Capabilities

- Simple spans, continuous spans, hinges (Steel and Reinforced concrete);
- U.S. Customary and S.I. units;
- Girder-line and 3D-FEM analyses;
- Parallel and flared girder configurations;
- Reinforced concrete tee beams, slabs, I-beams, and multi-cell box beams;
- Reinforced concrete box culverts;
- Metal box culverts;
- Prestressed concrete box, I, tee, and U-beams (precast, pretensioned, continuity for live load);
- Post-tensioned multi-cell box beams;
- Harped strands and debonded strands;
- Steel rolled beams (including cover plates);
- Steel built-up plate I-girders;
- Steel welded plate I-girders (including hybrid);
- Parallel, tapered, parabolic, and circular webs;
- Transverse and longitudinal stiffened steel girders;
- Frame structure simplified definition;
- Steel trusses and floor systems;
- Timber beams and decks;
- Corrugated metal decks;
- 3-D analysis of steel and concrete multi-girder superstructures; and
- 3-D analysis of curved steel multi-girder superstructures.

Load Rating Features

- Load rate various structure units within a bridge;
- Load rate various members within a structural unit;
- Rate a user-defined group of bridges;
- Input definition and rating of deteriorated sections;
- Review of rating history for groups of bridges and routing applications;
- AASHTO engine for LRFR/LFR/ASR analyses;
- Load rate timber and corrugated metal decks;
- Load rate girder–floorbeam–stringer configurations;
- Load rate truss–floorbeam–stringer and floor-truss configurations;
- Permit rating with routine traffic in adjacent lane;

- A vehicle library capable of defining any number of wheels on any number of axles; and
- Rating of non-standard gage vehicles by loading a 3-D influence surface.

Bridge Load Rating and Permit Vehicle Analysis Database

Having all of an agency's bridge data in a standardized accessible form makes it economical to build powerful new features for management of the load rating process and for support of routine business activities such as policy development and overload permit application review. For example, bridges along a route can be placed into folders, where an entire route can be rated for a permit vehicle in a single step. Permit analysis can include sophisticated three-dimensional analysis to consider load effects due to a specific vehicle traveling along a user-defined path on a structure. AASHTOWare Bridge Rating complies with corporate database management standards by supporting the widely used Oracle and Microsoft SQL Server database managers, including their data sharing and security features.

The Load Rating Tool provided in AASHTOWare Bridge Rating is capable of very quickly computing load ratings. To the extent possible, data utilized for computing load ratings will be computed and preserved in advance which greatly reduces the time required to produce a load rating when requested. This feature allows AASHTOWare Bridge Rating users to quickly compute load ratings based on a vehicle description and a list of bridges more quickly than performing a traditional rating analysis. The rating tool is not a permitting system and cannot select a route or generate a list of bridges along a route. It can, however, utilize a list of bridges selected by the user and rate those bridges in the rating repository. A software interface is provided that enables the rating tool to be called from other systems, including permitting systems, to utilize this data.

Graphical Features and Customizable Libraries

AASHTOWare Bridge Rating contains a host of features to make load rating as easy as possible. Libraries of standard and user-defined vehicles, loads, steel and pre-stressed shapes, load and resistance factors, materials, parapets, and other bridge components allow bridge models to be built quickly in a drag-and-drop manner. All or part of a bridge can quickly be copied to another bridge. As a bridge model is constructed, a graphical schematic framing plan, elevation view, cross-section view, and other schematics provide feedback and make common types of errors apparent.

Architectural Support for Third-Party Customization and Add-ons

Since the structural model of a bridge in a database can be complex, AASHTOWare Bridge Design and Rating provides a simplified object model that ties the modules of the system together and makes the software open to expansion by sophisticated users and third-party developers. The AASHTOWare Bridge Design and Rating .NET Application Program Interface makes it possible to access the system's data and functionality from many commercial software packages, including Visual Basic®, Excel®, AutoCAD®, and even Microsoft Word®. AASHTO encourages third-party developers to market add-on features, which enhance the core capabilities of the system.

User Support

User support is provided for licensed AASHTOWare Bridge Design and AASHTOWare Bridge Rating users primarily online via the Internet. Support mechanisms include:

- AASHTOWare Bridge Design and Rating Support Center—Assists users and support staff in managing support requests. Users can view past requests and staff responses, and add new requests of their own;
- Support hours are 9 a.m. to 6 p.m. Monday through Friday Eastern time, excluding Federal holidays. The processing priority of support requests is based on the order of submission with consideration of the request's urgency and impact;
- AASHTOWare Bridge Design and AASHTOWare Bridge Rating Technical Notes—Contains answers to frequently asked questions, announcements of changes, discussion of hardware requirements, and modeling considerations;
- Download—Patches, updates, add-ins, and documentation are available on the product website; and

- Web Site—The AASHTOWare Bridge Design and Rating Technical Support web site at <https://www.aashtoware-bridge.com/bridge-rating-and-design> provides access to all the AASHTOWare Bridge Design and AASHTOWare Bridge Rating support information and links to related materials.

Agencies wishing to supplement the support hours available under its selected license may purchase Service Units to meet their forecasted support needs. This additional service is not a prerequisite for licensing the AASHTOWare Bridge Design-Rating software, nor does it affect in any way the normal support, maintenance, and enhancement services provided under the AASHTO license agreement and normal fee structure for the AASHTOWare Bridge Design-Rating software.

Hardware and Software Environments

For the latest supported configurations, please visit: <https://www.aashtowarebridge.com>.

Minimum Configuration

Hardware Requirements	
Machine	Intel Core i7 processor or equivalent
Memory	32 GB or more
Video	1600x1200
Mouse	Microsoft® or compatible
Hard Disk	1 TB*

* Solid State Drive is recommended for 3D FEM analysis.

Database Support and Sunset Status

Database support for AASHTOWare Bridge Design or AASHTOWare Bridge Rating is coordinated with the avail ability of support that the industry vendors provide. This table will change as Oracle or Microsoft ceases support for any of the listed versions.

Platform	Version(s)	Status
Oracle	19c R3 (19.3)	Active
MS SQL Server*	2019	Active
MS SQL Server Express*	2019	Active
MS Azure SQL	Azure cloud managed	Active
PostgreSQL	15	Active

* Previous versions of SQL Server are not supported.

Current Annual Fees and Licensing Options

AASHTO offers a variety of licensing options to meet the unique needs of transportation agencies. Beyond the base software package, each license provides various features and service levels. For licensees who desire additional features and/ or levels of service beyond those defined in the license, additional Service Units can be purchased separately.

New licensees are encouraged to secure database set-up support via the purchase of one Service Unit coincident with the first licensing cycle. Licensees can also purchase Service Units in order to provide consultation, training, and support to assist the licensee in the implementation of the AASHTOWare Bridge Design-Rating software. For additional information on Service Units, see the section on Service Units below.

AASHTOWare Bridge Design Single Workstation Option

This option includes the complete AASHTOWare Bridge Design software for designing (analysis and specification checking) steel, reinforced concrete and prestressed concrete superstructures on a standalone workstation. This option includes both installation support and application support. Use of the AASHTOWare Bridge database under this license is limited to a single user at a time working on the same machine where the database is installed. Prorated options are available for special research projects upon request.

Description	Annual License Fee
First License AASHTOWare Bridge Design Single Workstation Option	\$12,400
Subsequent AASHTOWare Bridge Design Single Workstation Option	\$10,800

Organizations licensing workstation versions of both AASHTOWare Bridge Rating and AASHTOWare Bridge Design may request to have their software delivered with a single-user interface which provides access to both products.

AASHTOWare Bridge Design Unlimited Option (AASHTO Member Agency)

This AASHTO member agency option includes the complete AASHTOWare Bridge Design software described above for use on an unlimited number of workstations within the agency or installed on a server for unlimited user access. This license includes both installation support and application support.

This license offers the licensee to purchase database hosting services provided by the AASHTOWare Bridge Design and AASHTOWare Bridge Rating contractor, ProMiles Software Development Corporation. See the Database Hosting Services section below for more information.

Description	Annual License Fee
AASHTOWare Bridge Design Unlimited Option (AASHTO Member Agency)— without database hosting services	\$47,000
AASHTOWare Bridge Design Unlimited Option (AASHTO Member Agency)— with database hosting services	\$113,000

AASHTOWare Bridge Design Unlimited Option (Non-Member Organization)

This non-member organization option includes the complete AASHTOWare Bridge Design software described above for use on an unlimited number of workstations within the non-member organization or installed on a server for unlimited user access. This license includes both installation support and application support.

This license offers the licensee to purchase database hosting services provided by the AASHTOWare Bridge Design and AASHTOWare Bridge Rating contractor, ProMiles Software Development Corporation. See the Database Hosting Services section below for more information.

Description	Annual License Fee
AASHTOWare Bridge Design Unlimited Option (Non-Member Organization)— without database hosting services	\$62,600
AASHTOWare Bridge Design Unlimited Option (Non-Member Organization)— with database hosting services	\$128,600

AASHTOWare Bridge Rating Single Workstation Option

This option includes the complete AASHTOWare Bridge Rating software for load rating steel, reinforced concrete, prestressed concrete and timber superstructures on a standalone workstation. This option includes both installation support and application support. Use of the AASHTOWare Bridge database under this license is limited to a single user at a time working on the same machine where the database is installed. For research, a prorated option may be available upon request.

Description	Annual License Fee
First License AASHTOWare Bridge Rating Single Workstation Option	\$12,400
Subsequent License AASHTOWare Bridge Rating Single Workstation Option	\$10,800

Organizations licensing workstation versions of both AASHTOWare Bridge Rating and AASHTOWare Bridge Design may request to have their software delivered with a single user interface, which provides access to both products.

AASHTOWare Bridge Rating Unlimited Option (AASHTO Member Agency)

This AASHTO member agency option includes the complete AASHTOWare Bridge Rating software described above for use on an unlimited number of workstations within the agency or installed on a server for unlimited user access. This license includes both installation support and application support.

This license offers the licensee to purchase database hosting services provided by the AASHTOWare Bridge Design and AASHTOWare Bridge Rating contractor, ProMiles Software Development Corporation. See the Database Hosting Services section below for more information.

Description	Annual License Fee
AASHTOWare Bridge Rating Unlimited Option (AASHTO Member Agency)— without database hosting services	\$47,000
AASHTOWare Bridge Rating Unlimited Option (AASHTO Member Agency)— with database hosting services	\$113,000

AASHTOWare Bridge Rating Unlimited Option (Non-Member Organization)

This non-member organization option includes the complete AASHTOWare Bridge Rating software described above for use on an unlimited number of workstations within the non-member organization or installed on a server for unlimited user access. This license includes both installation support and application support.

This license offers the licensee to purchase database hosting services provided by the AASHTOWare Bridge Design and AASHTOWare Bridge Rating contractor, ProMiles Software Development Corporation. See the Database Hosting Services section below for more information.

Description	Annual License Fee
AASHTOWare Bridge Rating Unlimited Option (Non-Member Organization)— without database hosting services	\$62,600
AASHTOWare Bridge Rating Unlimited Option (Non-Member Organization)— with database hosting services	\$128,600

Special Consultant/Agency Option

Consulting engineering firms performing rating or design work, or other agencies working with and supplying information to/for a member agency holding a valid license to the AASHTOWare Bridge Design or AASHTOWare Bridge Rating Unlimited Option may obtain a single workstation copy of AASHTOWare Bridge Design or AASHTOWare Bridge Rating for a special license fee. Under this licensing option, the sponsoring member agency (holding the Unlimited Option license) must approve the consultant to license under their unlimited option license to perform work on bridges that are included in their unlimited license inventory. The member agency is responsible for providing confirmation the consulting firm is performing work on their behalf prior to the processing of the order. This special licensing option is also available to universities engaged in performing research on bridges in the unlimited licensing inventory of a sponsoring member agency holding a valid license to the AASHTOWare Bridge Design or AASHTOWare Bridge Rating Unlimited Option, provided such special license request is approved by the sponsoring agency. The system requires a database engine. Contractor support for this licensing option is limited to two (2) hours of installation support. If additional installation support is required, licensees should secure additional services via the Contractor/Developer Extended Support offering. Application support for consultants licensing under this option is provided by the Unlimited Option sponsoring agency.

Description	Annual License Fee
AASHTOWare Bridge Rating Special Consultant Option	\$6,500 per workstation
AASHTOWare Bridge Design Special Consultant Option	\$6,500 per workstation

Organizations licensing workstation versions of both AASHTOWare Bridge Rating and AASHTOWare Bridge Design may request to have their software delivered with a single user interface which provides access to both products.

AASHTOWare Bridge Rating Agency Sponsored Consultant License

A member agency who is a licensee of the AASHTOWare Bridge Rating Unlimited Option may purchase on behalf of consulting engineering firms performing rating work for the member agency, or a member-supported local agency, the following AASHTOWare Bridge Rating license “bundles”. Member agencies licensing this option must provide AASHTO with a list of consultants authorized to secure a license under their license prior to the beginning of the AASHTO fiscal year. The software requires a database engine and includes limited support by the sponsoring member agency. Consulting firms or local agencies using this license option will be required to sign a software license agreement with AASHTO. Contractor/local agency support under this licensing option is limited to two (2) hours of installation support. If additional installation support is required, contractors/local agencies should secure additional services via the Contractor/Developer Extended Support offering. Application support for consultants licensing under this option is provided by the member agency sponsoring the license.

Note: Member agencies licensing this option must provide AASHTO with a list of the consultants/local agencies authorized to secure the Bridge Rating software under their license to perform rating work for the member agency. This list, required to support the execution of software license agreements and the delivery of software to authorized consultants/local agencies, must be provided to AASHTO in Excel format prior to the beginning of the AASHTO fiscal year (July 1st) for each year this license is secured. Detailed information on the required information and the associated process is available here.

Description		Annual License Fee
AASHTOWare Bridge Rating (Agency Sponsored License)	50 Licenses	\$128,925
	75 Licenses	\$173,500
	100 Licenses	\$231,400
	125 Licenses	\$289,200
	150 Licenses	\$347,150

Standalone Developer Option

This option is available to third-party developers, subject to AASHTOWare Bridge Design and Rating Task Force approval, who wish to create bridge software tools that would link to the AASHTOWare Bridge database and/or utilize the AASHTOWare Bridge Design/AASHTOWare Bridge Rating GUI. End users of third-party tools would be required to be a licensee of the AASHTO base system described above in order to use the third-party linkage. A third-party developer cannot distribute the AASHTO base system. Third-party developed software can be licensed, if desired, by the third-party developer independent of AASHTO.

