

Sign Inventory Management System



SESSION 3E
TRANSPORTATION ENGINEERING
AND SAFETY CONFERENCE
December 6, 2018



History of Sign Inventory

Previous Sign Inventory “Database”

- Previous systems utilized basic database files
 - Static entry with reference to sign photographs
- Signs had to be cross-referenced to straight-line diagrams
 - No map link or GIS coordinate information
- Time consuming and inefficient
- Not user friendly



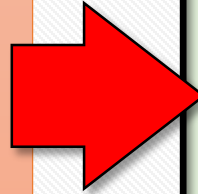


Objectives for New Database

Purpose & Objectives for New Database

Federal Highway Administration (FHWA) created a new mandate for agencies to implement and use a sign management system or method.

- Previous system did not meet requirements of new mandate



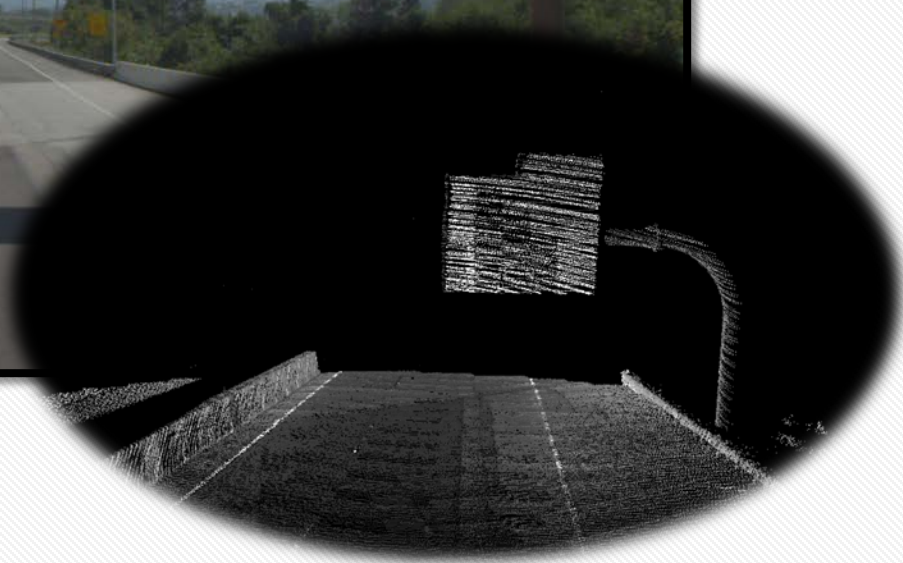
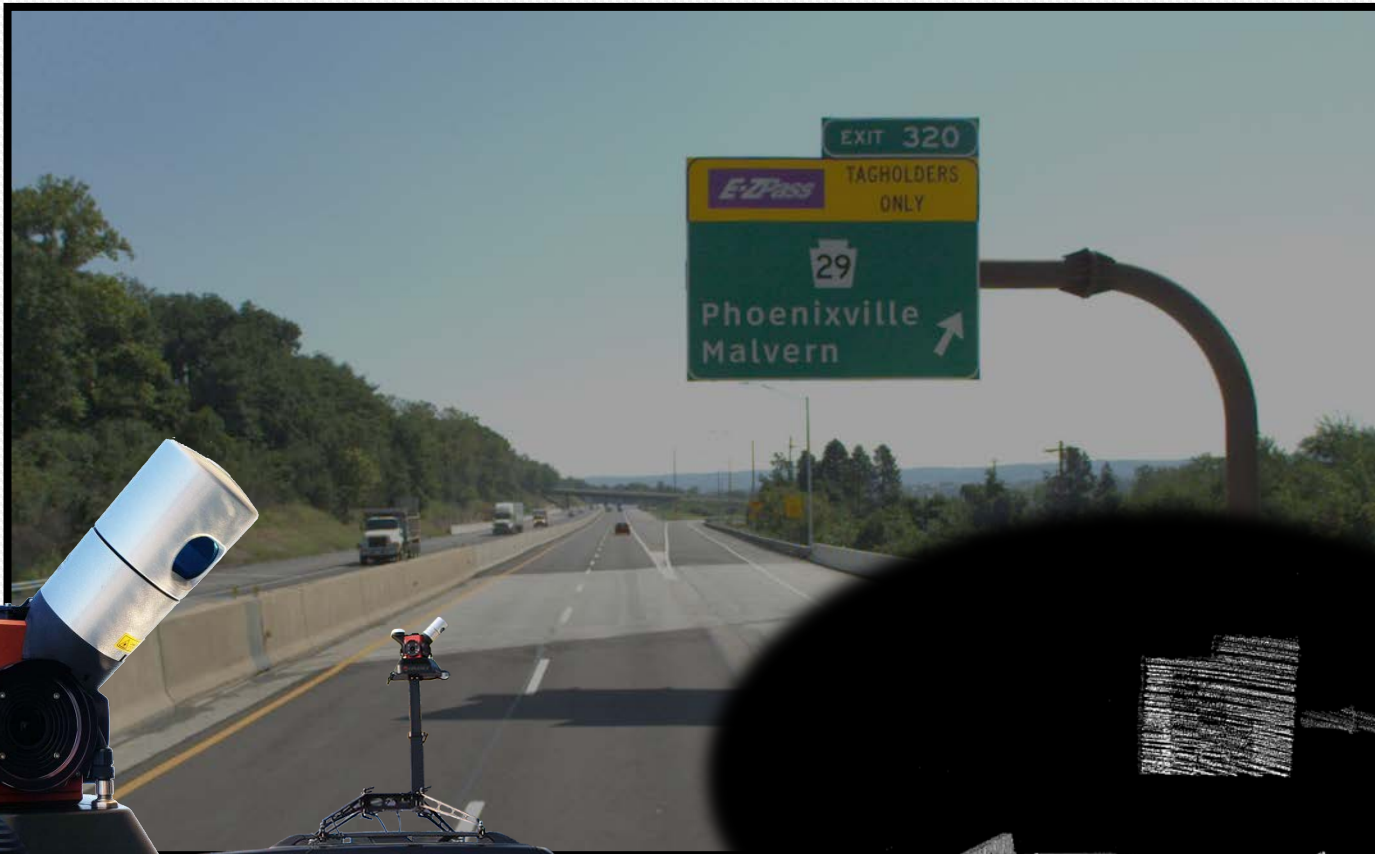
Requirements

