PCASE 7.0.5 - 7.0.6 Version Updates

General	
Bug Fixes	**New/Altered Functionalities**
• Modified the Advanced Installer to fix a GIS map display issue that occurred after installing PCASE to a higher version, without having first uninstalled the program. • Repaired an issue that was causing the Runway Branch Use to be set for all imported sections in historic evaluations, despite their actual defined Branch Use in the pavement inventory data. • Fixed code for importing 2.09 sections so that the resulting sections now have the correct surface type. • Fixed an exception that was occurring when the evaluation default traffic pattern within the preferences form was changed. Also fixed a similar issue with the LEEP failure SCI combo box in LEEP default preferences. • Fixed a bug that was causing the ISM Excel report and Design project report to fail to load when selected. • Added code to deal with importing all 5 pavement types supported in 2.09, to address some issues that were occurring when importing these pavement types using PCASE 7. • Fixed a few weather station selection issues that were occurring while using the map in the evaluation/design project manager. • Fixed an issue with the search function on the pdf viewer that was causing the window to close when Enter was used to initiate a search. • Made the database verification tool constructor public to prevent an RTE which was occurring when attempting to launch the tool.	• Rewrote the default preferences form: 1) Converted forms and controllers to C#. 2) Moved the startup/welcome form and fixed the behavior of the "Show this window on program start" check box so that it doesn't always revert to showing the window. 3) Created helpers for the top-level tool selection and added check box helpers. 4) Fixed some issues with display of the design/evaluation tabs within the form. 5) Fixed a save issue with the "Show this window on program start" check box within the Getting Started window. • Implemented a database verification tool: 1) Added a search for deleted feature data records and code that identifies/modifies the records that point at deleted sections. 2) Revised the tool's output and fixed a bug which was preventing changes from being saved. 3) Made it so the tool can identify custom vehicles that are no longer being used in any projects. 4) Added logic to identify the layer models that need to be calculated. 5) Added code that counts the number of NDT file assignments that associated a LEEP layer model from one evaluation with an NDT drop from another evaluation. 6) Changed some output messages and fixed a problem with the cancel button. 7) Fixed a bug in which the code for changing feature data records to ad-hoc sections was affecting historical projects. 8) Added logic to identify corrupted traffic patterns. 9) Corrected an issue in the traffic pattern class. 10) Wrote some code to identify which NDT files need to be copied and which references need to be updated after the NDT files have been copied. 11) Added an override of columns to skip to prevent unnecessary foreign keys from being copied. 12) Eliminated the support for obsolete out-of-memory copy operations. 13) Added a checkbox that controls whether the database verification

	tool fixes invalid NDT references or not. 14) Revised the UI for the tool so that it now displays the results of the PAVER verification process. 15) Added a feature that corrects the surface types of sections that were incorrectly imported from 2.09. 16) Added a check which identifies differences between section names and traffic area.
	• Modified the routine for getting subgrade categories for traffic to handle LEEP and LED, where subgrade strength must be computed for modulus. Also modified report layer model selection to include both representative and additional layer models, so that report selection is no longer limited to just the representative layer model for each section.
	• Changed the PCN column in the Controlling Results (3-3) and Tentative Results (3-4) tabs of the Hybrid Traffic report to display PCN string instead of just the PCN for each section.
	• Added logging of start-up and unhandled exceptions for PAVER and PCASE.
	• Implemented a search function for all pdf viewers within PCASE 7 including the user guide, getting started, and all three locations for the backcalculation parameters formulas tab.

