2017 Change Order Process Review

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2017 Change Order Process Review

**Process Reviews**

- Utilized by FHWA to ensure all Federal-aid projects are carried out in compliance with applicable laws, regulations, and standards.
- Used to identify strengths and opportunities for improvement.
- At least one Process Review conducted per year.
2017 Change Order Process Review

North Dakota Division Office

Process Review

Change Order Process Review

March 2017

DRAFT REPORT
2017 Change Order Process Review

- Process Review Sections
  - Executive Summary
  - Background
  - Purpose and Objective
  - Scope and Methodology
  - Team Members
  - Observations and Recommendations
  - Successful Practices
  - Conclusion
  - Action Plan (if any)
  - Appendices
• Background
  – Identified risk for FHWA PY2017
    • “IF required processes are not followed and documented to determine eligibility, THEN project change orders may be ineligible for federal funding”
  – Financial Integrity Review & Evaluation (FIRE) Program Requirement.
    • At least one financial management review/year
• Purpose and Objective
  – Purpose – Determine if the perceived eligibility/environmental risks are real or not.
  – Objective 1 – To determine the root cause and federal aid eligibility of change orders.
  – Objective 2 – To determine if change orders altered the environmental impacts.
  – Objective 3 – To determine if change orders altered the environmental limits.
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• Scope and Methodology
  – Statistically accurate sampling method.
    • Of the total 298 change orders, 28 were reviewed to achieve a 90% confidence level with a 15% margin of error.
• Why Statistically Accurate Sampling
  – Not enough time to review all 298 change orders.
  – Able to infer meaning and insights from a small subset of data
    • Can be applied to a much larger group.
    • If 20% of the small subset has a certain issue then with 90% accuracy and 15% margin of error we can infer that 20% of the large group has the same issue.
• Change Order Selection
  – Placed all 298 change orders on a spreadsheet.
  – Inserted random number column.
  – Organized changes orders in the order of the random number.
  – The top 28 change orders were included in the review.
  – No other factors were used to select change orders.
## 2017 Change Order Process Review

### North Dakota Division Office

<table>
<thead>
<tr>
<th>Random Number Sort</th>
<th>PCN</th>
<th>Project</th>
<th>Remarks</th>
<th>REASON in CARS</th>
<th>CLASSIFICATION in CARS</th>
<th>What is the root cause of the change order?</th>
<th>Is the work on a federal aid route?</th>
<th>Is the federal aid cost share correct?</th>
<th>Was the appropriate funding source used?</th>
<th>Was the work addressed in the NEPA approval?</th>
<th>Was the work within the project’s NEPA evaluation limit?</th>
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<tbody>
<tr>
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<td>Change Approved In Field by Prof. Eng.</td>
<td>Field Change - Signs in Condition</td>
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<td>Yes</td>
<td>Yes</td>
<td>Particip. NHPP</td>
<td>Yes</td>
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<td>Yes</td>
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<td>NA</td>
<td>Yes</td>
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</table>
• The following Observations and Recommendations are DRAFT.
• NDDOT has not had a chance to review or comment on the process review.
• The final report will be available once the review has been closed out with NDDOT.
Observation
- 3 change orders were on local projects where the federal funding had a cap.
- Federal participating/non-participating determinations were not consistent.

DRAFT Recommendation
- All eligible costs should be considered participating even if projects have reached their federal cap.
• Language included in all change orders:
  – “If the federal funds authorized in the cost participation agreement with the local agency is exceeded and federal funds are not available for this change, the local agency will assume the total cost of this change order.”
• Observation
  – One change order removed a culvert that had been installed according to plans.
  – Field conditions were different than shown on the plans and the culvert didn’t function.

• DRAFT Recommendation
  – Field staff should verify field conditions are similar to the plans.
• Observation
  – One change order altered the environmental impacts by adding a grade raise. The project did not include additional environmental review for the grade raise.

• DRAFT Recommendation
  – When change orders increase the environmental impacts, additional environmental review may be needed.
• Observation
  – One change order altered the environmental limits by adding ½ mile to the length of the project.
  – The change order included additional environmental review for the added length.

• Recommendation
  – None needed.
• Other actions being considered as a result of this process review.
  – Changes to NDDOT’s Supplemental Specifications.
  – Updates to NDDOT’s Construction Records Manual
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• Questions?