The licensee of this product will be required to sign a non-disclosure agreement. Furthermore, any third-party application that links to the AASHTOWare Bridge Design-Rating API that also provides an ability to externally create, consume, and/or modify bridge models, must provide a mechanism to import bridge models developed using that application into AASHTOWare Bridge Design-Rating. Any third-party application which meets the aforementioned criteria must provide a mechanism to support data in both directions, to include data import from that application into AASHTOWare Bridge Design-Rating, even if the model was originally created in the third-party application. The provided mechanism must adhere to a data standard that can ensure the integrity and accuracy of the model. The license fee includes five (5) hours of installation support.

Note: This license is only available to organizations who licensed the developer license in Fiscal Year 2024. If your organization did not license the developer license in Fiscal Year 2024, please contact AASHTO to discuss the Alliance Program.

Description	Annual License Fee
Standalone Developer Option	\$2,200

Educational Option

This option exists for educational institutions within the jurisdictions of our Member Departments, and/or Associate Members to AASHTOWare Bridge Design or AASHTOWare Bridge Rating free of charge for use in the classroom. This option is not available to individuals, and it is not to be used for research, graduate work or any other purpose.

The educational option license offers full functionality with the following limitations:

Maximum number of spans:	3
Maximum span length:	No limit
Maximum number of girders per structure:	10
Maximum number of bridges:	No limit

Note: A licensing agreement executed by the institution assuring compliance with the education and training limitation is necessary to exercise this option.

Consultant/Developer Extended Support

This option provides extended support services to consultants beyond those provided with their licensing option. This option also provides support for third-party developers who wish to create bridge software tools that would link to the AASHTOWare Bridge database and/or utilize the AASHTOWare Bridge Design/AASHTOWare Bridge Rating GUI. The extended support services are intended to provide consultation and support to consultants and/ or assist third-party developers in the development and implementation of third-party applications, and may include the following types of activities:

- Specialized training, bridge modeling consultation and custom reporting;
- Assisting client/database server installation and configuration;
- Specialized training in the use of the AASHTOWare Bridge Design and Rating Application Program Interface;
- Software application architecture and system design;

- Performing software development tasks; and
- Troubleshooting and testing of third-party applications.

Description	License Fee
10 hours of contractor support services	\$2,100

Database Hosting Services

The unlimited licensing options offer the licensee to purchase database hosting services provided by the AASHTOWare Bridge Design and AASHTOWare Bridge Rating contractor, ProMiles Software Development Corporation (ProMiles). The database hosting services include the following predefined managed services:

- Microsoft Azure SQL environment;
- 99.99 percent uptime guarantee;
- Two production site migrations included;
- Test database access (before and/or after upgrades);
- Periodic refreshing of test database data from production database;
- Unlimited number of users can access;
- Performance monitoring by ProMiles;
- Automatic nightly database backups retained in Azure Blob storage for 90 days; and
- Data encryption (both at rest and in transit).

Please contact ProMiles if you would like more information on the details of the predefined managed services or any additional services available.

AASHTOWare Bridge Design & Rating Licensing Arrangements

PGSuper Professional™

PGSuper Professional™ is a proprietary software product of BridgeSight Inc., South Lake Tahoe, California. AASHTO Member Departments and Associate Members wishing to use PGSuper Professional must license the software from AASHTO and abide by the terms and conditions granted by this license agreement, which is incorporated by reference into the AASHTO licensing agreement(s). A copy of the AASHTO-BridgeSight agreement will be provided to any requesting member or associate member agency.

PGSuper Professional models simple and continuous span conventional pre-tensioned precast/prestressed bridge girder structures. It designs, performs specification checks, and load rates in accordance with the AASHTO LRFD Bridge Design Specifications, the AASHTO Manual for Bridge Evaluation for LRFR Load Ratings, and DOT agency-specific criteria.

PGSuper Professional adds over a dozen enhancements to the basic PGSuper software including the ability to translate bridge models from PGSuper to the AASHTOWare Bridge Design and Rating database. Other powerful features include: the Girder Design Dashboard™, 3D model visualization, enhanced reporting, enhanced library management, data exchange with Microsoft Excel, DXF, LandXML, and ViaThor's VBent substructure design software. PGSuper Professional also adds exclusive section types including the PCI NorthEast NEXT Beam, all CalTrans standard sections, Colorado DOT standard Sections, Oregon DOT standard Sections, Florida I Beam, square-voided slab, and the Illinois IL Girder. Also, for ease of use, PGSuper Professional includes access to cloud-based configurations for a growing number of DOTs.

Compatibility with AASHTOWare Bridge Design and Rating

The BridgeSight PGSuper Professional AASHTO Bridge Data Exporter translates a detailed precast, pretensioned girder bridge superstructure model from PGSuper to the AASHTO Bridge database in seconds. Translated data includes the

bridge geometry and framing information, concrete, reinforcing and prestressing materials, LRFD resistance factors, load case descriptions, dead and live loads, sidewalk definitions, allowable stress limits, prestress losses, live load distribution factors, and much more. After translation, bridges can be checked and load rated by AASHTOWare Bridge Design & Rating to provide a secondary method of calculation for verification as is recommended by Section 4.4 in the AASHTO LRFD Bridge Design Specifications.

Data translation is performed through the AASHTOWare Bridge products API, which is considered to be the safe, preferred method to write data into AASHTOWare Bridge Design & Rating. BridgeSight products are compatible with BrDR 7.1 but will no longer work with the legacy versions of the software. Contact BridgeSight for additional information.

Hardware Requirements

The minimum hardware requirements for PGSuper Professional are the same as for the AASHTOWare Bridge Rating-Design programs. A minimum video resolution of 1280x1024 (SXGA) is recommended.

Licensing Options

Description	Number of Support Contacts	Annual License Fee
Single User	1	\$1,725
Single Site	1-3	\$5,175
Single Site	5	\$6,326
Single Site	6 or more	\$1,150/Contact

A Single-User license allows one designated individual to use PGSuper Professional on up to two computers (typically, one desktop and one laptop computer). This person may also utilize support services and is entitled to product updates over the license duration.

Single-Site Licenses provide unlimited installations for an entire office located at a single physical address. Companies must purchase a Single-Site License for each office location separately. Single-Site License pricing is based on the number of contacts for support desired for that office. Support is made available to only those individuals on the Support Contact list. A list of Support Contacts is created at the time of software delivery and may be modified up to twice annually. Licensees are entitled to all product updates over the license duration.

BridgeLink Professional™

BridgeLink Professional™, a suite of bridge engineering software, is a proprietary product of BridgeSight Inc., South Lake Tahoe, California which interfaces with the AASHTOWare Bridge Design & Rating database for precast-prestressed girder bridges and provides additional features and tools to support bridge design and rating activities.

BridgeLink contains the following software tools.

- **PGSuper Professional™**—a tool for precast-prestressed girder bridge design, analysis, and load rating
- **PGSplice Professional™**—a tool for precast-prestressed spliced girder bridge design, analysis, and load rating
- **BEToolbox™**—Bridge Engineering Toolbox utility programs
- **PGStable™**—Precast girder lifting and hauling stability analyses
- **TOGA™**—TxDOT Optional Girder Analysis tool
- **XBRate™**—reinforced concrete cross beam load rating

Hardware Requirements

The minimum hardware requirements for BridgeLink Professional are the same as for the AASHTOWare Bridge Rating–Design programs. A minimum video resolution of 1280x1024 (SXGA) is recommended.

Licensing Options

Description	Number of Support Contacts	Annual License Fee
Single User	1	\$4,025
Single Site	1–3	\$11,500
Single Site	5	\$15,525
Single Site	6 or more	\$2,645/Contact

A Single-User license allows one designated individual to use PGSuper Professional on up to two computers (typically, one desktop and one laptop computer). This person may also utilize support services and is entitled to product updates over the license duration.

Single-Site Licenses provide unlimited installations for an entire office located at a single physical address. Companies must purchase a Single-Site License for each office location separately. Single-Site License pricing is based on the number of contacts for support desired for that office. Support is made available to only those individuals on the Support Contact list. A list of Support Contacts is created at the time of software delivery and may be modified up to twice annually. Licensees are entitled to all product updates over the license duration.

Contact Information

Additional information about PGSuper Professional and BridgeLink Professional can be found at <http://bridgesight.com> or by contacting:

Richard Pickings, P.E.
BridgeSight Inc.
764 Elk Point Drive
South Lake Tahoe, CA 96151
mkting@bridgesight.com
(877) 441-0346

Service Units

For the period from July 1, 2024 through June 30, 2025, AASHTO has established an arrangement with its AASHTOWare Bridge Design and AASHTOWare Bridge Rating contractor, ProMiles Software Development Corporation, to offer the opportunity for agencies to acquire special fixed-fee increments or units of contractor-provided service for consultation and support to assist the licensee in expediting conversion to the current generic releases of AASHTOWare Bridge Design/AASHTOWare Bridge Rating or any related bridge design or bridge load rating needs using the software. During this period, an agency may commit to one or more units of service. The fee for each unit of service provides approximately 55 total hours of labor by a contractor employee.

The actual number of hours may vary depending on the AASHTO billing level of the employees involved and whether or not any direct costs or travel costs are involved. Service Units remaining at the conclusion of a fiscal year will be carried forward into the next fiscal year. The number of Service Units carried forward will be adjusted to reflect the subsequent year's price per unit, but the dollar value of the licensee's Service Units available will remain the same.

Service Unit Work Plan Development

Service Unit Contractor (ProMiles Software Development Corporation) is an independent contractor and is solely responsible for all aspects of the performance, delivery, quality and terms and conditions of service they provide to agencies.

AASHTO SHALL NOT BE RESPONSIBLE AND DISCLAIMS ANY AND ALL LIABILITY FOR ANY DAMAGE OR LOSS WHATSOEVER, INCLUDING PERSONAL INJURY, DAMAGE TO PROPERTY, OR LOSS OF BUSINESS OPERATIONS, INFORMATION OR DATA, ARISING OUT OF OR RELATING TO ANY ACT OR OMISSION OF SERVICE UNIT CONTRACTORS, THEIR EMPLOYEES, AGENTS, AND SUBCONTRACTORS.

It is highly recommended that each agency review its service needs with the appropriate AASHTOWare Bridge Design/AASHTOWare Bridge Rating contractor, develop a firm estimate of the number of units required and establish work plans and other terms and conditions of service, including the schedule for delivery, prior to submitting their commitment. Further, the AASHTOWare Bridge Design and Rating Task Force reserves the right to review work plans for Service Unit work to ensure conformance with the guidelines for their use.

This service is not a pre-requisite to license AASHTOWare Bridge Design/AASHTOWare Bridge Rating, nor does it affect in any way the normal support, maintenance, and enhancement services provided under the AASHTO license agreement and normal fee structure for AASHTOWare Bridge Design/AASHTOWare Bridge Rating.

Choosing this special offering is strictly the prerogative of an agency. The intent of Service Units is to offer the opportunity for an agency to acquire special fixed-fee increments or units of contractor-provided service for consultation and support. AASHTO shall serve as facilitator only by accepting the commitment for such contractor-provided services, invoice and receive payment on behalf of the agency and forward the order and payment to the contractor for the appropriate number of units of services ordered.

Further, AASHTO assumes no responsibility or liability for any obligation of Service Unit Contractors, including scheduling or delivery of such units of service. It shall remain the responsibility of the subscribing agency to schedule their individual unit(s) of service and establish any other terms and conditions directly with the contractor.

Service Unit Work Options

Service units are intended to provide consultation and support to assist the licensee in the implementation of the AASHTOWare Bridge Design/AASHTOWare Bridge Rating products, and may include the following types of activities, or work by the contractor:

- Updating prior releases of the AASHTOWare Bridge Design/AASHTOWare Bridge Rating database;
- Adding an analytical or specification engine to the AASHTOWare Bridge Design/AASHTOWare Bridge Rating system;
- Specialized training in the use of AASHTOWare Bridge Design or AASHTOWare Bridge Rating
- Addressing database issues
- Preparing and importing bridge data
- Performing regression testing on bridge data for new or existing features
- Developing custom reports.

Note: The examples listed above may require more than one service unit each, depending on specific agency requirements.

In general, Service Units should not be used for work involving major new software development by member agencies. Service Units may be converted to provide additional enhancement funding under the guidance of the Task Force.

To ensure that ownership issues are resolved, significant development work related to AASHTOWare products and enhancement requests utilizing service units should be reviewed by the Task Force prior to the work being performed. The use of

Service Units to perform modifications that change AASHTO product source code must be reviewed and approved by the Task Force. Service units may not be used to provide reimbursement for travel expenses by agency personnel.

Fee for Service Units

This service is offered and can be ordered in unit increments of \$11,600, which cannot be prorated and shall be paid upon receipt of the invoice. This fee includes the AASHTO administrative costs. Each service unit provides \$10,000 in contractor services.

Additional Funding for Development/Enhancement Items

The AASHTOWare Bridge Design and Rating Task Force recognizes that some member agencies might desire certain additional development or may desire to accelerate development of an AASHTOWare Bridge Design/AASHTOWare Bridge Rating optional component(s), and may be in a position to fund such development. In fact, the practice of individual and/or groups of member agencies funding specific development/enhancement work through AASHTO's contracts with its software service providers has long been an acceptable means of accomplishing such work.

Process for Funding Additional Enhancements

Any member department, or group of member departments that desires to fund development/enhancement work for one or more AASHTOWare Bridge Design/AASHTOWare Bridge Rating modules that will not be addressed in our current work plan(s) should follow the process outlined below:

- Submit a request to the AASHTOWare Bridge Design and Rating Task Force describing the desired enhancement(s). This request should also indicate which member departments are considering or are prepared to fund the additional enhancement work, as well as an indication of how incorporating the desired enhancement will benefit the AASHTO community of users as a whole;
- If the desired enhancement is acceptable to the Task Force, the Task Force will direct the AASHTOWare Bridge Design/AASHTOWare Bridge Rating contractor to develop system requirements, cost estimate, i.e., work plan for the specific enhancement(s) and notify the requesting agency(ies) of the direction. If the desired enhancement is not accepted by the Task Force, the Task Force will provide the requesting agencies with their specific areas of concern;
- Based upon the work plan developed by the AASHTOWare Bridge Design/AASHTOWare Bridge Rating Contractor, the requesting member agency or agencies will be notified of the total cost to accomplish the desired enhancement activity;
- The requesting agency or agencies should submit written funding commitment to AASHTO, attention AASHTOWare Bridge Project Manager, along with instructions for billing, i.e., individual and address to send appropriate invoice(s); and
- Upon receipt of sufficient commitment(s) for funding, AASHTO will initiate the process to approve and execute a contract modification to incorporate the approved enhancement activities.