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Design	
Bug Fixes	**New/Altered Functionalities**
• Corrected logic for determining subgrade strength that is critical for the design controlling vehicle calculation so that the season is properly set at the right time, the issue was causing equivalent passes between the GUI and report to vary at times. Also fixed a bug in controlling result caching. • Changed the halting criteria for the depth of frost calculation to prevent an issue with Separation or Subbase layer thicknesses changing after a second calculate for LSFP. • Added defenses on the Design form for traffic patterns without vehicles and also against selecting an invalid traffic pattern when there is only one pattern in a project. Modified traffic form logic to prevent easily creating an empty traffic pattern. Made it so a layer model cannot be created based on an empty traffic pattern. Cleaned up traffic form allowance methods to further improve behavior when traffic patterns have no vehicles. • Fixed an issue that was causing calculation results to be unaffected by changes to traffic passes and loads in Design. • Modified logic for setting layer models as needing recalculation, so that only layer models with a drainage layer are affected when the drainage station is changed in a design project. Also added logic to only mark layer models as needing recalculation after the frost station changes, if the layer model does not have a user-defined depth of frost. • Fixed a transcription error in a validator that was using unsurfaced CBR instead of Mat CBR validation logic for newly created designs. • Fixed a transcription error where material type was being passed instead	• Implemented the ability to export specific design projects or single designs, written as XML files. Also added the ability to import design projects. • Added support for allowing users to select a controlling vehicle to use in Design layer model calculation. • Added a label below the View Traffic Pattern button in Design that displays the controlling traffic vehicle, load and passes for CBR/K layer models. Fixed a side effect of the changes that was causing null reference errors when the Design form was opened without any existing projects as well as an issue with incorrect load and passes shown in the new label. • Added an initial test to the selection of preferred design frost solution so that if the depth of frost penetration is less than the non-frost thickness above the subgrade, then the non-frost solution is highlighted in the layer model grid. Also added a null reference test to the new code that shows controlling traffic. • Added display of depth of frost for LE designs: 1) Made dry unit weight, moisture content, and frost code visible and editable when frost is selected at the project level. 2) Added initialization logic to set the frost code to NFS for new layer models. 3) Enabled validation for moisture content and dry unit weight columns. 4) Fixed the depth of frost textbox to be non-editable. • Added a new property to traffic patterns to identify patterns that are relevant for shoulders and modified the Design form for new layer models to force selection. • Modified logic for selecting the preferred design frost solution as follows; If the depth of frost penetration does not reach a frost susceptible layer the non-frost solution is preferred, If NF < LFSP = RSS or NF < RSS < LFSP then RSS solution is preferred, else if NF < LFSP < RSS then

of layer type, which caused an exception to be thrown when attempting to change a layer type.

- Restored a missing call, which was causing the Design Report window to not properly display report items available for selection.
- Fixed an issue with the load transfer helper in Design which was preventing the default Load Transfer value for parking areas from being applied.
- Disabled the frost warning message that was being displayed for Unsurfaced/Mat designs when frost was a factor for the project.
- Corrected a flaw in the Design layer model grid layout that was causing almost all layer grid layouts to be based on the LED column configuration.
- Modified the default values for the Estimated AASHTO ESALs form.
- Added defenses against wrapping the wrapper layer object to prevent a run-time error that was occurring when attempting to change a layer type.
- Fixed an issue that was causing the default Service to not be applied when new design projects were created.
- Added a check to see if a design project is null to fix an exception that was being thrown after deleting projects.
- Fixed an issue with the design project UID not being properly set when a design project was imported.
- Corrected an issue that was causing the Designer Name set in default preferences to not be applied when a new design project was created.
- Corrected an issue that was creating a duplicate design project after copying an existing project and giving it a new name.
- Fixed an issue that was causing the design frost solution column to be highlighted in the layer model grid prior to computation.

the LSFP solution is selected, else prefer the non-frost solution.

- Added a new form for displaying a graphical view of compaction requirements and changed compaction class options, the compaction classes are now selected from a drop-list field above the layer model grid.
- Added the standard RBC helper to the designs grid to enable the same save layout functionality that exists for the layer model grid.
- Changed validation logic to allow old shoulder designs with no traffic pattern and disabled the View Traffic button for old designs -- prior to 7.0.6.
- Added the ability to import and export design projects or specific designs.
- Enabled the Subgrade Preparation button for calculated LED frost designs with a calculated depth of frost greater than zero.
- Changed the post-calculate logic for LED to use the calculated thickness for overlay layers, even if the calculated thickness is less than the minimum thickness.
- Hid the ESALs button for Mat structures in Design.
- Implemented a Design sensitivity analysis tool.
- Revised the calculation results information message that informs users when total passes of the controlling vehicle have been restricted to 10,000 coverages for unsurfaced and mat airfield designs.
- Modified the ESALs form to display the inputs used in the calculation and added a column in the Layer Models grid to display the calculated estimated AASHTO ESALs.
- Added compaction test cases to ensure results are correct and match engineer-provided results.