- Online Accessible
- GIS Based with Map Reference
- Easily Expandable
 - Ability to add routes
- Generate Maintenance Notifications
- Tracking Sign History



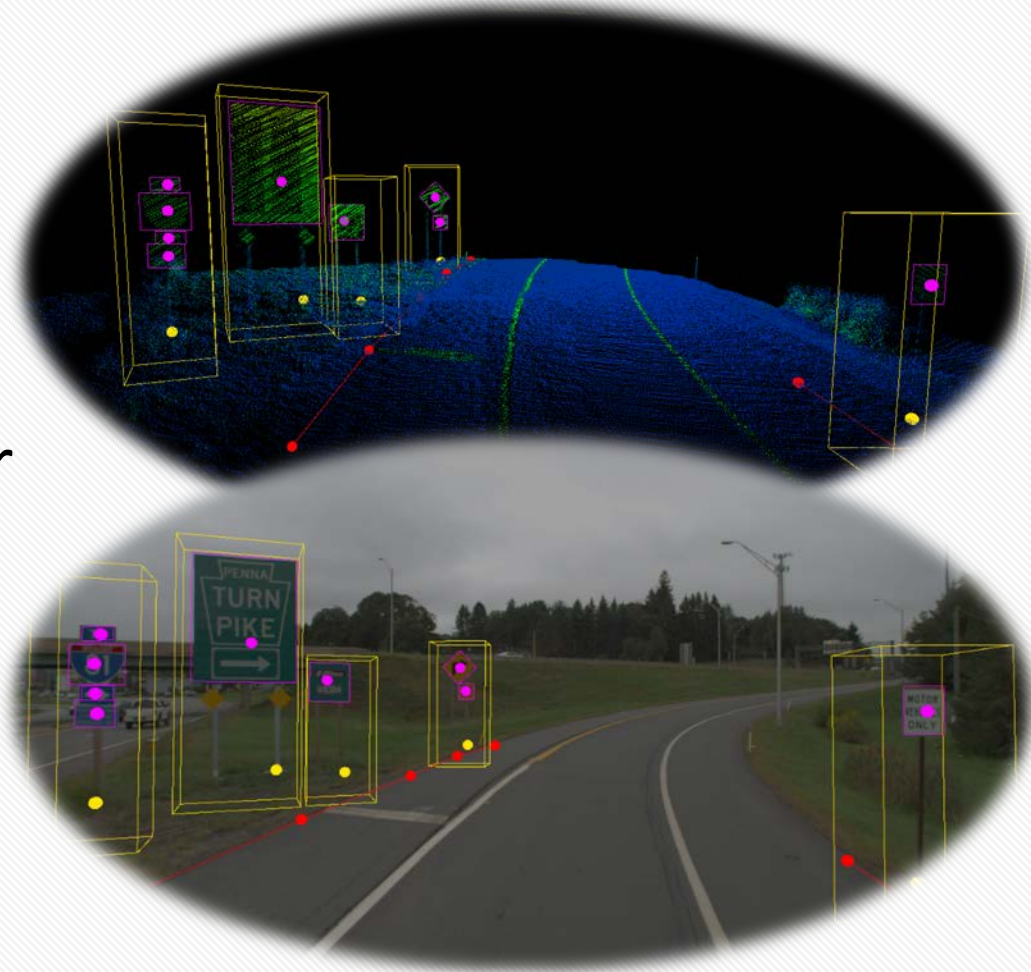
Data Collection Efforts

Mobile LiDAR



Building a New Sign Inventory Database

- Signs were inventoried utilizing a LiDAR and visual image system.
- Provided accurate location information for all signs recorded.
- No signs skipped or missed.
- Automatic asset data generated.



From Sensor to Data Deliverable

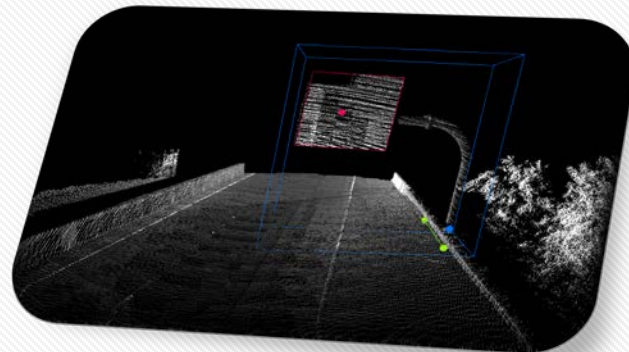




New Sign Inventory Management System

Sign Inventory Stats

- Over 60 attributes for each sign were recorded.
- Previous database contained approximately 15,000 sign entries.
- New database contains over 30,000 individual signs!