Introduction

AASHTOWare Bridge Management software (BrM) is a comprehensive asset management system developed to support the challenging task of bridge management. BrM provides a versatile platform for bridge inspection reporting and allows bridge management engineers to use bridge inventory and inspection data; to formulate network-wide preservation and improvement plans. To achieve the maximum benefit from limited funds, the needs of each bridge in a network are evaluated and optimized candidates for construction project programming are recommended. Forecasts of future network conditions based on various funding scenarios provide a means to assess the effectiveness of maintenance and construction strategies.

AASHTOWare Bridge Management

BrM supports the entire bridge management cycle including inspection, maintenance tracking, program optimization, federal reporting, and evaluation of performance measures. The software integrates agency objectives of public safety and risk reduction, user convenience, and preservation of investment to produce optimized budgetary, maintenance, and program policies. It provides a systematic procedure for the allocation of resources to the preservation and improvement of the bridges in a network, by considering the life-cycle costs and benefits of maintenance policies versus investments in improvements or replacements.

BrM supports the collection of inspection data based on the AASHTO Manual for Bridge Element Inspection and provides the user with a well-organized and intuitive user experience. The software continues to be improved and expanded with each release of AASHTOWare Bridge Management. BrM is built with development standards that allow improvements created by one agency to benefit all of the more than 40 state transportation agencies that use the software. The user interface can easily be adapted to meet the needs of the varying business practices of the users.

The BrM framework supports multi-asset data collection and storage of various transportation infrastructure asset types (e.g. retaining walls, tunnels, dams, signs, etc.). In addition to bridges, agencies can collect and report inspection data as defined by the agency. The annual BrM license support does not support agencies using this module to collect asset types that are not transportation infrastructure specific (e.g., office buildings, etc.). Support would be provided only for inspections and management of dams, bridges, and roadway appurtenances.

AASHTOWare Bridge Management provides a full suite of out-of-the-box reports designed to support bridge management needs.

The next major release, version 7.0, includes updates to respond to the National Bridge Inspection Standards (NBIS) and Specifications for the National Bridge Inventory (SNBI). The system consists of a set of modules, each of which is designed to provide the user with the informational display, options, and actions relevant to the module's particular function.

Agencies licensing AASHTOWare Bridge Management in FY2025 will receive the latest version of AASHTOWare Bridge Management and subsequent versions that are released during the fiscal year.

As a web-based system, AASHTOWare Bridge Management supports asset management through a web server either hosted on an agency's intranet or Internet connections or hosted remotely through Mayvue's hosting services. Selecting either the local installation or the cloud-hosted options, does not change the features or capabilities of the platform.

The next generation of the AASHTOWare Bridge Management software, version 7.0, will be a complete overhaul including a new database format and functionalities to meet the new Specification for the National Bridge Inventory (SNBI). As a result, AASHTOWare Bridge Management licensees will be required to upgrade to the 7.X platform. While the 6.X version will remain functional, the support for it will cease as described herein.

Support for AASHTOWare Bridge Management versions 6.1–6.7 will cease on June 30, 2025. Additionally, support for version 6.7.1 will cease on December 31, 2026.

User Support

User support is provided for licensed AASHTOWare Bridge Management users through a variety of means, including phone, email and online ticketing. Support mechanisms include:

- **AASHTOWare Bridge Management Support Center**—Assists users and contractor staff in managing support requests. Users can view past requests/tickets and staff responses, add new requests of their own, and escalated help tickets if needed.
- **User Forum**—Allows users and developers to exchange comments and issues with other users, as well as members of the development and support staff.
- **Download**—Patches, updates, add-ins, and documentation are available on the product website. If an agency's AASHTOWare Bridge Management software is hosted by Mayvue, all patches and upgrades are handled by Mayvue as part of the hosting service.
- **Web Site**—The AASHTOWare Bridge Management web site at <https://www.aashtowarebridge.com> provides access to all the AASHTOWare Bridge Management support information, links to other AASHTOWare products, and AASHTOWare Bridge Management promotional material.

Agencies that have needs to supplement the core support hours available as part of their license may purchase Service Units to meet their forecasted support needs. This additional service is not a prerequisite for licensing the AASHTOWare Bridge Management software, nor does it affect in any way the normal support, maintenance, and enhancement services provided under the AASHTO license agreement and normal fee structure for the AASHTOWare Bridge Management software.

Hardware and Software Environments

For the latest supported configurations, please visit: <https://www.aashtowarebridge.com>. Please note, AASHTOWare Bridge Management no longer supports Internet Explorer 11 as of the version 6.5 release.

Recommended Configuration—Workstation‡

Hardware Requirements	
Machine	Quad Core 3GHz
Memory	16 GB
Video	1920x1080, 32-bit color
Mouse	Microsoft® or compatible
Hard Disk	2 GB Free Space*
Disk Drives	DVD Drive

* Refers to the AASHTOWare Bridge Management install only. Multimedia storage space will vary depending on client needs.

‡ Workstation is only applicable to 6.X versions of BrM only and will not be support for version 7.0 and beyond.

Recommended Configuration—Enterprise (Agency Self-Hosted)

Hardware Requirements	
Machine	Eight Core 3GHz
Memory	32 GB
Video	1920x1080, 32-bit color
Mouse	Microsoft® or compatible
Hard Disk	2 GB Free Space*

* Refers to the AASHTOWare Bridge Management install only. Multimedia storage space will vary depending on client needs.

Software Requirements	
6.X	Microsoft Windows Server 2012 R2 or newer.
7.X	Microsoft Windows Service X or newer.

Database Support and Sunset Status

Database support for AASHTOWare Bridge Management is coordinated with the availability of support that the industry vendors provide. This table will change as Oracle or Microsoft ceases support for any of the listed versions.

BrM 6.X Platform	Version(s)	Status
Oracle	18c (18.1)	Active
	19c (19.1)*	Active
	21c*	Active
MS SQL Server	2014	Active
	2016	Active
	2017	Active
	2019	Active
MS SQL Server Express	2014	Active
	2016	Active
	2017	Active
	2017	Active
	2019	Active

* This version will require Crystals Report 2020.

BrM 7.X Platform	Version(s)	Status
Oracle	21c*	Active
MS SQL Server	2019	Active
	2022	Active
MS SQL Server Express	2019	Active
	2022	Active

* This version will require Crystals Report 2020.

AASHTOWare Bridge Management provides a full suite of out-of-the-box reports designed to support bridge management needs. Reporting is facilitated through SAP Crystal Reports, which allows for new report development and

customization of provided reports. With the purchase of each Agency's AASHTOWare Bridge Management Super Site license, each Agency has a developer license to Crystal Reports 2020. To obtain a license, each Agency should send an email to the contractor, and they will provide the license key.

Current Annual Fees and Licensing Options

By default, agencies will receive installation files via a ShareFile link for download provided by the Bridge Management Contractor. Agencies that are hosted by Mayvue will not have a need to download and install patch and/or installation files. Mayvue will be responsible for upgrading the hosted site to the latest version upon the approval of the agency.

Super Site License

This license allows for use of the AASHTOWare Bridge Management software on an unlimited number of work stations in a single-tenant environment within the agency and permits the agency and their agents to use the software on specified structures within the bounds of the licensing agency's inspection and management responsibilities. The price of the license is fixed regardless of the number of assets stored in/managed by the software. The software can be hosted locally, or for an additional fee, hosted by Mayvue. The Super Site license provides for one AASHTO member agency user to attend the annual user group meeting. The license includes product support, including application support, bug reporting and core related needs. Environmental support is not included within the license as the environment is the responsibility of the agency.

Super Site licensees can purchase Service Units, which can be used to receive consultation, installation support, environmental support, training, and other support assistance from the AASHTOWare Bridge Management Contractor such as Optimizer setup and refinement. For additional information on Service Units, see the section on Service Units below.

This license also allows the licensee to purchase Hosting and Add-On (HAO) Service Units to supplement their existing system with hosting services and/or advanced modules that may further enhance their AASHTOWare Bridge Management solution. For additional information on HAO Service Units, see the section on Hosting and Add-on Service Units below.

Note: AASHTO member agencies are required to register the names and contact information for all contractors/consultants using the AASHTOWare Bridge Management product(s) via their Site License and will be responsible for protecting AASHTO's intellectual property rights to the AASHTOWare Bridge Management product by having each contractor execute the Contractor Agreement in the form specified in Appendix A of the Supplemental License Agreement, and providing a copy of the executed Contractor Agreement to AASHTO.

Description	Annual License Fee	Required Annual Hosting
Super Site License	\$65,340	N/A

Local Agency License

This license allows for use of the AASHTOWare Bridge Management software for an unlimited number of users in a single-tenant environment within the agency and permits the agency to use the software on specified structures within the bounds of the licensing agency's inspection and management responsibilities. The local agency licensing price is based on a reduced inventory of assets than a State member. The Local Agency license is available only through a cloud-hosted environment provided by Mayvue. One database instance is provided with the license. Additional instances can be purchased to meet the licensee's needs. This license includes one seat at the annual user group meeting and fifteen (15) hours of support per year. Additional support may be obtained via the purchase of AASHTOWare Bridge Management Service Units.

Local Agency licensees can purchase Service Units to provide consultation, training, and support to assist the licensee in the implementation and/or advanced use of the AASHTOWare Bridge Management software. For additional information on Service Units, see the section on Service Units below.

Description	Annual License Fee†	Required Annual Hosting
Local Agency License (max. of 1,000 assets)	\$29,400	10.0 HAO Service Units (\$30,000)

† Local Agencies must purchase both the Annual Licensing Fee and Annual Hosting Services.

Educational License

This option exists for educational institutions within the jurisdictions of our Member Departments, and/or Associate Members to AASHTOWare Bridge Management free of charge for use in the classroom. The Educational license is available only through a cloud-hosted environment provided by Mayvue. This option is not available to individuals and it is not to be used for research, graduate work or any other purpose.

Note: A licensing agreement executed by the institution assuring compliance with the education and training limitation is necessary to exercise this option.

AASHTOWare Bridge Mobile Inspection powered by Mayvue

AASHTOWare Bridge Mobile Inspection powered by Mayvue is a proprietary software product of Mayvue LLC, Pittsburgh, Pennsylvania. AASHTO Member Departments and Associate Members wishing to use AASHTOWare Bridge Mobile Inspection powered by Mayvue must license the software from AASHTO and abide by the terms and conditions granted by this license agreement, which is incorporated by reference into the AASHTO licensing agreement(s). A copy of the AASHTO-Mayvue agreement will be provided to any requesting member or associate member agency.

For the period from July 1, 2024, through June 30, 2025, AASHTO has established a catalog option where agencies can purchase the mobile bridge inspection application that functions as an extension of the AASHTOWare Bridge Management software. The application enables agencies to conduct inspections via Android and Apple phone or tablet devices remotely. The application works offline and online to allow inspectors to collect inspection information without an internet connection. Inspectors can use their device’s cameras to capture and annotate photos directly within the application. Inspectors can complete their inspections remotely or choose to sync with AASHTOWare Bridge Management on-demand and resume an inspection in the AASHTOWare Bridge Management software.

This fixed-price option can be purchased for \$60,000 for a period of one year and allows an unlimited number of installations on iOS and Android mobile devices via the Apple App Store or Google Play Store. The yearly license fee includes up to one hundred (100) hours of Mayvue support to the agency.

Description	Annual License Fee
Bridge Mobile Inspection powered by Mayvue	\$60,000

Contact Information

Please contact Mayvue if you would like more information on AASHTOWare Bridge Mobile Inspection powered by Mayvue application, an overview demonstration of the software, or are interested in securing a trial version.

Josh Lang Mayvue LLC
 700 River Avenue, Suite 423
 Pittsburgh, PA 15212
 Josh.lang@mayvue.com

Hosting and Add-On (HAO) Service Units

For the period from July 1, 2024 through June 30, 2025, AASHTO has established an arrangement with its AASHTOWare Bridge Management contractor, Mayvue, to offer the opportunity for agencies to acquire special fixed-fee increments or units of contractor-provided services for hosting and optional add-on Mayvue modules, Hosting and Add-On (HAO) Service Units, for AASHTOWare Bridge Management. During this period, an agency may commit to one or more units of service. HAO Service Units remaining at the conclusion of a fiscal year will be carried forward into the next fiscal year. The number of HAO Service Units carried forward will be adjusted to reflect the subsequent year's price per unit, but the dollar value of the licensee's HAO Service Units available will remain the same.

HAO Service Unit Work Plan Development

The HAO service unit contractor (Mayvue) is an independent contractor and is solely responsible for all aspects of the performance, delivery, quality, and terms and conditions of service they provide to agencies.

AASHTO SHALL NOT BE RESPONSIBLE AND DISCLAIMS ANY AND ALL LIABILITY FOR ANY DAMAGE OR LOSS WHATSOEVER, INCLUDING PERSONAL INJURY, DAMAGE TO PROPERTY, OR LOSS OF BUSINESS OPERATIONS, INFORMATION OR DATA, ARISING OUT OF OR RELATING TO ANY ACT OR OMISSION OF SERVICE UNIT CONTRACTORS, THEIR EMPLOYEES, AGENTS, AND SUBCONTRACTORS.

It is highly recommended that each agency review its service needs with the appropriate AASHTOWare Bridge Management contractor, develop a firm estimate of the number of units required and establish work plans and other terms and conditions of service, including the schedule for delivery, prior to submitting their commitment.

Further, the AASHTOWare Bridge Task Force reserves the right to review work plans for Service Unit work to ensure conformance with the guidelines for their use.