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- Fixed an issue with missing drainage and frost properties in imported design projects.
- Added a request notification on change to the controlling traffic for CBR/K label on the design form, so that the label updates properly when properties are changed that affect the controlling traffic.
- Commented out logic that was preventing the layer model Delete button to not enable/disable properly and replaced it with standard code.
- Added additional space for the New layer model button so that the red exclamation icon could be fully visible on the Design form.
- Fixed a logic inversion on the project selection helper after a project had been edited that was preventing the Drainage calculator from enabling if a precipitation station was selected after layer model creation.
- Made the compaction table controls disabled if no layer models exist within a project.
- Armored against a null reference error that was occurring when the Import layer model button was selected and there were no layer models to import.
- Fixed a typo in the design layer view model logic that was causing LSFP values to be displayed in Metric units.
- Fixed a bad entry in the unsurfaced class III table and adjusted a compaction rule for flexible and unsurfaced.
- Corrected an issue with the form not remembering the last project/design/layer model that was selected when the form was last closed.
- Modified the Design controlling traffic cache to include the auto-detect controlling vehicle flag in cached values.
- Added a defense to all validators against not being able to find their column in the Design layer model grid.

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• Added logic to design layer model import to fix an issue with damage results being lost upon design/layer model import.	

APE and LEEP	
Bug Fixes	**New/Altered Functionalities**
• Added a missing progress indicator for individual calculations that was causing vehicle/load/passes to not be displayed in the progress bar when running analyses using 14-Groups. • Fixed some refresh issues that were occurring while using multiple hybrid traffic patterns in an evaluation. • Added a method to copy machinery for deciding when to skip copying and implemented it for layer models to hybrid result and additional layer models so they are not erroneously copied. • Fixed some synchronization bugs that were causing deadlock when attempting to add sections to evaluations in LEEP and APE via the Evaluation Checklist. • Fixed an issue with the evaluation batch calculation always reporting errors for layer models and changed the hybrid result layer model name to better distinguish between the two-layer models when using hybrid analysis. • Fixed an issue with the validation logic associated with Metric and English unit changes. • Fixed an issue with View Coverages and View F Factors not working for hybrid result models. • Fixed a bug that was caused by the Use Mission Critical Aircraft for ACN combo box erroneously initializing when toggling through sections. • Addressed multiple cases in which validators were not detecting layer-model-level issues during batch calculation: 1) Added validators for traffic pattern present, backcalculation needed, mission critical aircraft, analyze as, load	• Added a Hybrid Traffic report: 1) Modified the layout for the new report. 2) Added the Projected Traffic and Controlling Results worksheets. 3) Changed the number of digits displayed after a decimal point for overlays. 4) Added thousand separators for AGL, equivalent evaluation passes, and allowable passes. 5) Reversed the sort order for the Pass Intensity Factor column. 6) Corrected some issue with how the hybrid traffic report generates data. 7) Fixed an issue with the traffic mode not updating when the traffic pattern was changed from mixed to individual outside of the LEEP/APE form. • Changed the information messages that display after sections are added/not added to an evaluation using the Evaluation Checklist to more accurately reflect the result. • Made substantial changes to the evaluation batch calculation function: 1) Implemented a new daughter form. 2) Added radio button options for selecting which sections to calculate and added a combo box to allow selection of an additional traffic pattern. 3) Corrected some issues with the hybrid option. • Changed verbiage on the copy evaluation form for the WES5/YULEA setting to make it more clear and added tooltips to explain the two options. Also changed the APE/LEEP evaluation options to radio buttons to make selecting sections to copy easier. • Modified the batch calculation machinery to allow any non-hybrid traffic pattern to be used for the "Additional" calculation option,

percent transfer, joint deflection ratio, depth of frost, inspection properties, and failure SCI. 2) Modified the mission traffic control so that an error state is no longer possible and fixed the layout of the Evaluation Manager so the mission vehicle does not make the traffic pattern list unreadable. 3) Created a base class for numeric layer model validators. 4) Unified joint deflection ratio constants. 5) Cleaned up text box helpers and replaced overlay flexural strength and modulus text boxes with NUDs.

- Set the controlling vehicle combo box within the evaluation traffic form to be disabled for historic evaluations.
- Fixed an issue that was preventing selection of subsequent layer models for the same section while using the Respond to selections function.
- Fixed an issue that was causing the Mixed Traffic AGL-PCN report and the ISR report to fail when there is no assigned inventory branch use for sections selected for either report.
- Addressed an issue with an error occurring when traffic pattern names exceeded the allowable length.
- Added cancel defenses for the new ad-hoc section form to handle a run-time error that was occurring when using "X" to close the form when launched from APE, LEEP or the Evaluation Checklist.
- Fixed an issue with Cb and Cr values in the Evaluation Results report not displaying correctly as compared to the section values.
- Added a check to see if the dictionary already contained a key for equivalent passes to address an unhandled exception that was occurring during hybrid batch calculation.
- Fixed multiple issues that were causing improper handling of representative layer models in copied evaluations; set the copy logic to copy the representative

which was previously restricted to only allow individual patterns.

