**DEPARTMENT OF TRANSPORTATION**

# Meeting Minutes: TPF-5 (334) Veta Enhancements & Technology Exchange (Meeting No. 13)

Date: August 27, 2020
Minutes prepared by: Rebecca Embacher
Location: Skype

## Attendance

Pooled Fund State Contacts:

| Participated | State | State Contact |
|:---:|---|---|
| ☒ | Alaska | Richard Giessel |
| ☐ | Alaska | Dan Gettman |
| ☐ | California | Ebi Fini |
| ☐ | California | Ragu Thangavelautham |
| ☐ | California | Chuck Suszko |
| ☐ | California | Blair Anderson |
| ☒ | Connecticut | Dave Howley |
| ☐ | Connecticut | John Henault |
| ☐ | Georgia | John Martin |
| ☒ | Illinois | Brian Hill |
| ☐ | Illinois | Chad Pink |
| ☒ | Maine | Ulrich Amoussou-Guenou |
| ☐ | Maine | Richard Bradbury |
| ☐ | Maine | Dale Peabody |
| ☐ | Maine | Casey Nash |
| ☒ | Minnesota | Rebecca Embacher |
| ☐ | Minnesota | Curt Turgeon |
| ☐ | Mississippi | Alex Middleton |
| ☒ | Missouri | Dan Oesch |
| ☐ | New York | Zoeb Zavery |
| ☒ | New York | Michael Heim |
| ☐ | North Dakota | Amy Beise |
| ☒ | North Dakota | Curt Dunn |
| ☐ | North Dakota | Eric Gaasland |
| ☒ | Ohio | Craig Landefeld |
| ☒ | Ohio | Adam Au |
| ☐ | Oregon | Larry Illg |
| ☒ | Oregon | Mike Stennett |
| ☐ | Pennsylvania | Dan Clark |
| ☒ | Pennsylvania | Sheri Little |

| Participated | | Contact |
|---|---|---|
| ☒ | Tennessee | Matt Chandler |
| ☐ | Tennessee | Brian Egan |

**Additional State Attendees:** John Siekmeier (MnDOT)

FHWA:

| Participated | Contact |
|---|---|
| ☒ | Steven Cooper |
| ☒ | Matt Corrigan |
| ☐ | Dennis Dvorak |
| ☐ | Richard Duval |
| ☒ | Kevin Kliethermes |
| ☐ | Antonio Nieves |
| ☐ | Jeff Withee |

The Transtec Group:

| Participated | Contact |
|---|---|
| ☒ | George Chang |
| ☒ | Jason Dick |
| ☐ | Amanda Gilliland |

# Decisions Made

- Pooled fund participants finalized which Veta Enhancements to move forward in Amendment #3.

# Action items

- Embacher | Clean up spreadsheet containing Veta Enhancements tasks to move forward in Amendment #3 and send out to pooled fund for one final review.
- Embacher – J. Dick – G. Chang | Complete Amendment #3 paper work and submit to contracts.

# Agenda

- Working Meeting | Go through "priority – ranked" wish list to determine which tasks to move forward in amendment.

# Next Meeting

Date:  TBD
Time:  12:30PM to 2:30PM CDT
Location:  Microsoft Teams
Agenda items:  TBD

# Meeting Notes

## Working Meeting

In advance to this meeting, pooled fund participants completed the following action items:

1. Reviewed master wish list and sent additional items to Embacher for inclusion and noted items that were no longer needed.

2. Embacher sent out updated master wish list to all pooled fund participants to rank top 10 priorities.

3. Pooled fund participants ranked top 10 priorities. Priorities were ranked from 2 – 11, with 2 being highest priority and 11 lowest priority. Item 1, was already included in the list, as this was a maintenance task that must be completed in the contract (*Coordinate system engine is no longer actively maintained. Migrate to a new engine [ArcGIS or PROJ] and revamp coordinate system architecture to improve performance and decrease time needed for new features and bug fixes*).

4. Embacher sorted wish list, from tasks noted as a highest priority to those with the lowest priority.

During meeting, Pooled fund participants discussed each Veta Enhancement to discern which items to move forward into the Amendment based upon budget and priorities. The following items were recommended for inclusion into Amendment #3:

| Category | Amendment 3 Task No. | Task Description |
|---|---|---|
| Data Management | D.1 | Support on-line webpage for data support & MP-39 technical support of standard file format to vendors |
| Data Management | D.2 | When downloading data, add ability to select which dates from the range should be used. (e.g., 2 months of data shows and user only needs to download one or more dates) |
| Data Management | D.3 | Coordinate system engine is no longer actively maintained. Migrate to a new engine (ArcGIS or PROJ) and revamp coordinate system architecture to improve performance and decrease time needed for new features and bug fixes. |
| Data Management | D.4 | Improve Performance (revamp storage; includes faster duplicate file detection) (bringing in data, saving, file management) |