This service is not a pre-requisite to license AASHTOWare Bridge Management, nor does it affect in any way the normal support, maintenance, and enhancement services provided under the AASHTO license agreement and normal fee structure for AASHTOWare Bridge Management. Choosing this special offering is strictly the prerogative of an agency. The intent of these special Hosting and Add-On Service Units is to offer the opportunity for an agency to acquire contractor-provided services and modules to improve the AASHTOWare Bridge Management experience and functionality. AASHTO shall serve as facilitator only by accepting the commitment for such contractor-provided services, invoice and receive payment on behalf of the agency and forward the order and payment to the contractor for the appropriate number of units of services ordered.

Further, AASHTO assumes no responsibility or liability for any obligation of Service Unit Contractors, including scheduling or delivery of such units of service. It shall remain the responsibility of the subscribing agency to schedule their individual unit(s) of service and establish any other terms and conditions directly with the contractor.

Hosting and Add-On Service Unit Options

These service units are intended to provide a means for allowing AASHTOWare Bridge Management licensees to supplement their existing system with hosting services and/or advanced inspection modules that may further enhance their AASHTOWare Bridge Management solution. These options can be tailored to meet an agency needs (including Oracle hosting, read/write database access, and any other needs that may be necessary for an Agency). Examples of possible options for usage include:

- Hosting and maintenance of AASHTOWare Bridge Management
 - Predefined Hosting Services (Included in "Required Annual Hosting" rates above):
 - AWS Production Environment (EC2)
 - 99.99 Percent Uptime Guarantee

- Production Site Upgrades Included
- Periodic Test Site Access (before upgrades)
- Unlimited Number of Users can Access
- Performance Monitoring by Mayvue
- Automatic Nightly Database Backups Retained for 90 Days
- Database Read/Write Access (SQL Server or Oracle)
- Data Encryption (both at rest and in transit)

Additional Hosting Services Available via HAO Service Units:

- Additional Security Requirements (AWS GovCloud)
- Support of Database Customizations (e.g., triggers)
- External Database Connections
- Multiple Failover Redundancy
- Permanent Test Site Availability
- Advanced Agency IT Involvement (e.g., security scans)
- Development Environment Needed
- Purchase of approved plug-in modules for AASHTOWare Bridge Management content as it becomes available.

Fee for HAO Service Units

This service is offered and can be ordered in HAO unit increments of \$3,000, which cannot be prorated and shall be paid upon receipt of the invoice. This fee includes the AASHTO administrative costs. Each HAO service unit provides \$2,500 in contractor services.

Agencies interested in cloud hosting services should contact the contractor, Mayvue, for more information.

Service Units

For the period from July 1, 2024 through June 30, 2025, AASHTO has established an arrangement with its AASHTOWare Bridge Management contractor, Mayvue, to offer the opportunity for agencies to acquire special fixed-fee increments or units of contractor-provided service for consultation and support to assist the agency in expediting conversion to the current generic releases of AASHTOWare Bridge Management. During this period, an agency may commit to one or more units of service. The fee for each unit of service can be used to provide for items such as: labor costs, on-site training, follow-up support, and direct/travel expenses. The actual number of hours may vary depending on the AASHTO billing level of the employees involved. Service Units remaining at the conclusion of a fiscal year will be carried forward into the next fiscal year. The number of Service Units carried forward will be adjusted to reflect the subsequent year's price per unit, but the dollar value of the licensee's Service Units available will remain the same.

Service Unit Work Plan Development

Service Unit Contractor (Mayvue) is an independent contractor and is solely responsible for all aspects of the performance, delivery, quality and terms and conditions of service they provide to agencies.

AASHTO SHALL NOT BE RESPONSIBLE AND DISCLAIMS ANY AND ALL LIABILITY FOR ANY DAMAGE OR LOSS WHATSOEVER, INCLUDING PERSONAL INJURY, DAMAGE TO PROPERTY, OR LOSS OF BUSINESS OPERATIONS, INFORMATION OR DATA, ARISING OUT OF OR RELATING TO ANY ACT OR OMISSION OF SERVICE UNIT CONTRACTORS, THEIR EMPLOYEES, AGENTS, AND SUBCONTRACTORS.

It is highly recommended that each agency review its service needs with the appropriate AASHTOWare Bridge Management contractor, develop a firm estimate of the number of units required and establish work plans and other

terms and conditions of service, including the schedule for delivery, prior to submitting their commitment. Further, the AASHTOWare Bridge Task Force reserves the right to review work plans for Service Unit work to ensure conformance with the guidelines for their use.

This service is not a pre-requisite to license AASHTOWare Bridge Management, nor does it affect in any way the normal support, maintenance, and enhancement services provided under the AASHTO license agreement and normal fee structure for AASHTOWare Bridge Management. Choosing this special offering is strictly the prerogative of an agency. The intent of Service Units is to offer the opportunity for an agency to acquire special fixed-fee increments or units of contractor-provided service for consultation and support. AASHTO shall serve as facilitator only by accepting the commitment for such contractor-provided services, invoice and receive payment on behalf of the agency and forward the order and payment to the contractor for the appropriate number of units of services ordered.

Further, AASHTO assumes no responsibility or liability for any obligation of Service Unit Contractors, including scheduling or delivery of such units of service. It shall remain the responsibility of the subscribing agency to schedule their individual unit(s) of service and establish any other terms and conditions directly with the contractor.

Service Unit Work Options

These services provide for consultation and support to assist the agency in the implementation of the AASHTOWare Bridge Management products and can include the following:

- Importing data into a single-user database;
- Adding agency-specific fields to the AASHTOWare Bridge Management database;
- Developing custom reports and/or forms;
- Migrating Elements to National Bridge Elements;
- Addressing database issues;
- TAMP and NBI Submittal Support;
- Inspection Program setup;
- Mobile Bridge Inspection configuration, customization, and training;
- Optimizer setup and refinement and/or,
- Specialized training in the use of AASHTOWare Bridge Management.

In general, Service Units should not be used for work involving major new software development by member agencies. Service Units may be converted to provide additional enhancement funding under the guidance of the Task Force. To ensure that ownership issues are resolved, significant development work related to AASHTOWare products and enhancement requests utilizing service units should be reviewed by the Task Force prior to the work being performed. The use of Service Units to perform modifications that change AASHTO product source code must be reviewed and approved by the Task Force. Service units may not be used to provide reimbursement for travel expenses by agency personnel.

Fee for Service Units

This service is offered and can be ordered in unit increments of \$11,600, which cannot be prorated and shall be paid upon receipt of the invoice. This fee includes the AASHTO administrative costs. Each service unit provides \$10,000 in contractor services.

Additional Funding for Development/Enhancement Items

The AASHTOWare Bridge Task Force recognizes that some member agencies might desire certain additional development or may desire to accelerate development of an AASHTOWare Bridge Management optional component(s), and may be in a position to fund such development. In fact, the practice of individual and/or groups of member agencies funding

specific development/enhancement work through AASHTO's contracts with its software service providers has long been an acceptable means of accomplishing such work.

Process for Funding Additional Enhancements

Any member department, or group of member departments that desires to fund development/enhancement work for one or more AASHTOWare Bridge Management modules that will not be addressed in our current work plan(s) should follow the process outlined below:

- Submit a request to the AASHTOWare Bridge Task Force describing the desired enhancement(s). This request should also indicate which member departments are considering or are prepared to fund the additional enhancement work, as well as an indication of how incorporating the desired enhancement will benefit the AASHTO community of users as a whole.
- If the desired enhancement is acceptable to the Task Force, the Task Force will direct the AASHTOWare Bridge Management Contractor to develop system requirements, cost estimate, i.e., work plan for the specific enhancement(s) and notify the requesting agency(ies) of the direction. If the desired enhancement is not accepted by the Task Force, the Task Force will provide the requesting agencies with their specific areas of concern.
- Based upon the work plan developed by the AASHTOWare Management Contractor, the requesting member agency or agencies will be notified of the total cost to accomplish the desired enhancement activity.
- The requesting agency or agencies should submit written funding commitment to AASHTO, attention AASHTOWare Bridge Project Manager, along with instructions for billing, i.e., individual and address to send appropriate invoice(s).
- Upon receipt of sufficient commitment(s) for funding, AASHTO will initiate the process for a new contract for approval and/or initiate a contract modification to incorporate the approved enhancement activities.

Introduction

The 1993 AASHTO Guide for the Design of Pavement Structures (and previous versions) is one of the primary documents used by state highway agencies for designing new and rehabilitated pavements. The basis of this design has been the empirical equations developed from the AASHO Road Test. The AASHO Road Test was conducted from 1958 to 1960 using limited pavement sections and modest traffic levels as compared to those used today.

In 1996, to achieve a state-of-the-practice pavement design procedure, the AASHTO Joint Task Force on Pavements sponsored the development of a mechanistic-empirical design guide for new and rehabilitated pavements, through the National Cooperative Highway Research Program (NCHRP). In 2004, NCHRP 1-37A was completed and delivered a mechanistic-empirical pavement design guide and accompanying software.

The products developed under NCHRP 1-37A have provided advancements in pavement design practices and work is continuing under NCHRP, FHWA and various state agencies.

AASHTOWare Pavement ME Design

AASHTOWare Pavement ME Design is the next generation of pavement design software, that builds upon the AASHTO mechanistic-empirical pavement design guide manual of practice, expands, and improves the features of the original prototype computational software. AASHTOWare Pavement ME Design is a production-ready software tool to support the day-to-day operations of public and private pavement engineers.

AASHTOWare Pavement ME Design calculates pavement responses (stresses, strains, and deflections) based on traffic, climate, and materials parameters to predict the progression of key pavement distresses and smoothness loss over time for asphalt and concrete pavements. These outputs are the basis for checking the adequacy of a trial design. AASHTOWare Pavement ME Design is a powerful program that incorporates a user-friendly interface with several functional, stability, and performance enhancements, such as improved runtime, automatic update notification, SI version, inclusion of highway capacity limits, climate data viewers and climate summaries, batch processing, multi-project editing, project compare tool, error checking for individual inputs and forms, provisions for sensitivity analysis, thickness optimization, ability to import backcalculation data, database functionality at enterprise and workstation level, a structural response query tool, and improved reporting. For many pavement engineers, it is a paradigm shift away from a nomograph-based design to one based on engineering principles and mechanics. Instead of entering basic site and project information into an equation and getting an empirically based pavement design output, the engineer can use detailed traffic, materials, and environmental information to assess the short and long-term performance of a pavement design using models calibrated nationally, locally, or a combination.

This software is a comprehensive pavement design and analysis tool, capable of providing support and insights to highway decision-makers, academia, and consultants. This state-of-the-practice tool represents the current advancements in pavement design. It also provides tools to optimize pavement designs based on given requirements allowing the user to evaluate and fine-tune the design. The database utility allows users to save final designs as well as individual input parameters such that these can subsequently be used for future designs, various distress and performance analyses, and for other management purposes.

AASHTOWare Pavement ME Design reflects a change in the methods and procedures engineers use to design pavement structures. It takes advantage of the advances in material mechanics, axle-load spectra, and climate data for predicting pavement performance. While this software does not answer all the challenges of pavement design, it is a quantum leap forward from previous pavement design procedures and facilitates future development in pavement modeling and analysis.

Pavement ME Design Tools

Pavement ME Design includes several tools to assist the pavement engineer:

1. Calibration Assistance Tool helps with local calibration efforts so the user can determine whether there is any bias in the predictions; establish the cause of any bias if found through the calibration process; and optimize the calibration coefficient of the transfer function(s) for each distress to eliminate bias and minimize the standard error of the estimate. **This tool is included in the PMED enterprise subscription and cannot be subscribed to separately.**
2. The AASHTOWare Backcalculation Tool (BcT) generates backcalculation inputs from falling weight deflectometer (FWD) data to the AAASHTO Pavement ME Design software for rehabilitation design. The tool can analyze raw deflection data files from three FWD testing devices: Dynatest®, JILS and KUAB. The tool provides three major functions: pre-processing deflection data (including project segmentation), backcalculation, and post-processing of results to generate inputs for Pavement ME rehabilitation design. This tool uses the EVERCALC® algorithm for the iterative backcalculation process. **This tool is included in the PMED enterprise subscription and may also be subscribed to separately.**
3. DRIP performs hydraulic design computations for the subsurface drainage analysis of pavements. This is a free tool.
4. XML Validator checks for most of the errors present in the xml files. It can also check for recommended ranges for data values. This is a free tool.
5. MapME creates ME Design project files (DGPX) seeded with geospatially referenced information relevant to the analysis and design of your pavement. This is a free tool.
6. API Tools (related to the JULEA and ICM analyses). These are free tools.
7. RePave Scoping Tool provides guidance for deciding where and under what conditions to use existing pavement as part of roadway renewal projects. This is a free tool.

Hardware and Software Environments

System Requirements

Hardware Requirements	
Machine	Minimum: 1.9GHz clock speed processor Recommended: dual processor
Memory	Minimum: 2GB of RAM Recommended: 4GB RAM or more
Monitor	Monochrome or color (preferred) monitor with display adapter supported by Windows® Minimum: 1024 x 768; Recommended: 1600 x 1200
Video Card	VGA or higher resolution graphics card
Hard Disk	Minimum: 500 MB free hard disk space Recommended: 5GB free hard disk space (for project files).
Mouse	Microsoft or compatible mouse
Disk Drives	Optional
Printer	A printer supported by Windows® (optional)

Software Requirements	
Operating System (32 or 64-bit)	Windows 10
Database	MS SQL Server 2005+ Oracle 10g+
Browser	Internet Explorer 7.0+ Edge v88.0.705.81 Firefox 3.5+ Google Chrome
Spreadsheet	Excel 2016+
Library	Microsoft .NET Core 6.0

Current Annual Fees and Licensing Options

AASHTOWare Pavement ME Design services are available for subscription to agencies with membership or associate membership in AASHTO and to other entities located in the United States. Each subscriber shall designate a primary contact person through whom all support and maintenance will be coordinated with the contractor support team.

Subscription Service (V3.0)

Subscriptions provide access to the PMED enterprise web services and desktop application. All PMED subscription services are provided through AASHTO in a multi-tenant cloud environment. The web service is available for PMED versions 3 and higher, while the desktop application is for earlier versions of the software.

Purchasing this subscription provides access to the entire PMED suite of tools (see Pavement ME Design Tools section), including the main PMED web application. Costs are dependent on the number of user seats desired by the agency. The number of users that may access the PMED subscription services at a time is limited by the number of seats purchased by the agency. Agencies may register any number of users for the web service.