Sign Inventory Manager

Signs Manager | Sign Inventory | Operations | Reports | GIS Explorer | EHALIN

Signs > Sign Inventory > Signs > Sign Inventory

Save Reload

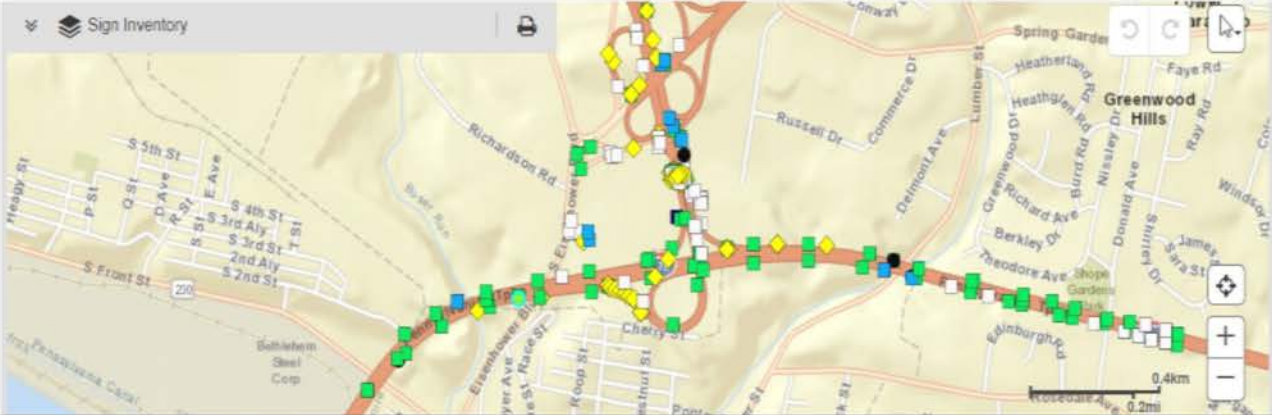
Inventory

Sign Inventory Actions


PTC ...	Direction	Facility	Ramp	Mile ...	Sign No...	Description	Sign Size (in. x in.)	Installation Type	No. of Posts	Location	Sign Class Code	Latitude
T	EB Accel	IC 247 - Harrisb	T247C	247.38	R5-101	Emergency and Authorized Vehicles Only Sign	24 X 30	Type F	0	Gore	Regulatory	40.214054
T	EB Decel	IC 247 - Harrisb	T247D	247.38	W13-2 (25)	Advisory Exit Speed Sign (25 MPH)	48 X 60	Type C	2	Ramp	Warning	40.213834
T	EB Decel	IC 247 - Harrisb	T247D	247.38	N/A	Exit 247 - Harrisburg East - Exit Only	180 X 150	Structure Mounted	0	Ramp	Major Guide	40.214118
T	EB Decel	IC 247 - Harrisb	T247D	247.38	W1-1R	Right Turn Sign	48 X 48	Type C	2	Ramp	Warning	40.214146
T	EB Decel	IC 247 - Harrisb	T247D	247.38	W13-1P (25)	Advisory Speed Plaque (25 MPH)	30 X 30	Type F	0	Ramp	Warning	40.214146
T	EB Decel	IC 247 - Harrisb	T247D	247.38	W1-8	Chevron Alignment Sign	36 X 48	Type C	1	Ramp	Warning	40.214394

<<< 22619 of 28316 total rows >>>

Sign Inventory



Actions



Work Requests

Turn Pike Signs Manager | Sign Inventory | Operations | Reports | GIS Explorer | EHALIN

Signs > Operations > Work Requests

Work Requests Actions

Work Request # 291	Work Request Type Sign Maintenance	Approved? <input checked="" type="checkbox"/>	Mark to Delete? <input type="checkbox"/>
SAP Notification # 10361085	* SAP Notification Short Text N/A/Shoulder/N/A/030.13/UrgentMessage-Tu	SAP Notification Long Text N/A/Shoulder/N/A/030.13/UrgentMessage-TuneRadioto1640	Approval Date 10/24/2018
Reported Date 10/24/2018	Approved By ABRULO	Status Sign 02(a) - Sent to SAP	* Maint. Section Plymouth Meeting
* Functional Location PTC-D04-FAC-INT-A031-SGN	Equipment Number 1028537	Priority Routine	Administrative Unit District 4
Asset N/A/Shoulder/N/A/030.13/UrgentMessage-TuneRadioto1640	Asset Type Signs	SAP Work Order # 4356871	SAP Work Order Long Text N/A/Shoulder/EnterOutsid/030.13/UrgentMe N/A/Shoulder/...
Start Date 12/15/2018	Completion Date	User Update INTERFACE C	Date Update 12/4/2018, 5:00:00
Att.	Linked to WR#	AA Route A31 Toll	Perpen. Offset 0
Milepost 0.000			



LIVE DEMONSTRATION

https://adfs.paturnpike.com/adfs/ls/ldplinitiatedSignon.aspx?loginToRp=https://ptc.agileassets.com/AMS_PTC/alias/sp



Current Sign Inventory Status

- Data collection was completed Fall 2016
- Data extraction was completed Spring 2017
- Initial data validation completed late 2017
- “Go Live” in January 2018
- Currently updating database to capture projects completed since initial data collection

Plans for System Upgrades

- Traffic Engineering Open-End contracts will be used to help maintain the database.
- Continue to utilize mobile LiDAR for data collection.
- Considering full inventory checks every 5 years.
- System will update to account for current, planned and future projects as they are completed.



QUESTIONS