- Added a combo box that allows users to select a hybrid result controlling vehicle to publish in the Hybrid Traffic report. Also added a "Controlling Results" tab to the Hybrid Traffic report and refactored the report tab code to an object-oriented structure. Fixed the vehicle ordering to match what is used elsewhere.
- Added a cancel button to the progress bar that displays during the batch calculation process.
- Made a few modifications for batch calculation: 1) Appended the traffic pattern name to layer model name when the Additional option is used during batch calculation. 2) Modified the status message displayed for layer models that need inputs prior to running the batch calculation process.
- Modified the old selector mode to a checkbox (Respond to selections). Turning this option on enables users to use all selectors to select sections for evaluation.
- Increased the length of the Rigid Criteria combo box within the Evaluation Manager, so the full text is now visible.
- Added vertical and horizontal scrolling capability to the Traffic, Section, Backcalculation, and Analysis setting tabs. Adjusted the form controls to get better sizing performance.
- Changed validation check for batch calculation to only look at the representative basin when determining which layer models to flag as having errors.
- Hid layer-specific result columns in the Evaluation Results report when there's more than one vehicle available. Also changed the Evaluation Results report for APE to not show AGL or AP for the AC layer.
- Added a flag that populates in the evaluation reports window when the Mixed Traffic AGL-PCN Report is selected; to

model and check that the model is representative.

- Hid the "Use mission critical aircraft for ACN" checkbox, when roadway traffic is selected for sections.
- Corrected an issue that was causing no representative model to be set when an ad-hoc section was copied in an evaluation. Also fixed a run-time error that resulted after deleting the copied layer model.
- Fixed an issue with an invalid cast that was causing a run-time error after selecting the PCASE 2.09 Compatibility button.
- Fixed some desktop selection issues that were introduced during code refactoring that caused the Respond to selections option to not work with the Evaluation Checklist. Also prevented broadcast of the selection when the selected layer model is null to repair a refresh issue that was occurring after deleting a section.
- Added a binding start/binding stop around code where an RTE was occurring after updating a layer thickness in a new evaluation when "Respond to selections" was turned on for only one form.
- Fixed an issue with an obsolete property being set for Calculate overlays, which was preventing the Calculate overlays default preference to not be properly set in the Evaluation Manager.
- Corrected an issue with the Mission critical aircraft for ACN combo box not retaining its selection in the Evaluation Manager.
- Turned off making "Order by Section ID" hidden when "Respond to selections" was turned on.
- Added new logic to the 14-Group AGL report so that it can recognize Old AF-Group traffic patterns, even if no source ID is set.

allow users the option to include both English and Metric values in the report results.

- Allowed users the ability to delete hybrid and additional layer models in APE and LEEP.

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• Fixed some issues with the Use Mission Critical Aircraft for ACN not displaying the correct weight. • Fixed an issue that was preventing the label which notifies users when there is DCP data associated with a section from updating properly. • Corrected an issue with the Frost and Thaw Season tabs being displayed for copied evaluations when Climate Data was unselected. • Added a defensive check against no inspection rows on copy to repair an issue with an exception that was being thrown when copying an evaluation. • Corrected an issue with the scroll bars being disabled on the Section tab when evaluations were set to historic. • Added logic to not import layer models that have no valid layers to address an issue with invalid PEX file imports. • Fixed an issue with the order of results in the Evaluation Results report, when the same vehicle was used in a traffic pattern with varying loads and identical passes. • Added logic to detect reduced load for traffic areas C, D to fix an error with the Mixed Traffic AGL-PCN report. • Updated failing evaluation test cases to PCASE 7 values and ensured all test cases pass. • Corrected a Fortran call issue in 64-bit mode that was preventing Mission ACN results from being properly returned.	