Description	Annual License Fee
Subscription service—1 concurrent seat	\$9,400
Subscription service—9 concurrent seats	\$38,250
Subscription service—14 concurrent seats	\$56,550
Subscription service—20 concurrent seats ¹	\$75,900

¹ Purchasers of the subscription service for up to 20 concurrent seats will have an option to increase the number of concurrent seats for \$2,700 each.

Agencies choosing to license the subscription version of the software will be provided with a number of concurrent user seats based on their purchase and will also have an equivalent number of desktop workstation licenses available to them for use in the desktop application. Agencies utilizing a site license for the desktop application will continue to have access to the site license service.

Backcalculation Tool

The Pavement ME Deflection Data Analysis and Backcalculation Tool is a standalone software program that can be used to generate backcalculation inputs from Falling Weight Deflectometer (FWD) files to the AASHTOWare Pavement ME Design software for rehabilitation design. The tool is capable of analyzing raw deflection data files from three FWD testing devices: Dynatest®, JILS and KUAB. The tool provides three major functions: pre-processing deflection data

(including project segmentation), backcalculation, and post-processing of results to generate inputs for Pavement ME rehabilitation design. This tool uses the EVERCALC® algorithm for the iterative backcalculation process.

Although the tool is included with the Pavement ME Design software, it can also be licensed separately and used as a stand-alone single user application. A training presentation is available at <http://me-design.com/MEDesign/Webinars.html>.

Description	Annual License Fee
Standalone Single-User Backcalculation Tool	\$1,500

There is no evaluation or educational version for the backcalculation tool.

International License

AASHTOWare Pavement ME Design is available for licensing to entities located outside the United States and that do not have membership in AASHTO. These international entities must license through Applied Research Associates, Inc. (ARA), ARA can be reached at:

Applied Research Associates, Inc.
100 Trade Centre Drive, Suite 200
Champaign, IL 61820
(217) 356-4500
Fax: (217) 356-3088

Educational Option

This is a no-cost version of the AASHTOWare Pavement ME Design software that is modified for use by educational institutions within the jurisdictions of our Member Departments, and/or Associate Members for teaching purposes in the classroom only. This option is not available to individuals and it is not to be used for research, graduate work, or any other purpose.

The no-cost educational version differs from the full version as follows:

- Limited design types—new asphalt and concrete (JPCP and CRCP), and asphalt and concrete overlays;
- Limited analysis period: 30 years;
- Limited climate stations: 8 to 10 stations from around the country representing each climate zone;
- No batch mode or sensitivity analysis;
- Output reports (DOCX and XLSX) include the watermark text “Educational Version.” and
- No access to intermediate output files.

Note: A licensing agreement executed by the institution assuring compliance with the education and training limitation is necessary to exercise the educational license option. The license agreement is between the institution and AASHTO.

Implementation Assistance & Training

Implementation Assistance

The purpose of this catalog bundle is to provide agencies with implementation assistance to start using the Pavement ME Design (PMED) software. The scope of the work for this bundle is customizable to accommodate agency specific needs. The scope of the work can include:

- Review agency pavement design, distress data collection, and lab/field testing practices
- Establish input estimation procedures, default values for missing data
- Identify obstacles and information gaps

- Define procedures for developing input libraries for design
- Review compatibility of available data with respect to PMED
 - Develop agency specific roadmap or implementation plan which includes the following:
 - Develop agency specific verification and/or local calibration plan
 - Prepare preliminary PMED user guide
 - Provide guidance for performing concurrent designs

Description	Fee
Implementation Assistance	\$54,000 (4 service units)

Pavement ME Application Training—1

The workshop provides three days of on-site training for the PMED software application. The focus of the workshop is to provide users with an introduction to the AASHTOWare PMED software for flexible and rigid pavements design. The workshop topics include:

- Overview of PMED user interface components including design strategies, input requirements, review of outputs, and commonly used software features.
- Detailed overview of flexible and rigid pavement design strategies using examples for new and rehabilitation designs

Workshop Requirements:

- Experience level:
 - First-time users
 - Users needing a refresher of software usage
- Limited to 30 attendees

Description	Fee
Pavement ME Application Training—1	\$27,000 (2 service units)

Pavement ME Application Training—2

The workshop builds upon the “Pavement ME Application Training—1” course and provides in-depth hands-on training for experienced users of the PMED application. The course materials and examples are customized to reflect local design practices. The workshop topics can include examples for designing atypical or non-standard designs, using the different tools and features included in the software such as thickness optimization, sensitivity analysis, Backcalculation Tool (BcT), MapME, and the Calibration Assistance Tool (CAT). The contractor will contact the agency to finalize the workshop scheduling, examples, and agenda.

Workshop Requirements:

- Completion of PMED application training—1 or equivalent
- Experience level:
 - Experienced PMED users
- Limited to 30 attendees

Description	Fee
Pavement ME Application Training—2	\$27,000 (2 service units)

Service Units

For the period from July 1, 2024 through June 30, 2025, AASHTO has established an arrangement with the AASHTOWare Pavement ME Design contractor, ARA, to offer the opportunity for agencies to acquire special fixed-fee increments or units of contractor-provided service for consultation and support to assist the agency in preparing data and using AASHTOWare Pavement ME Design. During this period, an agency may commit to one or more units of service from ARA. The fee for each unit of service provides approximately sixty-five (65) total hours of labor by the contractor. Related travel expenses for on-site tasks will be converted to equivalent service units. The actual number of hours may vary depending on the AASHTO billing level of the employees involved. Service Units remaining at the conclusion of a fiscal year will be carried forward into the next fiscal year. The number of Service Units carried forward will be adjusted to reflect the subsequent year's price per unit, but the dollar value of the licensee's Service Units available will remain the same.

Service Unit Work Plan Development

The service unit contractor (Applied Research Associates, Inc.) is an independent contractor and solely responsible for all aspects of the performance, delivery, quality and terms and conditions of service they provide to agencies.

AASHTO SHALL NOT BE RESPONSIBLE AND DISCLAIMS ANY AND ALL LIABILITY FOR ANY DAMAGE OR LOSS WHATSOEVER, INCLUDING PERSONAL INJURY, DAMAGE TO PROPERTY, OR LOSS OF BUSINESS OPERATIONS, INFORMATION OR DATA, ARISING OUT OF OR RELATING TO ANY ACT OR OMISSION OF SERVICE UNIT CONTRACTORS, THEIR EMPLOYEES, AGENTS AND SUBCONTRACTORS.

It is highly recommended that each agency review its service needs with the AASHTOWare Pavement ME Design contractor, develop a firm estimate of the number of units required and establish work plans and other terms and conditions of service, including the schedule for delivery, prior to submitting their commitment. Further, the AASHTOWare Pavement ME Design Task Force reserves the right to review work plans for Service Unit work to ensure conformance with the guidelines for their use.

This service is not a pre-requisite to license AASHTOWare Pavement ME Design, nor does it affect in any way the support, maintenance and enhancement services provided under the AASHTO license agreement and license fee structure for AASHTOWare Pavement ME Design. Choosing this special offering is strictly the prerogative of the agency. The intent of Service Units is to offer the opportunity for an agency to acquire special fixed-fee increments or units of contractor-provided service for consultation and support. AASHTO shall serve as facilitator only by accepting the commitment for such contractor-provided services, invoicing and receiving payment on behalf of the agency and forwarding the order and payment to the contractor for the appropriate number of units of services ordered.

Further, AASHTO assumes no responsibility or liability for any obligation of Service Unit Contractors, including scheduling or delivery of such units of service. It shall remain the responsibility of the subscribing agency to schedule their individual unit(s) of service and establish any other terms and conditions directly with the contractor.

Service Unit Work Options

Service units are intended to provide consultation and support to assist the licensee in the implementation of the AASHTOWare Pavement ME Design and may include the following types of activities, or work by Applied Research Associates, Inc.

- Setting language preferences
- Tool tip help
- User defined field names
- Local calibration settings
- Input field locking
- Setting agency-specific default values and ranges

- Loading user defined weather data
- Converting prior versions of user projects to AASHTOWare Pavement ME Design file formats
- Creating custom batch reports
- Specialized training in the use of AASHTOWare Pavement ME Design.

Note: The contractor, ARA, will provide the instructors and workshop materials and will work with the agency to set up the training (software installation, etc.) within reason. All travel related costs for the instructors are also included in the fee. The sponsoring agency shall provide the facilities, hardware, and support for the training. The agency is also responsible for inviting the attendees and for their associated travel costs.

In general, Service Units should not be used for work involving major new software development by member agencies. Service Units may be converted to provide additional enhancement funding under the guidance of the Task Force.

To ensure that ownership issues are resolved, significant development work related to AASHTOWare products and enhancement requests utilizing service units should be reviewed by the Task Force prior to the work being performed. The use of Service Units to perform modifications that change AASHTO product source code must be reviewed and approved by the Task Force. Service units may not be used to provide reimbursement for travel expenses by agency personnel.

Fee for Service Units

This service is offered and can be ordered in unit increments of \$13,500, which cannot be prorated and shall be paid upon receipt of the invoice. This fee includes the AASHTO administrative costs. Each service unit provides \$12,200 in ARA contractor services.

Additional Funding for Development/Enhancement Items

The AASHTOWare Pavement ME Design Task Force recognizes that some member agencies may desire certain additional development or may desire to accelerate development of an AASHTOWare Pavement ME Design optional component(s), and may be in a position to fund such development. In fact, the practice of individual and/or groups of member agencies funding specific development/enhancement work through AASHTO's contracts with its software service providers has long been an acceptable means of accomplishing such work.

Process for Funding Additional Enhancements

Any member department, or group of member departments that desires to fund development/enhancement work for one or more AASHTOWare Pavement ME Design modules that will not be addressed in current work plan(s) should follow the process outlined below:

- Submit a request to the AASHTOWare Pavement ME Design Task Force and Project Manager describing the desired enhancement(s). This request should also indicate which member departments are considering or are prepared to fund the additional enhancement work, as well as an indication of how incorporating the desired enhancement will benefit the AASHTO community of users as a whole.
- If the desired enhancement is acceptable to the Task Force, the Task Force will direct the AASHTOWare Pavement ME Design Contractor to develop system requirements, cost estimate, and work plan for the specific enhancement(s) and notify the requesting agency(ies) of the direction. If the desired enhancement is not accepted by the Task Force, the Task Force will provide the requesting agencies with their specific areas of concern.
- Based upon the work plan developed by the AASHTOWare Pavement ME Design Contractor, the requesting member agency or agencies will be notified of the total cost to accomplish the desired enhancement activity.
- The requesting agency or agencies should submit written funding commitment to AASHTO, attention AASHTOWare Pavement ME Design Project Manager, along with instructions for billing, i.e. individual and address to send appropriate invoice(s).
- Upon receipt of sufficient commitment(s) for funding, AASHTO will initiate the process to initiate a new contract or to approve and execute a contract modification to incorporate the approved enhancement activities.

Introduction

AASHTOWare Safety is a Software as a Service (SaaS) platform specifically designed to meet the unique needs of state and local transportation agencies in the area of highway traffic safety management. The AASHTOWare Safety platform begins by ingesting, cleansing, and combining data to make it more meaningful and ready for analysis. The integrated Safety Data Warehouse that the platform is built upon, houses all the necessary data and translates it into language humans naturally understand, resulting in a refreshingly easy, intuitive search experience.

As defined by the Highway Safety Manual, there are six steps in the Roadway Highway Safety Management Process:

1. Network Screening,
2. Diagnosis,
3. Countermeasure Selection,
4. Economic Appraisal,
5. Project Prioritization, and
6. Safety Effectiveness Evaluation.

By facilitating the data unification and manipulation process, the AASHTOWare Safety platform provides automated insights that allow agencies to make better decisions faster, with a higher degree of confidence.

The AASHTOWare Safety platform software consists of the following four (4) product offerings:

- AASHTOWare Safety Segment Analytics
- AASHTOWare Safety Intersection Analytics
- AASHTOWare Safety Trend Analytics
- AASHTOWare Safety Alternative Design

AASHTOWare Safety Segment Analytics

AASHTOWare Safety Segment Analytics is a cloud-based SaaS platform that connects to external databases to receive crash, vehicle and occupant data, roadway data, asset data, as well as any other data supplied by the licensing agency, to power a number of purpose-built applications. Agencies can customize various configurations (countermeasure logic, Crash Modification Factor (CMF) values, and various calculations) to meet their unique needs. AASHTOWare's Safety Segment Analytics provides analysis based on data for roadway segments.

AASHTOWare Safety Segment Analytics includes five (5) modules:

1. **Crash Query**—The Crash Query application allows users to create custom queries to search crashes in a GIS interface. A number of search variables, including crash type, vehicle, occupant, roadway, or geographic criteria, can be used to refine queries in natural-language search terms. Users can explore crash details, including recommended countermeasures, to help with crash mitigation. Crash Query can generate shareable PDF Crash Reports with the click of a button.
2. **Safety Analysis**—The Safety Analysis application allows users to conduct segment-specific analysis to see where crashes are occurring and what countermeasures can be put in place to minimize crashes. Safety Analysis allows users to generate benefit-cost calculations in seconds with built-in service life and CMF values. Safety Analysis will also generate a shareable PDF Safety Report with the click of a button, complete with recommendations or specified treatments. Users can easily generate a Safety Report on every project and at every phase of the project.
3. **Network Screening**—The Network Screening application empowers users to utilize Segment and Sliding Window screening methods, with various Historical, Predictive, and Expected performance measures following HSM best-practices with just the click of a button. Custom filters can be applied to refine the scope of your screening, targeting regions, counties, cities, or even custom geographic areas. The module also allows filtering by contributing

factors, or even potential countermeasures to help agencies determine which roadways need the most attention. With the click of a button, users can generate a shareable Network Screening report to share this data with anyone internal or external to the users' agency.

4. **Predictive Analysis**—Predictive Analysis is key to understanding Predicted and Expected performance measures, which give agencies insight into how their roadways are performing. Agencies can use Safety Performance Functions (SPFs) that they have already created to run their screenings. Alternatively, Predictive Analysis can create custom SPFs for an agency. In addition to creating/saving SPFs, Predictive Analysis provides a history of the functions that can help provide analysis for how SPFs are performing.
5. **Crash Tree Diagrams**—Crash Tree Diagrams allow users, especially those unfamiliar with crash data, to create a visual representation of crash data to help identify and evaluate key crash types, and key facility types across a given location.