| Category | Amendment 3 Task No. | Task Description |
|---|---|---|
| Data Management | D.5 | AASHTO MP39-19 Provision Updates for E-Ticketing |
| Mapping | D.6 | Allow choice between filtered and unfiltered data in the map search tool. |
| Mapping | D.7 | Search Enhancement – Ability to view the spot test, IC and PMTP measurements for one gridded location in a tabular format (i.e., where one right clicks or beneath a spot test location).  PMTP measurement, IC Pass 1, IC pass 2, IC pass 3... |
| Mapping | D.8 | Ability to view location boundaries on maps without having to select location filter.  See filter group boundaries when entire lift/centerline offset is selected or given filter group selected.  Be able to turn this feature on and off (similar to turning on and off the alignment file). Ability to view exclusion boundaries on maps without having to select exclusion filter. See filter group boundaries when entire lift/centerline offset is selected or given filter group selected.  Be able to turn this feature on and off (similar to turning on and off the alignment file). |
| Analyses | D.9 | Add ability to cancel and minimize analysis. |
| Filtering | D.10 | Allow multiple time filters. Add time exclusion filter. |
| Filtering | D.11 | Ability to rename filter group using filter group manager; operation filter would also be updated accordingly. Ability to edit a data lot after creation (all aspects of it) and auto update operation filter accordingly.  Numerically sort operation filters the same way data lots are after lot number edits or creation. Maybe re-organize as a table to allow for copying and pasting, like spot tests. |
| Filtering | D.12 | Account for high-accuracy PTMP data when using cold-edge filter (possibly split cold-edge and bracket filters into separate options) |
| Spot Tests | D.13 | Spot tests manager (add/remove/change test types, define units, include specification requirements, and define legend for spot test values, import/export test types) |
| Analyses | D.14 | Sublot Exclusion Calculations (similar to the last sublot [combine with adjacent sublot or keep independently for sublot immediately before and after exclusion) |
| Analyses | D.15 | Complete coverage analyses of data lots (filter groups) that do not have any data associated with it in order to calculate the required area (this can be used for monetary deductions for missing data). |
| Analyses | D.16 | Add heat loss curves chart (paving and rolling temperatures versus time). Add more data as time goes on, such as temperature from E-Ticket. |
| Reporting | D.17 | Thermal profiles: Improve paver stop display (handle overlapping stops, ensure stops align with data to improve readability) |

| Category | Amendment 3 Task No. | Task Description |
|---|---|---|
| Reporting | D.18 | Dashboards / Include additional reports (**e.g., PMTP-101-102 & IC-108 form**)<br>2. Bar Graph:  Thermal Coverage per Data Sublot (high accuracy PMTP systems) -  (different bar color based on percent coverage category).<br>3. Stacked bar chart - PMTP percent of sublots vs. data lot filter groups (splits indicative of thermal segregation category (Low, Moderate-Low, Moderate Severe, Severe)<br>5. Thermal Segregation Coverage Summary (material type, lift, number of sublots [in given categories], percent of sublots in given categories, net lane miles (total linear length of required data - excludes exclusions), price adjustment per lane mile, total price adjustment<br>6. Pie Chart of percent of sublots in given categories for #5. |
| Reporting | D.19 | Agency Review of Veta Project (PMTP & IC) - Filter Group Settings<br>o   User defined data/operation filter group settings (e.g., temperature filter, speed filter, compaction mode, exclusion filter, location filter, etc.). After creation of settings, ability to export and save and re-import again (similar to legend and filter group manager features).<br>§  Provide tabular listing of review items per filter group (e.g., temperature <250F used).  Include "None" for those filter groups without any review items.<br>§  Ability for contractor to add notes for given filter group settings. (e.g., **ICT-101 Form**)<br>§  Ability to Agency to approve filter group settings.<br><br>o   Import Agency start and end stationing for data lots (filter groups) (e.g., **ICT-106 form**)<br>§  Calculate difference between Agency start/end stationing with those used to create the location filters.<br>§  Allow user to define criteria for acceptable stationing difference (e.g., Review >= 1 ft)<br>§  Provide tabular report of filter group, start and end stationing for Veta location filter and Agency, include station differences, along with alerts for review items. (e.g., **ICT-102 form**)<br>§  Ability to Agency to approve location filter settings.<br><br>o   Import start and end stationing for exclusions (e.g., **ICT-106 Form**)<br>§  Same as for review for data lot station above.<br>§  Ability to Agency to approve exclusion filter settings.<br><br>o   Review of Analyses Settings – only needed in future, if settings ever becomes un-locked. |

| Category | Amendment 3 Task No. | Task Description |
|---|---|---|
| Reporting | D.20 | PMTP Method (e.g., PMTP-101-102 & IC-108 form)<br>§ PMTP **Data Sublot Tab**: Filter Group Name, County, Start Distance, Length, Standard Deviation, TSV Index, TSV Index Category, TSI, TSI Category, Price Adjustment<br>§ PMTP **Data Lot Tab**: Filter Group, County, Number of Sublots per thermal segregation category, Total Number of Sublots, Percent of Sublots per thermal segregation category, Data Lot (thermal profile) Length, price adjustment per data lot (i.e., filter group), cumulative price adjustment in order of filter group number sequence, price adjustment per lane mile<br>§ Similar reports needed for users of Range statistic<br>§ Percent Coverage reports needed for high accuracy PMTP systems, per data sublot and data lot, along with price adjustments |
| Reporting | D.21 | Project Summary (PMTP)<br>§ Material Type, lift, number of sublots [in given categories], percent of sublots in given categories, net lane miles (total linear length of required data - excludes exclusions), price adjustment per lane mile, total price adjustment |
| Misc. | D.22 | Veta Bug Fixes |
| Misc. | D.23 | Update User's Guide for Current Contract |

The above items were sent to pooled fund participants for final review to ensure that there were no errors in compiling this information. No concerns were noted, and therefore, the above tasks are included in the Amendment #3.

Embacher, Chang and J. Dick – will work on completing the Amendment #3 paper in hopes of getting it executed in October 2020.

## Budget

Currently, $457,019.12 has be received and will be put towards Amendment #3 Veta Enhancements. The following summarizes the contract funding to date:

| Veta Enhancement Contract | Fund | Accumulated Fund |
|---|---|---|
| Original | $ 170,003.72 | $ 170,003.72 |
| Amendment No. 1 | $ 281,186.22 | $ 451,189.94 |
| Amendment No. 2 | $ 323,979.56 | $ 775,169.50 |
| Amendment No. 3 | $ 457,019.22 | $ 1,232,188.72 |