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APE	
Bug Fixes	**New/Altered Functionalities**
• Fixed an issue that was preventing a recalculate notification in APE, after changing moduli for calculated PCC structures. • Corrected code validators that were allowing invalid modulus values to be inputted in the layer model grid. • Fixed an issue with the validators for k-values that were not excluding AC or PCC layers, which resulted in a "Cannot evaluate..." status when attempting to run batch calculation.	• Hid the "Controlling Layer" column in APE for rigid analysis.

LEEP and FWD	
Bug Fixes	**New/Altered Functionalities**
• Fixed a validation issue with the Drainage and Separation moduli default value fields within the LEEP Evaluation Defaults tab. • Corrected some issues with the call to the depth to bedrock calculation that were on occasion causing the calculation to output empty results, due to depth of frost updating after the calculation. • Set PCC overlay settings to read-only for hybrid result layer models. • Removed a condition that was preventing calculation of 5-day mean for a day that has no high/low temperature entry. • Changed the depth of frost routine to exclude geotextile, mat, and bedrock layers before passing the value to the Fortran, to fix an issue with negative depth of frost after running the bedrock calculation in LEEP. • Made it so changes to high/low temperature inputs within the 5-day mean are now being saved after values have changed from the initial inputs.	• Added logic to copy 5 day mean temperatures with copied evaluations when the Climate check box is selected within the copy evaluation form. • Implemented a short-cut for entering 5-day mean temperatures: 1) Added a new button within the 5-day mean form that allows input of a single value and began restructuring form classes and methods for MVVM. 2) Got rid of null test date value and renamed it to date for mean. 3) Moved logic for building view model into the controller. 4) Added fixes for metric units. • Added an information icon button that explains editing features for the FWD Manager Data Grid. • Added a new grid below the detailed basin results that has two radio button options; "Use median of all considered basins" or "Use mean modulus of each layer" modulus results are copied to the layer model depending on the selection. • Added file import support for .db3, .zxz, .txt, and .csv from Zorn app using the FWD Manager. • Added a Lanes checklist box that is displayed in the FWD Manager when there's more than one lane defined and

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- Made the Load Frequency numeric field read-only when LEEP evaluations are set to historic.
- Added a step to remove invalid or duplicate LEEP/NDT records to address assertion failures that were occurring when attempting to run the Backcalculation Results report.
- Fixed a bug in LEEP that was causing an exception to be thrown when attempting to import a layer model from Design, DCP, or APE.
- Added a defense against a station with no drops to handle an exception that was occurring when attempting to run the ISM Report - All Stations on a specific evaluation.
- Fixed an issue in LEEP that was causing layer models to be marked as needing calculation when it was really not needed for historic imported evaluations, due to setting the frost evaluation method.
- Fixed an issue with the LEEP layer model grid cells not updating properly. Also fixed an exception that was being thrown when the LEEP form was initially opened.
- Added back logic that reloads layers after a grid cell value has changed and modified notification of the change for the LEEP layer model grid to also reload layers if the Set to 240 button is selected. Added a brute force refresh when thicknesses have been changed. Fixed an issue in which LEEP was not properly excluding Subbase Geotextile layers when building pavement structures for the Fortran. Corrected a logic error in the test of whether the subgrade layer needed to be refreshed.
- Fixed refresh issues with the Modulus column cells in the layer model grid.
- Enabled the Moisture Content column cells for flexible structures.

- also added a Lane column to the Data Grid. Made the chart respond to Lane changes.
- Changed the scale of the X and Y axes so that the ISM Report-Excel and ISM Report-Images now match when using metric units.
- Modified the Backcalculation Results report to a single block by moving the moduli columns to the end, which leaves the deflection information in the same columns.
- Added a bedrock layer to WESDEF LEEP layer models, imported into evaluations set to use YULEA.
- Added a new report called "ISM Report - All Stations". Added a defense against duplicate station UIDs. Reworked the station traversal logic to deal with the same station being used in multiple tests with different PIDs.
- Added an information message in LEEP for when the allowable gross load equals 10 times the load. Unified multiple copies of logic for limiting AGL and passes in APE and LEEP.
- Commented out the automatic value change for seed modulus so that the red exclamation icon is now displayed along with a tooltip which provides the acceptable value range.
- Changed logic for the stress/strain form to pass the bedrock layer if the YULEA option is being used.
- Changed the Modulus Tables report so that it only displays flexural strength values for PCC layers.
- Added a new test case that corresponds to unreasonable PCN value LEEP results for flexible pavements.