Additionally, each application includes a connection to external data sources, as well as built-in data warehouse functionality, which enables the “joining” and transformation of various datasets that power AASHTOWare Safety Segment Analytics.

AASHTOWare Safety Intersection Analytics

AASHTOWare Safety Intersection Analytics builds on the segment-level data made available under the applications included in AASHTOWare Safety Segment Analytics. With the addition of AASHTOWare Safety Intersection Analytics, each application can be configured to incorporate intersection data as well. This tool provides valuable insight into intersection-related crashes, safety improvements, and network screening analyses.

AASHTOWare Safety Intersection Analytics adds Intersection-related data and analyses for the following five (5) modules:

1. **Crash Query**—With the addition of intersection data to Crash Query, users can query, explore, and generate intersection-related crash and vehicle level data, as well as generate crash summary and comparison reports with the click of a button.
2. **Safety Analysis: Safety Analysis**—Intersections allows users to conduct corridor analysis, which includes both segment and intersection analysis. The intersection-specific analysis allows users to see what crashes are occurring, and what intersection-specific countermeasures can be put in place to minimize intersection crashes. Users can generate benefit-cost calculations in seconds with built-in service life and CMF values. Safety Analysis will also generate a shareable PDF Safety Report with the click of a button, complete with recommendations or specified treatments, which allows users to easily generate a Safety Report on every project and at every phase of the project.
3. **Network Screening: Network Screening**—Intersections empowers users to utilize Intersection and Ramp screening methods with various Historical, Predictive, and Expected performance measures following HSM best practices with just the click of a button. Apply custom filters to refine the scope of your screening, targeting regions, counties, cities, or even custom geographic areas. Filter by contributing factors, or even potential countermeasures, to help your organization determine what intersections need the most attention. Generate a shareable Network Screening report with the click of a button, to share this data with anyone inside or outside your organization.
4. **Predictive Analysis-Intersections**—With Predictive Analysis—Intersections, agencies can use SPFs that they have already created to run their analysis. Alternatively, Predictive Analysis can create custom SPFs for an agency. In addition to creating/saving SPFs, Predictive Analysis provides a history of the functions that can help provide analysis for how SPFs are performing. By providing Predicted and Expected performance measures, Predictive Analysis - Intersections can provide agencies with insight into how their intersections are performing
5. **Collision Diagrams**—The Collision Diagrams application allows users to generate collision diagrams for intersections utilizing the available crash and vehicle data. Users can use the Collision Diagrams application to view trends and problem areas for an intersection, details of each crash, review the crash narrative and even edit the crash data to more accurately reflect the crash narrative. Users can easily generate an intersection report with the click of a button to share this data with anyone inside or outside their organization.

AASHTOWare Safety Trend Analytics

AASHTOWare Safety Trend Analytics allows users to create custom dashboards to visualize any element of their data in an easy-to-use and easy-to-share format. Users can create secure custom dashboards to share data within their organization. Agencies can also create publicly available dashboards to share data through public portals, with a public-facing URL allowing for open access to any desired dashboard, with no user limit or authentication required.

AASHTOWare Safety Trend Analytics provides custom dashboard creation and sharing through the following two (2) modules:

1. **Dashboards**—The Dashboards application provides users with a full business intelligence platform. The Dashboards application utilizes the roadway, crash, and safety data present in the other AASHTOWare Safety offerings, allowing users to generate and share custom Dashboards to visualize their agency's roadway safety data. This robust data visualization platform can also be used to generate custom, exportable PDF reports to share data with internal, or external stakeholders.
2. **Public Portals**—The public portals feature of the Dashboards application allows agencies to create custom dashboards and share data and custom charts with key external stakeholders or the public at-large through a public-facing URL.

AASHTOWare Safety Alternative Design

AASHTOWare Safety Alternative Design enables designers, planners, and safety engineers, to run Part C calculations found in the Highway Safety Manual, replacing the IHSDM. Alternative Design calculates the safety improvements made by designers, planners, and safety engineers, through changes made to roadway characteristics including lighting, shoulder size, lane width, etc. AASHTOWare Safety Alternative Design produces reports that demonstrate comparisons between multiple proposals for metrics such as crash reductions and benefit-cost ratios.

The AASHTOWare Safety Alternative Design application includes predictive methods for:

- Rural Two-Lane, Two-Way Roads
- Rural Multilane Highways
- Urban and Suburban Arterials
- Freeways, Interchange Ramps, and Interchange Terminals
- Additionally, AASHTOWare Safety Alternative Design customers will receive ongoing updates for newly developed calculations, including the forthcoming *Highway Safety Manual Version 2 Part C*, which includes bike and pedestrian modules.

AASHTOWare Safety Alternative Design is meant to be used by users of all abilities, including those not familiar with safety data. This approach enables planners and designers to include safety evaluations in the initial stages of the project. This ability not only helps state agencies fulfill federal requirements but also allows for safety to be considered on every project, without slowing down the project's velocity.

User Support

All support for AASHTOWare Safety software is provided through a partnership agreement between AASHTO and the owner and developer of the AASHTOWare Safety software platform, Numetric, Inc.

User Support is provided for licensed AASHTOWare Safety platform users through an in-app chat feature, which allows users to chat in real-time with support personnel during standard business hours.

Additional support is provided through various online help resources support.numetric.com and through email support@numetric.com.

Data Requirements

The AASHTOWare Safety platform utilizes data from various data sources including crash, vehicle, occupant, and roadway data. Data from existing databases maintained by the agency is supplied to AASHTO's partner, Numetric, Inc. who will conduct Extract, Transform and Load (ETL) processes to cleanse, unify, and manage the data inputs for use in the AASHTOWare Safety platform.

Data varies from agency to agency, and available data will continue to evolve and expand. The data needs for the AASHTOWare Safety platform are divided into three general categories: configuration data, required data, and supplemental data.

Configuration Data

The purchasing agency will be provided with a number of default data values, which can be customized to meet the specific needs of that agency. These configurable data points can be customized at any point:

- **Countermeasure Logic:** AASHTOWare Safety analyzes crash data, and roadway data to recommend treatments that mitigate crashes based on countermeasure logic. Numetric will load a default set of Countermeasure Logic based on FHWA's Proven Countermeasures that Work. Countermeasure Logic is required for use of the Safety Analysis application and provides additional value to the Network Screening and Crash Query applications.
- **CMF Values:** CMF Values are used in conjunction with various calculations to estimate the effectiveness of a particular safety treatment. CMF Values are required for the use of the Safety Analysis application.
- **Cost Defaults:** The cost defaults pertain to each type of crash severity, or type of crash. These cost defaults are critical when calculating the benefit and benefit-cost equations across a segment of road or intersection, as well as various other calculations throughout the AASHTOWare Safety platform. The cost defaults are utilized in the Crash Query, Network Screening, and Safety Analysis applications.
- **SPF Values:** SPF Values are associated with specific segment or intersection types based on roadway characteristics. If no state-specific SPF values are available, custom SPFs can be generated using the Optimal Fit function within the Predictive Analysis application to generate state-specific SPFs based on historical crash data for the desired segment and/or intersection groupings. SPF values are utilized in the Predictive Analysis, and Network Screening Applications.

Required Data

The following datapoints are required for the use of AASHTOWare Safety. Generally, these datapoints are housed in two data sources: **Crash records, and roadway data.**

- **Crash Data:** Crash Data is the foundation of AASHTOWare Safety. This Crash Data is combined with the Roadway Data and LRS data to map crash locations across the AASHTOWare Safety platform. While Crash Data is required for all applications, Vehicle Level data is required for some functionality within AASHTOWare Safety, such as Collision Diagrams. Crash Data is utilized in every AASHTOWare Safety application.
- **Roadway Data:** Roadway attribute and asset data are used to display the current state of roadways across the state. When combined with Crash Data, Roadway Data helps users identify crash patterns, high crash locations, and areas for potential improvement. Roadway data is also used to inform countermeasure recommendations, and is central to all Network Screenings, as well as Predictive Analysis. Roadway Data is utilized in every AASHTOWare Safety application. Linear Referencing System (LRS): The LRS is used to spatially identify the locations of roadways, perform sliding window analyses, or create alternative designs. AASHTOWare Safety utilizes state-provided LRS. The LRS is utilized in every AASHTOWare Safety application.

Supplemental Data

The AASHTOWare Safety platform is capable of supporting most other Crash, Roadway, or other roadway safety data that can be provided. Any additional data provided will provide further depth of analysis and additional filtering capabilities to the AASHTOWare Safety applications.

The following represent commonly recommended supplemental data. However, any relevant data points provided can be incorporated into the AASHTOWare Safety platform.

- **Supplemental Crash, Vehicle, and Person Data:** While a limited set of Crash and Vehicle Data is required in order to configure AASHTOWare Safety, any Crash, Vehicle, or Person data value can be loaded into AASHTOWare Safety, and utilized across all applications. Additional Crash data, such as crash reports, narratives, officer collision diagrams, etc. can be displayed in the AASHTOWare Safety applications.
- **Supplemental Roadway Data:** Any additional roadway data provided can be displayed in AASHTOWare Safety, such as Asset data, roadway geometry, MIRE data, or any other related data value can be loaded into AASHTOWare Safety and utilized across all applications.
- **Geographic Data:** Geographic data, such as City, County, and District boundaries, school boundaries, MPO boundaries, or any other geographic data point can be loaded into AASHTOWare Safety and utilized across all applications.

For a more detailed list of data requirements, please contact AASHTOWare.

Hardware and Software Environments

The entire AASHTOWare Safety platform is delivered to end-users through a cloud-based web Software-as-a-service (SaaS) application. Because the AASHTOWare Safety applications are cloud-based, hardware and software requirements are minimal, and the applications are not installed locally. All elements of the platform can be accessed from any computer with an up-to-date web browser, including the latest versions of Chrome, Firefox, Safari, and Edge.

Current Annual Fees and Licensing Options

Safety Groups

Annual License Fees are broken into Safety Groups. Safety Groups are determined by a combination of population and roadway miles as follows:

Safety Group #	State Agencies within Safety Group
Safety Group 1	Alaska, District of Columbia, Delaware, Hawaii, Maine, North Dakota, New Hampshire, Rhode Island, South Dakota, Vermont, Wyoming Note: Additionally, states from Safety Groups 2 or 3 can purchase a limited scope deployment at Safety Group 1 pricing. Contact AASHTOWare for more information regarding this limited scope deployment.
Safety Group 2	Alabama, Arkansas, Arizona, Colorado, Connecticut, Georgia, Iowa, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Massachusetts, Maryland, Michigan, Minnesota, Missouri, Mississippi, Montana, Nebraska, Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Puerto Rico, South Carolina, Tennessee, Utah, Virginia, Washington, West Virginia, Wisconsin
Safety Group 3	California, Florida, Texas

Annual Fees

Group	Annual License Fee			
	AASHTOWare Safety Segment Analytics	AASHTOWare Safety Intersection Analytics	AASHTOWare Safety Trends Analytics	AASHTOWare Safety Alternative Design
Safety Group 1	\$100,000	\$100,000	\$50,000	\$50,000
Safety Group 2	\$175,000	\$175,000	\$100,000	\$100,000
Safety Group 3	\$350,000	\$350,000	\$200,000	\$200,000

AASHTOWare Safety Segment Analytics

This license fee shown in the Annual Fee table allows the use of the AASHTOWare Safety Segment Analytics with an unlimited number of users within an agency, as well as access for any third-party contractors, consultants, or outside parties identified by the purchasing agency.

Purchase of AASHTOWare Safety Segment Analytics includes access to segment data in the following applications: Crash Query, Safety Analysis, Network Screening, Predictive Analysis, and Crash Tree Diagrams.

AASHTOWare Safety Intersection Analytics

This license fee shown in the Annual Fee table provides agencies who have already purchased AASHTOWare Safety Segment Analytics with the addition of intersection capabilities. As with Safety Segment Analytics, the purchase of Safety Intersections Analytics provides a license for an unlimited number of users within an agency, as well as access for third-party contractors, consultants, or outside parties identified by the purchasing agency.

AASHTOWare Safety Intersection Analytics provides additional intersection reporting, analysis, and querying for the following applications: Crash Query, Safety Analysis, Network Screening, Collision Diagrams, and Predictive Analysis.

AASHTOWare Safety Trend Analytics

This license fee shown in the Annual Fee table provides agencies who have already purchased AASHTOWare Safety Segments Analytics with the addition of the Trend application. As with Safety Segment Analytics, Safety Trend Analytics provides access to an unlimited number of users within an agency, as well as access for third-party contractors, consultants, or outside parties identified by the purchasing agency. Additionally, Safety Trend Analytics allows for the creation of public-facing dashboards through the public portals feature, allowing the public sharing of custom dashboards.

AASHTOWare Safety Trend Analytics includes the following applications: Dashboards, Public Portals.

AASHTOWare Safety Alternative Design

This license fee shown in the Annual Fee table allows the use of the AASHTOWare Safety Alternative Design with an unlimited number of users within an agency, as well as access for any third-party contractors, consultants, or outside parties identified by the purchasing agency.

AASHTOWare Safety Alternative Design includes the following application: Alternative Design.

AASHTOWare Safety Segment Analytics 90-Day Test Drive

The AASHTOWare Safety Segment Analytics Test Drive allows for an evaluation period of 90 days, which includes a specified geographic region (a single city, county, or region), and limited crash history (6 months–2 years) to be utilized for evaluation purposes. The AASHTOWare Safety Segment Analytics Test Drive provides access to an unlimited number of users within an agency for evaluation purposes only.

The AASHTOWare Safety Segment Analytics Test Drive includes access to segment data in the following applications: Crash Query, Safety Analysis, Network Screening, and Predictive Analysis.

Description	Annual License Fee
Safety Segments Analytics 90-Day Test Drive	\$0.00

AASHTOWare Safety Implementation/Service Units

The Implementation and Service Unit partner (Numetric, Inc.) is an AASHTOWare partner, and solely responsible for all aspects of the performance, delivery, quality and terms and conditions of service they provide to agencies. AASHTO SHALL NOT BE RESPONSIBLE AND DISCLAIMS ANY AND ALL LIABILITY FOR ANY DAMAGE OR LOSS WHATSOEVER, INCLUDING PERSONAL INJURY, DAMAGE TO PROPERTY, OR LOSS OF BUSINESS OPERATIONS, INFORMATION OR DATA, ARISING OUT OF OR RELATING TO ANY ACT OR OMISSION OF IMPLEMENTATION UNIT AND SERVICE UNIT PARTNERS, THEIR EMPLOYEES, AGENTS AND SUBCONTRACTORS

For work OTHER THAN implementation, it is highly recommended that each agency review its service needs with the AASHTOWare Safety partner (Numetric, Inc.), develop a firm estimate of the number of Service Units required, and establish work plans and other terms and conditions of service, including the schedule for delivery, prior to submitting their commitment. Further, AASHTOWare reserves the right to review work plans for Implementation and Service Unit work to ensure conformance with the guidelines for their use.

