Meeting Notes

ODOT TSM Field Technology Plan

Design + Data +Motor Vehicles Group - Needs Assessment Work Session #1

June 29, 2020

Microsoft Teams

ATTENDEES

- Jennifer Campbell, ODOT RICS
- Paul Burch, ODOT Pavements
- Joseph Bond, ODOT Bridge
- Calvin Brown, ODOT Commerce and Compliance
- Audrey Lawson, ODOT Commerce and Compliance
- Carla Phelps, ODOT Commerce and Compliance
- Steven Jessberger, FHWA
- Christopher Harris, ODOT TSM
- Chris Wright, ODOT TSM
- Paul Tiller, ODOT TSM
- Yi-Min Ha, Kittelson
- Alice Root, Kittelson
- Scott Beaird, Kittelson
- JR Wegehaupt, Quality Counts

MEETING NOTES

The following summarizes key discussion items during the Needs Assessment Work Session:

1. **Motor Carrier and Weight-in-Motion**
    a. Oregon collects taxes from the freight industry based on mileage. Data is collected to forecast generated revenue on heavy vehicles weighing more than 26,000 pounds.
    b. Weigh-in-Motion data from Commerce and Compliance such as volume and classification is extracted and process daily to be input into TCM. Chris Harris sees opportunities for co-locating equipment or adding equipment to create a more robust dataset.
    c. Motor Carrier currently maintains Weigh-in-Motion devices and license plate reading equipment for tracking and enforcement of proper size and weight compliance.
    d. Average annual daily counts are used for the freight industry to understand the impacts of highway projects, and whether to enforce permanent or temporary restrictions on the highway.
    e. Chris Harris would like to follow up on the Commerce and Compliance's contracted maintenance model, and the relationship with ITS for site and data management.

2. **Better Data Sharing**
    a. Several stakeholders highlighted that data is also needed on non-ODOT roadways and need for better traffic data sharing procedures with local agencies.
    b. Beside enabling the ability for agencies to better share traffic data, it is also important that the data is accessible for both ODOT and the participating agencies at a centralized location.
    c. ODOT TSM's migration to the MS2 platform may be an important element providing that centralized location for ODOT and participating local agencies to share traffic data.
    d. Jennifer Campbell highlighted several challenges when coordinating data sharing with non-ODOT agencies. These challenges include:
        i. Differences in data format.
        ii. Understanding the local functional classification systems.
        iii. Geolocating the data due to use of different linear referencing systems.
        iv. Data collection methodology and if complies with the ODOT Traffic Monitoring Guide, which is required for HMPS reporting.
    e. Paul Burch shared the importance for sharing data in a format that is usable and understandable. For pavement design, being able to download the data into an Excel spreadsheet for further manipulation would be useful.
    f. Steven Jessberger shared that Colorado DOT had implemented a process to share traffic data with local agencies, and found that approximately 30% of their data collection needs was fulfilled with local agency data.
    g. Steven Jessberger also shared that NYDOT has a program to loan data collection equipment to local agencies, on the condition that the data is shared with NYDOT. This allowed NYDOT and local agencies to pool resources together and share traffic data in a common data format. Don Crownover also notes that Montana DOT loans equipment to MPOs in return for data.

3. **Granularity –** Currently, every group in this work session utilizes the full 13 vehicle classification datasets. Many state DOTs (including Idaho DOT which could potentially be explored in upcoming interviews) are moving towards per-vehicle data, which helps states perform better quality control checks on the data, and allows for more granular types of analysis. To support this shift, DOTs are moving towards Inductive Loop Signature (ILS) technologies over piezo-electric sensors. Washington State DOT is currently looking into ILS technologies and MinnDOT recently published a research paper into ILS technologies Another type of granularity requested by multiple agencies is county level VMT data, although resourcing has been a challenge.

4. **Probe Data** – As agencies increase the number of permanent count stations, and as agencies purchase statewide probe datasets, there is an increasing need to compare/evaluate data between the two data sources. There is a desire to explore calibrating probe data using

permanent count stations and potentially obtaining continuous estimated traffic counts at locations without a permanent traffic count station.

5. **Workforce Skillset –** State DOTs are improving their data science and scripting capabilities (i.e. GIS, Python, R, Tableau) to streamline/improve the data process and reporting procedures. This is in response to an increasing number of different data types, need for more merging/fusion of data, higher granularity of data, and need to verify/validate third-party data sets. Although not mentioned during the discussion, Chris Wright notes that groups within ODOT (such as Traffic Signal Systems Unit, Commerce and Compliance and TSM) have very different position descriptions and staff classifications for technicians that maintain equipment. This, along with several proprietary vendors makes sharing resources difficult.
6. **Documentation** – To preserve institutional knowledge on traffic counting procedures, it is important for DOTs to document current practices and processes.