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• Corrected an issue in the layer model grid which was causing the Modulus Hit Limit responses to not populate. • Changed logic by which the Select Basins form determines whether to delete basin results to fix an issue that occurred when Show basin results was selected after closing the Select basins form. • Implemented a defense against integrity violations in an e70 due to missing integrity rules that were causing an import failure. • Fixed some GUI-driven dirty issues and added a missing Save Changes to the batch calculate logic to correct a problem with layer models being marked as needing recalculate. • Added logic to determine the "Analyze as" value from the layer model if it is otherwise missing to prevent strange LEEP results when layer models are missing columns. • Defended against producing an infinite modulus when the deflection value is zero to fix an error that was occurring when the Estimated Subgrade Modulus option was selected in the FWD Manager. • Corrected "recalculate needed" behavior for AC modulus based on average temperature. Added logic to flag that backcalculation needs to be reran when the average E temp has changed.	

DCP	
Bug Fixes	**New/Altered Functionalities**
• Fixed a parsing error that was occurring during .dcp file import. • Set the surface course thickness and layer thicknesses to be rounded in the DCP layer model report. Also set the value and units for zero blows to match the selection of the penetration reading units on the form.	• Modified the DCP layer model report so that the selected output on the DCP form is published in the report. Fixed an issue with the chart only displaying the first test when creating layer models from multiple tests. Added drop series data to the bottom of the report.

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• Fixed an issue with the E Modulus of Elasticity output option, which was causing the incorrect moduli to be applied after layer model creation. Also fixed an issue with initial snapping of layers that was causing layer strength values to be slightly off.	

Vehicles	
Bug Fixes	**New/Altered Functionalities**
• Fixed an issue with mirrored tire values not working correctly for the evaluation column flags in the Vehicle Editor Tires grid. • Added a flag to the vehicles XML for marking vehicles as obsolete. Also made some fixes to the traffic controller related to whether a pattern is valid and updated the standard vehicle delete message. • Changed the naming convention for obsolete vehicles to fix an error that was occurring when attempting to use such a pattern in a design/evaluation project, due to a sorting issue with the old name. • Fixed an issue with edited values in the X and Y column of the Vehicle Editor Tires grid not being applied when mirroring was turned on. • Changed the calculated contact area values in the Vehicle Editor Tires grid to use rounded percent load to address some minor differences in calculated contact area for newly created custom vehicles. • Removed an extraneous Task.Run that was causing an exception to occur when selecting Curves and ACR in the ACN/ACR Chart. • Changed the Traffic form layout so that the ACN/ACR Curves button does not become hidden when the form is resized.	• Turned off mirroring for "Use for" and "Nose Gear" columns within the Vehicle Editor Tires grid and added logic to toggle all "Use for" flags on a row by using Ctrl-click. • Created a new standard traffic pattern (Navy Default Representative Vehicles) and added the appropriate vehicles along with their respective maximum loads and set 1 pass per vehicle. • Allowed set-all/clear-all on wheel evaluation flag column checkboxes within the Vehicle Editor Tires grid. • Added the ability to set constant contact area to a custom vehicle: 1) Added a new field for DefaultToConstantContactArea to the vehicles.xml. 2) Added a setting to the 209 compatibility form and propogated the value through the system as the new default. • Added logic to defend against Fortran run-time errors when converting/evaluating a vehicle with more than 100 tires or evaluation points. Added initial code to reduce tire and evaluation point counts upon import of custom vehicles. Added a notification message on vehicle import if we reduce tire or evaluation points, as well as a message if the vehicle has no tires or evaluation points. Added an error message within the Vehicle Editor that notifies users when evaluation points needed to be added to a vehicle. Eliminated calculation of ACN slope/intercept for ground vehicles. Repaired the info icon for the Add Tire

	button when there are already at least 100 tires or evaluation points. • Eliminated the method for writing contact area to vehicle tires and replaced use of the view that accessed that column with use of the object. • Added a report for the ACN/ACN Chart form.

Engineering Code Changes	
Bug Fixes	**New/Altered Functionalities**

	• LEEP
	   ○ Modified the AGL calculation to ensure AGL is not affected by the user-defined evaluation load.
	   ○ Modified the AGL calculation to ensure that the AGL increases from traffic area B to C, due to the differences in loading seen by the pavement (full load vs. 75% load).
	• LE Design
	   ○ When AC overlays are computed; the engineering code returns the computed overlay thickness, regardless of whether or not the computed thickness is less than the minimum thickness.