The intent of AASHTOWare Implementation and Service Units is to offer the opportunity for an agency to acquire special fixed-fee increments or units of partner-provided service for consultation and support. AASHTO shall serve as facilitator only by accepting the commitment for such partner-provided services, invoice and receive payment on behalf of the agency and forward the order and payment to the partner for the appropriate number of AASHTOWare Implementation or Service Units ordered. Further, AASHTO assumes no responsibility or liability for any obligation of AASHTOWare Implementation and Service Unit providers, including scheduling or delivery of such units. It shall remain the responsibility of the subscribing agency to schedule their individual AASHTOWare Implementation or Service Unit(s) and establish any other terms and conditions directly with the partner.

Implementation Units are required in the first year of licensing to address one-time costs associated with AASHTOWare Safety implementation. All AASHTOWare Safety modules, including Safety Segment Analytics, Safety Intersection Analytics, and Safety Trend Analytics, require the purchase of implementation units to cover the cost related to implementation activities.

Oversight of all AASHTOWare Safety implementation activities will be performed by a Numetric project manager, who will coordinate all related meetings, tasks, and schedules. Implementation activities also include data clean-up and connecting the agency's data sources, configuring the licensed applications, and providing end-user training. The project manager will conduct weekly meetings with the agency's project team to review the status of tasks, discuss design options, collect product feedback, and coordinate training. The implementation process ensures that agencies have an operational and functional set of applications that are correctly configured for each organization and a trained workforce to utilize the applications in their day-to-day operations.

An *estimated* number of AASHTOWare Implementation Units required is provided in the table below. Please note: Many factors can contribute to the level of effort required to successfully implement the software in an agency, and the cost and therefore the number of implementation units required, may vary from the estimated number of units provided in

the table below. *Each agency should discuss implementation activities directly with Numetric and obtain a proposal for implementation prior to ordering any AASHTOWare Safety software, so that an appropriate number of implementation units can be ordered through AASHTO.*

Group	Estimated Implementation Units Required One-time 1st Year			
	AASHTOWare Safety Segment Analytics	AASHTOWare Safety Intersection Analytics	AASHTOWare Safety Trend Analytics	AASHTOWare Safety Alternative Design
Safety Group 1	4	4	1	1
Safety Group 2	7	7	2	2
Safety Group 3	12	12	4	4

Fee for AASHTOWare Safety Implementation Units

The cost of implementation can be ordered in whole unit increments, each equal to \$25,000, which cannot be prorated and shall be paid upon receipt of the invoice. Many factors can contribute to the level of effort required to successfully implement the software in an agency, and the cost and the number of implementation units required, may vary from the estimated number of units provided in the table above. Each agency should discuss implementation activities directly with Numetric and obtain a proposal for implementation prior to ordering any AASHTOWare Safety software, so that an appropriate number of implementation units can be ordered through AASHTO.

Service Unit Work Options

These services provide for consultation and support to assist the agency with configurations of AASHTOWare Safety products which go beyond the initial implementation process

- Partnering to collect new datasets
- Creating processes for improving quality assurance

In general, Service Units should not be used for work involving major new software development by member agencies. Service Units may be converted to provide additional enhancement funding under the guidance of the Strategic Advisory Committee. To ensure that ownership issues are resolved, significant development work related to AASHTOWare products and enhancement requests utilizing service units should be reviewed by the Strategic Advisory Committee prior to the work being performed. The use of Service Units to perform modifications that change product source code must be reviewed and approved by the Strategic Advisory Committee. Service units may not be used to provide reimbursement for travel expenses by agency personnel.

Fee for AASHTOWare Safety Service Units

This service is offered and can be ordered in unit increments of \$10,000, which cannot be prorated and shall be paid upon receipt of the invoice.

Introduction

The AASHTOWare PermitRoute powered by ProMiles is a Software as a Service (SaaS) system specifically designed to meet the unique Oversize/Overweight permitting and routing needs of state and local transportation agencies.

All states have the authority per 23 CFR § 658 (h) to implement a program for permitting travel of vehicles that exceed federal size and weight limits for non-divisible vehicles or loads. The 2022 final rule of the National Bridge Inspection Standards (NBIS, 23 CFR§ 650 Subpart C) requires analysis for routine and special permit loads to ensure bridge safety. It is imperative that the agency provide safe routing for these vehicles in a way that protects the motoring public and the highway infrastructure. While not mandated in any way, it is expected that industry will be able to access the system 24/7 and self-issue permits within self-issue limits. The AASHTOWare PermitRoute has achieved self-issue limits as high as 90 percent for jurisdictions issuing many hundreds of thousands of permits per year.

AASHTOWare PermitRoute is a high visibility service provided for industry, and frequently commands attention from the highest level of state governments. The AASHTOWare PermitRoute powered by ProMiles is a proven solution for OS/OW permitting and routing that meets all federal guidelines. The system is available to the public and generally has tens of thousands of users each month. The AASHTOWare PermitRoute will be skinned to match the licensing agency's other systems to create cohesiveness across the agency. Each agency is also encouraged to officially name their customized system. Each state has a unique set of rules pertaining to OS/OW permitting and routing. The AASHTOWare PermitRoute will be configured and customized to meet all state specific rules and needs.

AASHTOWare PermitRoute Features

The AASHTOWare PermitRoute powered by ProMiles is a cloud-based SaaS system that provides OS/OW permitting and routing for a licensing agency. The system and its accompanying services provide a turn-key web application for providing OS/OW permitting and routing for the licensing agency. All needed configurations and integrations are provided by the AASHTOWare vendor to ensure that the system meets all OS/OW permitting and routing needs for as long as the licensing agency continues to license the system.

The system provides the following functionality:

- 1. System Administration and Configuration**—State laws allow for a large variety of general and special OS/OW permit types and rules. Many industries have special rules providing for the issuing of permits for their vehicles allowing for additional weight or size. The AASHTOWare PermitRoute is designed to implement a variety of permit types using configuration to the greatest extent possible. There are more than 100 settings that control all aspects of configuring permits including name, duration, dimensions, weight, self-issue limits, conditions, fees, and many others. The system utilizes XML templates to configure the locked PDF that makes up the permit. In addition to configuring the permit types, the system has extensive configuration capabilities. This allows agency administrative staff to change many items in the system including error messages, screen prompts, help text, statuses, queues, and workflows. User access is controlled by extensive permissions; therefore the least access security rule has been implemented for user's based on their role.
- 2. Account Setup and Maintenance**—All AASHTOWare PermitRoute systems provide carrier self-service account creation and maintenance functions. A carrier must create an account in the permitting and routing system before a permit can be ordered. A link is provided on the login page that allows carriers to create a new account. If the carrier has a USDOT Number, they enter that number, and the system validates the company against the federal SAFER database. Generally, the company name and address in the system will match the federal SAFER data. If the carrier is in good standing, they can create their account and then create logins for users associated to their account. If the carrier is not in good standing, the permit office reviews the account request and can either approve or deny the request for account creation. Carrier users can add, delete, and maintain any number of users for their account. Permit services can create accounts for carriers, if they are not already in the system, using the same process. The

system can be set up to require carriers to provide proof of insurance before the account has been set up if that is a requirement for the agency.

- 3. Submitting Permit Applications**—The AASHTOWare PermitRoute allows both carriers and state users to submit permit applications. The system uses intuitive screens to direct the carrier through the permit order process. The system is configured to only ask the user for the information needed for that specific permit type. For example, if the permit type does not require trailer information the system will not ask for trailer information. If the permit type requires routing, the system will display the route page asking for an origin, destination, and optional via-points, and will attempt to route the permit. The user can review the route on a map, as well as detailed driving direction customized for the agency. If the user is happy with the route, they can submit the application for processing. If the user is able to get a route, the account is approved for self-issue, the permit type allows for self-issue, and the permit does not exceed self-issue limits, the system will automatically approve the permit application. The carrier can then pay for the permit. Once the payment is processed, the system creates the permit as a locked PDF and automatically delivers it to the carrier via email or fax, allowing for immediate travel. If the permit is not self-issued, the application is submitted to the Permit Office for review and approval. Permits that are sent to the permit office for review are enqueued for processing. The permit office is able to configure the processing rules and queues to meet their needs. Carriers are able to view the submitted applications in the queue on the Carrier Dashboard and to see the steps for approval. Users are able to copy permits and save trips to facilitate their OS/OW permitting needs.
- 4. Routing and Restrictions**—Routing and OS/OW restrictions are the heart of any automated OS/OW permitting and routing system. The AASHTOWare PermitRoute has a proven routing engine that routes millions of permits each year and implements custom restrictions for more than 20 agencies. The routing engine is able to provide routes for any sized vehicle (based on applicable restrictions) and for any complexity of highway network. The routing engine takes into account that sometimes a route is not possible, due to OS/OW restrictions, and provides ways for the OS/OW Permit Office to obtain a route that will require restriction override approvals. The routing engine can provide multiple route options for users.

The base for routing is a complete routable GIS dataset for the state. This GIS dataset must be at the roadbed level and must include all connectors, flyovers, frontage roads, and other connecting roads. This dataset must be accurate and must include one-way flags, turn restrictions, highway signage, and highway numbers. Agencies can provide this base data if they have an accurate and routable GIS dataset of the entire state. As part of the configuration and customization process, ProMiles will validate this dataset and provide any missing data such as highway signage. If this dataset is not available, or if the agency prefers, ProMiles will provide a routable dataset using the Open Street Mapping (OSM) data. This is an accurate, publicly available, free dataset that has been used in many state OS/OW Permitting and Routing Systems. As with an agency provided source, ProMiles will validate and correct any errors in the dataset during the configuration and customization process.

After the base GIS dataset has been created, Oversize/Overweight restrictions must be applied to the GIS data for safe routing of OS/OW vehicles. These restrictions identify the sizes and weights of loads that can travel over specific road segments. Each restriction has non-GIS information such as a name, start and end date, owner, and conditions. These conditions describe identify the sizes and weights of loads that are affected by the restriction. Common conditions include height, width, weight, and length. Most states have specific restrictions for posted bridges, permit types, or other specific needs. In addition, each restriction has a set of road segments that the restriction applies to. ProMiles will build out the oversize/overweight restrictions based on information provided by the agency.

The final part of building out the routing data is identifying all road segments that are carried by bridges in the jurisdiction. This is used to identify those bridges that need to be load rated for heavy loads.

- 5. Load Rating**—Load rating heavy loads is a critical part of OS/OW permitting. Efficient and accurate load rating is necessary for efficient travel of these loads and to ensure protection of critical transportation infrastructure. The FHWA is requiring transportation agencies to perform effective load rating for heavy permit loads. The AASHTOWare PermitRoute integrates with all major load rating tools including AASHTOWare BrDR. Using these tools, and especially BrDR, the system is able to effectively and efficiently load rate heavy loads. This provides efficient routing and protects infrastructure. In addition to integrating with load rating tools, the system can implement capacity tables, moment comparison, and other simpler methods of load rating for those bridges where models are not possible or are not available.

6. **Map Display**—After a route has been created, it is displayed on a map for the user to review. The system displays the trip route on this map using a blue line. In addition to the trip line, restrictions, failed bridges, and available roads for travel are displayed as overlays and icons on the map. Most AASHTOWare PermitRoute systems use Google maps as the display base map. These maps provide the best user mapping experience. The license for Google maps is included in the annual maintenance for the system. If the agency wishes to provide alternate base maps for the system, those can be used instead.
7. **Search and Reporting**—The system includes extensive ad-hoc search functions for permits, carriers, and users. Users are able to search virtually all fields within the permit record and create reports based on the search. The system includes a number of standard reports that can be customized to meet the agency's requirements. Custom reports specific to the agency are included in configuration and customization of the system.
8. **Safety and Compliance**—Identifying non-compliant carriers is an essential part of safe OS/OW permitting. The AASHTOWare PermitRoute integrates with state and federal systems including CVIEW, SAFER, and PRISM to identify carriers that are out of service. The system can implement integrations with state specific compliance systems to ensure that permits are not issued to carriers with state specific compliance issues. The system supports integration allowing enforcement systems to obtain information about permits and carriers. This has been used for roadside enforcement, weigh in motion, and carrier audits.
9. **Payment and Accounting**—The AASHTOWare PermitRoute can integrate with virtually any payment processor to collect funds for OS/OW permits. The system utilizes a shopping cart for customer convenience. At no time does the system collect credit card information. The system can be configured or customized to implement any business rules for permit fees, mile and weight taxes, and other charges and can record payments in any number of funds. The system includes an integrated escrow system allowing carriers to deposit money into their account and purchase permits against their escrow account. The system includes a number of accounting reports that can be customized to meet the agency's needs.
10. **In-Cab Navigation**—The AASHTOWare PermitRoute includes a free app that can be downloaded by the driver to access routed permits directly from the system. The app will display the blue route line on the map, as well as audibly speak the driving directions. This helps drivers follow the complicated routes sometimes needed to avoid restrictions, thus facilitating safety.
11. **Additional Service for Carriers**—The AASHTOWare PermitRoute includes integration capabilities allowing carriers to submit applications to the system and retrieve information about routes to use within the carrier's IT system. This feature can be turned on or off at the agency's discretion.

