PA Guide Rail App

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• Roadway Management System (RMS)
  • Official repository for guide rail inventory and conditions
  • Information is used for decision-making, monitoring performance of guide rail and end treatments, accessing future requirements, allocating maintenance funds to the county organizations

• Systematic Technique to Analyze and Manage PA Pavements (STAMPP)
  • Program reviews ¼ of the state-owned network annually for guide rail inventory and condition and updates RMS accordingly

• Guide rail repair, maintenance, replacement and upgrade activities occur daily
  • Unless activities are being tracked and RMS updated manually, the inventory of guide rail in RMS is not being updated until the next assigned STAMPP cycle
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• GIS-based location map which allows the user to identify their current location in relation to RMS inventoried guide rail.

• User selects desired guide rail from map to access survey form.
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• Survey form with menu dropdowns to minimize typing
• Inclusion of standard guide rail system type and end treatment photos to reduce misidentification
• Requires photo of new or updated guide rail system and/or end treatment for audit purposes
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• Improve accuracy of guide rail end treatment locations
  • Captures lat/long and converts it to PennDOT’s Location Referencing System (SR/Segment/Offset) for RMS
  • Works with cellular service, WiFi, or disconnected (GPS chip)
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- Automated inclusion of survey data into RMS
- Data and photos are also accessible through ArcGIS Online and Maintenance-IQ (PennDOT’s GIS application)
• Various Dashboards also available
  • RMS Dashboard – provide metrics on inventory and conditions
    • Total End Treatments, Total Specific End Treatment (i.e. X-Lites), Damaged, Undamaged
  • STAMPP Dashboard – monitor STAMPP inspection status
    • Completed Surveys, Incomplete Surveys, Intentionally not Surveyed
SUMMARY

• Benefits of a GIS Mobile Collector App
  • Improve Asset Management
    • Maintain complete and accurate inventory of guide rail and end treatments in RMS
  • Automate updates to RMS for repair, maintenance, replacement and upgrade activities
  • Improve accuracy of asset locations
    • Lat/Long converted to PennDOT’s LRS SR/Segment/Offset
  • Inventory/Condition data and photos also accessible through Maintenance-IQ
  • Dashboards to track Performance Metrics