AASHTOWare PermitRoute Configuration and Customization

Each state's permitting environment is different. State laws provide for a dizzying number of permit types and rules. The highway infrastructure varies based on the location and age of the infrastructure, and the restriction environment varies for each state. Each state has different bridge inventory systems, payment processors, SSO, bridge analysis, travel alerts, and accounting systems. In order to ensure that the system is turn-key and fully meets the Agency's OS/OW permitting and routing needs, ProMiles provides extensive configuration and customization support. The following are areas where configuration and customization is provided:

1. **GIS and Restrictions**—ProMiles will utilize the GIS data of the agency's choosing and validate the data to ensure it is current and accurate. ProMiles will populate all OS/OW restrictions on the agency's routable network and ensure the accuracy of this data. ProMiles will, if applicable, apply the agency's LRS to the routable network if the network comes from another source. ProMiles will identify all road segments that are carried by bridges that need to be rated on the agency's routable network and validate the data.
2. **Bridge Analysis**—ProMiles will implement load rating provided by the agency. This includes integration with load rating tools such as the AASHTOWare BrDR and implementation of moment comparison, capacity tables, weight charts, or other bridge analysis tools and methods used by the agency.
3. **Integrations**—ProMiles will implement all integrations needed for the system to work within the agency's network and systems. Common integrations are listed in a later section.

4. **Match Agency Logos, Style Sheets, and Agency Name**—ProMiles will update the system to match the agency’s look and feel including implementing the agency’s system name.
5. **Configure Permit Types and Workflows**—ProMiles will work with the agency to define and configure all permit types within the system and workflows related to these types. These workflows can include work for district and other external staff, route surveys, bridge studies, and others. PSDC will build out the permit PDFs as directed by the agency.
6. **Configure Queues, Correspondence, and Other Messages**—ProMiles will work with the agency to define and implement queues, help text, messages, and other configurable settings within the system.
7. **Customization**—While the AASHTOWare PermitRoute System is extremely configurable, all permitting agencies will need some customizations to meet all of their requirements. ProMiles will designate a Project Team to work with the Agency Project Team to identify and define customizations needed to implement the system. ProMiles will use an agile process with three-week sprints to implement the integrations. Agency staff will have access to the sprint board and will work with the ProMiles team to prioritize the work. ProMiles staff will test all customizations prior to demonstrating the changes to the Agency Project Team. ProMiles and the Agency Project Team will continue with the customizations until a Minimum Viable Product (MVP) is identified. ProMiles will continue development after system launch to ensure the system meets all requirements. PSDC uses the same sprint process throughout the life of the system to ensure that it meets all requirements and permitting needs of the agency.
8. **Training and Documentation**—ProMiles will create all documentation and training materials for the system. This will include help videos that will be posted to the website. ProMiles will train both agency staff and carrier users on the system.
9. **Launch Support**—ProMiles will provide on-site launch support.

AASHTOWare PermitRoute Integrations

The AASHTOWare PermitRoute must work with a number of Agency systems to efficiently route and permit OS/OW travel. The AASHTOWare PermitRoute system can be integrated with any number of external systems as needed. All integrations can be customized allowing the system to work with legacy information systems that are difficult to change.

Follows are common AASHTOWare PermitRoute integrations:

1. **Single Sign On (SSO)**—The AASHTOWare PermitRoute system integrates with virtually any single sign on system. Common systems include Okta, Azure AD, and home built integrations. The system can be configured so that state users can log in through the single sign on, while customers use the integrated local login. The system can be configured so both internal users and external users use the same or different SSO systems. If the agency does not wish to use any SSO, the AASHTOWare PermitRoute system has a full feature integrated authentication system built in.
2. **Bridge Inventory**—The AASHTOWare PermitRoute integrates with a variety of bridge inventory systems including AASHTOWare BrM. The system is able to retrieve and update bridge information on a daily basis from these systems. Generally, this includes posted, clearance, and closed bridges.
3. **Travel Alert Systems**—The AASHTOWare PermitRoute integrates with a variety of travel alert or construction information systems. The system is able to retrieve and update temporary restrictions on a near real-time basis using alerts from these systems.
4. **GIS Data Sources**—The AASHTOWare PermitRoute can consume GIS data from agency GIS sources. In each case, these have been ESRI endpoints. Some agencies provide bridge inventory updates from the bridge inventory system using these GIS systems. The system can consume GIS updates using these integrations.
5. **CVIEW and Similar Carrier Compliance Systems**—The AASHTOWare PermitRoute integrates with a variety of State and federal carrier compliance systems. This includes the state’s CVIEW system or the federal PRISM system. In most cases, the system requires the accounts for carriers with a USDOT Number to match what is in the federal SAFER database. The system validates to make sure that carriers are not out of service before creating their account and issuing permits. The system builds reports for the FHWA for attempts to issue OS/OW permits for carriers that

have a federal out of service order. The system can consume state level carrier compliance information in a similar way. The system will provide OS/OW permit and carrier information for roadside, weigh in motion, and audit purposes using integrations.

6. **Payment Processors**—The AASHTOWare PermitRoute integrates with a variety of credit card payment processors. The system is able to accept, based on State or Agency requirements, credit cards or ACH transactions. Each system uses a shopping cart allowing the user to purchase multiple permits with a single transaction. All credit card information is entered into the credit card processor system directly. The Permitting and Routing system is PCI compliant for card not present transactions.
7. **Integrated Carrier Information System**—Some agencies have integrated motor carrier services including systems like IFTA, IRP, SSR, and CMVRS. The AASHTOWare PermitRoute system integrates with these systems ensuring that the carrier has a uniform account number across multiple motor carrier systems. This allows the state to refuse to permit carriers with delinquencies or other issues in these other systems.
8. **State or Agency Accounting Systems**—The AASHTOWare PermitRoute integrates with a variety of state or agency accounting systems. The permitting and routing system can automate the submission of transactions to the accounting systems to facilitate reconciliation and recording transactions.

AASHTOWare PermitRoute Support

The AASHTOWare PermitRoute works in an ever-changing environment. The highway road network and Oversize/Overweight restrictions are constantly changing. Frequent changes are made to bridge conditions and clearances. The legal environment for permitting is also changing and new permit types and requirements can be required at any time. Supporting systems will frequently change and system security is ever-changing as new threats are identified.

The AASHTOWare PermitRoute vendor, ProMiles, provides support for the system to ensure that the system continues to meet the agencies OS/OW permitting needs. Support includes the following items:

1. Access to support personnel including after-hours contact support. PSDC will provide second line support for permit applicants. This includes remote access sessions to debug and fix issues users have with the AASHTOWare PermitRoute system.
2. Software upgrades as needed to support the system due to bug and issue fixes, and enhancements required to meet changes due to legislative and rule changes. These upgrades will also ensure that any support software components (such as PDF and report generation components) do not become un-supported.
3. Upgrades to rectify all identified security issues.
4. Upgrades to ensure that the software runs on all new hardware and software including new operating systems and databases. PSDC will provide updates to correct problems when major new browsers are released.
5. Enhancements to the system required for new support systems including, but not limited to, payment processors, carrier compliance systems, SSO systems, and travel alert systems.
6. Access to enhancements to the AASHTOWare PermitRoute system made for other agencies.
7. A set number of development hours based on the permit count that can be used by the agency for any purpose.

This support provides the agency confidence that its system will continue to support its permitting needs and that no surprise expenses will arise when the legislature creates new permit types, external systems change, or new security flaws are identified.

Process for Funding Additional Enhancements

User Support

All support for the AASHTOWare PermitRoute is provided through an alliance agreement between AASHTO and the owner and developer of the AASHTOWare PermitRoute, ProMiles Software Development Corporation (PSDC).

User Support is provided for licensed AASHTOWare PermitRoute users through phone, email, and a ticketing system. Support contact information and hours are unique for each system.

Hardware and Software Environments

The entire AASHTOWare PermitRoute is delivered to end-users through a cloud-based web Software as a Service (SaaS) application. Because the AASHTOWare PermitRoute System is cloud-based, hardware and software requirements are minimal, as the application is not installed locally. All elements of the system can be accessed from any computer with an up-to-date web browser, including the latest versions of Chrome, Firefox, Safari, and Edge.

Current Annual Fees and Licensing Options

Annual License Fees are broken out by annual permit count: Note: If permitting for local agencies is included in the system, those permits will be included in the total permit count.

Annual Fees

Annual Permit Count	Annual License Fee
	AASHTOWare PermitRoute Permits
Less than 50,000	\$125,000
50,001 to 200,000	\$185,000
200,001 to 500,000	\$265,000
More than 500,000	\$350,000

AASHTOWare PermitRoute Permits

The Annual License Fee shown in the Annual Fees table allows the use of the AASHTOWare PermitRoute with an unlimited number of users within an agency, and an unlimited number of external users including users for other agencies, carriers, and other third-party permit services. License fees are based on the previous year's permit counts.

Additional License Fees

Additional license fees will be required for the following situations:

1. A complexity license fee will be charged for especially complex systems, or if there are additional systems integrated with the permitting and routing system. These additional systems frequently include motor carrier compliance and similar systems.
2. The AASHTOWare PermitRoute is covered by a SOC 2 Type 2 review. If the agency requires additional security considerations such as third party penetration testing, Attestation of PCI Compliance by a QSA, SOC 1 or similar, additional license fees will be charged.

Note: If these additional services are needed, they will be paid via service units. The agencies should work with ProMiles to determine if the service is needed and how many service units will need to be ordered from AASHTO. This will be an annual fee.

AASHTOWare PermitRoute Implementation/Service Units

The Implementation and Service Unit partner (ProMiles Software Development Corporation) is an AASHTOWare partner, and solely responsible for all aspects of the performance, delivery, quality and terms and conditions of service they provide to agencies. AASHTO SHALL NOT BE RESPONSIBLE AND DISCLAIMS ANY AND ALL LIABILITY FOR ANY DAMAGE OR LOSS WHATSOEVER, INCLUDING PERSONAL INJURY, DAMAGE TO PROPERTY, OR

LOSS OF BUSINESS OPERATIONS, INFORMATION OR DATA, ARISING OUT OF OR RELATING TO ANY ACT OR OMISSION OF IMPLEMENTATION UNIT AND SERVICE UNIT PARTNERS, THEIR EMPLOYEES, AGENTS AND SUBCONTRACTORS. For work OTHER THAN implementation, it is highly recommended that each agency review its service needs with the AASHTOWare PermitRoute System, develop a firm estimate of the number of Service Units required, and establish work plans and other terms and conditions of service, including the schedule for delivery, prior to submitting their commitment. Further, AASHTOWare reserves the right to review work plans for Implementation and Service Unit work to ensure conformance with the guidelines for their use.

The intent of AASHTOWare Implementation and Service Units is to offer the opportunity for an agency to acquire special fixed-fee increments or units of partner-provided service for consultation and support. AASHTO shall serve as facilitator only by accepting the commitment for such partner-provided services, invoice and receive payment on behalf of the agency, and forward the order and payment to the partner for the appropriate number of AASHTOWare Implementation or Service Units ordered. Further, AASHTO assumes no responsibility or liability for any obligation of AASHTOWare Implementation and Service Unit providers, including scheduling or delivery of such units. It shall remain the responsibility of the subscribing agency to schedule their individual AASHTOWare Implementation or Service Unit(s) and establish any other terms and conditions directly with the partner.

Implementation Units are required in the first year of licensing to address one-time costs associated with the AASHTOWare PermitRoute. The AASHTOWare PermitRoute requires the purchase of implementation units to cover the cost related to implementation activities.

Oversight of all AASHTOWare PermitRoute implementation activities will be performed by a ProMiles Project Manager, who will coordinate all related meetings, tasks, and schedules. Implementation activities also include data clean-up and connecting the agency’s data sources, configuring the licensed applications, and providing end-user training. The Project Manager will conduct regularly scheduled meetings with the agency’s project team to review the status of tasks, discuss design options, collect product feedback, and coordinate training. The implementation process ensures that agencies have an operational and functional set of applications that are correctly configured for each organization and a trained workforce to utilize the applications in their day-to-day operations.

An estimated number of AASHTOWare Implementation Units required is provided in the table below.

Note: Many factors can contribute to the level of effort required to successfully implement the software for an agency, and the cost and therefore the number of implementation units required, may vary from the estimated number of units provided in the table below. Generally, additional implementation units are required if the system will service local agencies within the jurisdiction that licensing agency is based. Each agency should discuss implementation activities directly with ProMiles and obtain a proposal for implementation prior to ordering any AASHTOWare PermitRoute units, so that an appropriate number of implementation units can be ordered through AASHTO.

Annual Permit Count	Estimated Implementation Units Required One-time 1st Year
	AASHTOWare PermitRoute Units
Less than 50,000	48
50,001 to 200,000	60
200,001 to 500,000	100
More than 500,000	120

Fee for AASHTOWare PermitRoute Implementation Units

The cost of implementation can be ordered in whole unit increments, each equal to \$25,000, which cannot be prorated and shall be paid upon receipt of the invoice. Many factors can contribute to the level of effort required to successfully implement the software in an agency, and the cost and the number of implementation units required, may vary from the estimated number of units provided in the table above. Each agency should discuss implementation activities directly

with ProMiles and obtain a proposal for implementation prior to ordering any AASHTOWare PermitRoute system so that an appropriate number of implementation units can be ordered through AASHTO.

Service Unit Work Options

These services provide for consultation and support to assist the agency with configurations of AASHTOWare PermitRoute products which go beyond the initial implementation process

In general, service units should not be used for work involving major new software development by member agencies. Service Units may be converted to provide additional enhancement funding under the guidance of the Strategic Advisory Committee. To ensure that ownership issues are resolved, significant development work related to AASHTOWare products and enhancement requests utilizing service units should be reviewed by the Strategic Advisory Committee prior to the work being performed. The use of service units to perform modifications that change product source code must be reviewed and approved by the Strategic Advisory Committee. Service Units may not be used to provide reimbursement for travel expenses by agency personnel.

Fee for AASHTOWare PermitRoute Service Units

This service is offered and can be ordered in unit increments of \$10,000, which cannot be prorated and shall be paid upon receipt of the invoice.



The AASHTOWare technical service program has a rich history of serving its customers and being a leader in bringing the power of technology through automation to the public sector transportation industry.

As we look to the future, it is important that we build on this rich and robust tradition to create the next generation of technology solutions and continuously improve service to our customers. Our success is based on the commitment of hundreds of volunteers, in partnership with the private community, to produce quality products that meet the common needs of our customers. The challenges we face now and into the future are increasingly more complex than in the past. To ensure continued success as we establish our next generation of products and services, we will clearly focus on a mutually agreed upon set of principles and values to drive our strategic plan, vision, mission, goals and objectives.



AASHTO

**American Association
of State Highway and
Transportation Officials**

555 12th Street NW, Suite 1000
Washington, DC | 20004

www.aashtoware.org
angelw@ashto.org
202-624-5808