Transportation Asset Management Plan (TAMP)

Amy Starr
Nebraska Department of Transportation
Outline

- TAMP Overview
- Risk – Identification
- Risk – Likelihood & Consequences
- Risk – Priority and Mitigation
What is the TAMP?

• The Transportation Asset Management Plan (TAMP) came about through requirements established by MAP-21 and FAST Legislation.

• Requirement for states to develop a risk-based asset management plan for the NHS to improve or preserve asset condition and system performances.

• Final Rules were established May 20, 2017.
TAMP Requirements – Guidance

Code of Federal Regulations

- 23 CFR 490
- 23 CFR 515
- 23 CFR 667
### § 490.311 Metric Thresholds in Final Rule

<table>
<thead>
<tr>
<th>Rating</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRI (inches/mile)</td>
<td>&lt;95</td>
<td>95-170</td>
<td>&gt;170</td>
</tr>
<tr>
<td>PSR* (0.0-5.0 value)</td>
<td>≥4.0</td>
<td>2.0-4.0</td>
<td>≤2.0</td>
</tr>
<tr>
<td>Cracking Percent (%)</td>
<td>&lt;5</td>
<td>CRCP: 5-10</td>
<td>&gt;10</td>
</tr>
<tr>
<td></td>
<td>Jointed: 5-15</td>
<td>&gt;15</td>
<td></td>
</tr>
<tr>
<td>Rutting (inches)</td>
<td>&lt;0.20</td>
<td>0.20-0.40</td>
<td>&gt;0.40</td>
</tr>
<tr>
<td>Faulting (inches)</td>
<td>&lt;0.10</td>
<td>0.10-0.15</td>
<td>&gt;0.15</td>
</tr>
</tbody>
</table>
TAMP Requirements - Minimums

§ 490.315 – Minimum Interstate Pavement Condition
• No more than 5% of Interstate in “Poor” Condition

§ 490.317 – Penalties
• State DOT must obligate NHPP & transfer STP funds

§ 490.411 – Minimum Condition for NHS Bridges
• Percentage of deck area of bridges classified as Structurally Deficient does not exceed 10.0% for 3 consecutive years.

§ 490.413 - Penalties
• State must obligate and set aside NHPP funds
§ 490.105 Establishment of performance targets.

(e)(2) Coordination. State DOTs shall coordinate with relevant MPOs on the selection of targets in accordance with 23 U.S.C. 135(d)(2)(B)(i)(II) to ensure consistency, to the maximum extent practicable.
TAMP Requirements – Key Dates

- **2018 April 30**: Initial draft turn-in (Plans and Processes)
- **2018 Oct. 27**: MPO’s must report established targets
- **2019 June 30**: Submission of fully compliant TAMP
- **2019 Oct. 1**: Penalty for non-compliance starts

*Recertification submittal every four years*
(a) Beginning on October 1, 2019, and in each fiscal year thereafter, if a State DOT has not developed and implemented an asset management plan consistent with the requirements of 23 U.S.C. 119 and this part, the maximum Federal share for National Highway Performance Program projects and activities carried out by the State in that fiscal year shall be reduced to 65 percent for that fiscal year.
TAMP Requirements - NDOT Performance Targets

- Pavements on Interstate System
- Pavements on the National Highway System non-Interstate
- Bridges on the National Highway System

NHS Pavements

NHS Bridges
National Highway System (NHS)

• Essential roads for United States mobility, economy and defense
• Goal is to optimize State use of Federal money, plan for risks
Nebraska has 4 Metropolitan Planning Organizations (MPO’s)

- Omaha Metro
- Lincoln Lancaster County
- Grand Island
- Sioux City
Agreeing to plan and program projects so that they contribute toward the accomplishment of the relevant State DOT target for that performance measure.

Option 1: Follow State DOT Targets

“Agreeing to plan and program projects so that they contribute toward the accomplishment of the relevant State DOT target for that performance measure.”

Option 2: Create Their Own Targets

“Committing to a quantifiable target for that performance measure for their MPO.”

§ 490.105 Target establishment options
MPO NHS Maps – Grand Island

GIAMPO
Grand Island Area Metropolitan Planning Organization

One NHS bridge - U104504130
MPO NHS Maps – Omaha

<table>
<thead>
<tr>
<th>Bridges On the NHS count</th>
<th>Bridges Not on NHS count</th>
</tr>
</thead>
<tbody>
<tr>
<td>44</td>
<td>300</td>
</tr>
</tbody>
</table>
No NHS bridges on Local System
MPOs in a Multi-State Area

• §490.105(f)(4)
  • Option 1: Follow State DOT targets for portion within each state
  • Option 2: Create some or all of your own targets
TAMP Requirements – Plan Highlights

Initial draft due April 30, 2018
TAMP Requirements – Plan Highlights

NDOT Asset Focus:

Possible Assets: Pavements, Bridges, Culverts, Overhead Signs, Tunnels, Lights, Traffic, Signage, Signals, ITS Devices, Noise Walls, Barriers, Facilities, etc.
## TAMP Requirements – NDOT Targets

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Performance Measure</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pavement</td>
<td>Weighted Average <strong>NSI</strong> for the interstate System</td>
<td>≥86</td>
</tr>
<tr>
<td></td>
<td>Weighted average <strong>NSI</strong> for non-Interstate NHS System</td>
<td>≥80</td>
</tr>
<tr>
<td>Bridges</td>
<td>% of bridges on the State system and NHS in good or fair condition.</td>
<td>≥95%</td>
</tr>
<tr>
<td></td>
<td>% of total deck area of bridges on the NHS classified as <strong>structurally deficient</strong>.</td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>
What is Nebraska Serviceability Index (NSI)?

- Average International Roughness Index
- Cracking Percentage
- Average Depth of rutting
- Average Height of Faulting
What is Nebraska Serviceability Index (NSI)?

<table>
<thead>
<tr>
<th>Rating</th>
<th>Condition</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Very Good</td>
<td>90 - 100</td>
<td>Pavement like new</td>
</tr>
<tr>
<td>Good</td>
<td>70 - 89.99</td>
<td>Several years of service life remaining</td>
</tr>
<tr>
<td>Fair</td>
<td>50 - 69.99</td>
<td>Few years of service life remaining</td>
</tr>
<tr>
<td>Poor</td>
<td>30 - 49.99</td>
<td>Candidate for rehabilitation</td>
</tr>
<tr>
<td>Very Poor</td>
<td>0 - 29.99</td>
<td>Possible replacement</td>
</tr>
</tbody>
</table>

NDOT TAMP Target: 86+ for Interstate
80+ for Non-Interstate NHS
TAMP must be Risk Based
**CFR 515.7-Risk (Definition)**

*Risk* means the positive or negative effects of uncertainty or variability upon agency objectives.

*Risk management* means the processes and framework for managing potential risks, including identifying, analyzing, evaluating, and addressing the risks to assets and system performance.
(1) Identification of risks that can affect condition of NHS pavements and bridges and the performance of the NHS.
(2) An assessment of the identified risks in terms of the likelihood of their occurrence and their impact and consequence if they do occur;
(3) An evaluation and prioritization of the identified risks;
(4) A mitigation plan for addressing the top priority risks;
(5) An approach for monitoring the top priority risks;
NDOT hosted 2-Day Executive Meeting

• Identify Risks
• Categorize Risks
• Assess Likelihood and Impact
• Establish Mitigation Strategies
Outline

- TAMP/Risk Overview
- Risk – Identification
- Risk – Likelihood & Consequences
- Risk – Priority and Mitigation
Risk Identification

**NDOT Targets & Objectives**
- What things over the next 10 years could cause this number to deteriorate or improve?

**NDOT’s 8 Strategic Goals**
- What areas will have big impacts over the next 10 years?

**If/Then Statements to Identify Risks**
- If our pavement materials are of poor quality, then the performance will be reduced, and costs will increase.

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<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Performance Measure</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pavement</td>
<td>NSI</td>
<td>≥84%</td>
</tr>
<tr>
<td></td>
<td>IRI</td>
<td>≥69%</td>
</tr>
<tr>
<td>Bridges</td>
<td>Good or Fair Condition</td>
<td>≥95%</td>
</tr>
<tr>
<td></td>
<td>Structurally Deficient</td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>

**NDOT Goals**
- Safety
- Fiscal Responsibility
- Environmental Stewardship
- Project Delivery
- Asset Management
- Mobility
- Communication, Coordination, Collaboration & Cooperation
- Workforce Development
Identifying Risks – Common Risk Areas

- Environmental Conditions
- High-Risk, High-Value Assets
- Financial
- Legal or Compliance
- Demand
- Information or Decision
- Operational
- Hostile Acts, Malfeasance, Accidents
Identifying Risks - Categories

**RESPONSIBILITY:** Executives
**TYPE:** Risks that impact achievement of agency goals and objectives and involve multiple functions
**STRATEGIES:** Manage risks in a way that optimizes the success of the organization rather than the success of a single business unit or project.

**RESPONSIBILITY:** Program managers
**TYPE:** Risks that are common to clusters of projects, programs, or entire business units
**STRATEGIES:** Set program contingency funds; allocate resources to projects consistently to optimize the outcomes of the program as opposed to solely projects.

**RESPONSIBILITY:** Project managers
**TYPE:** Risks that are specific to individual projects
**STRATEGIES:** Use advanced analysis techniques, contingency planning, and consistent risk mitigation strategies with the perspective that risks are managed in projects.

*Figure 1. Levels of Enterprise Risk Management (Agency, Program and Projects). Source: TRB Paper*
## Risk Matrix

### Risk Matrix with Impact and Likelihood Definitions

<table>
<thead>
<tr>
<th>Impact</th>
<th>Potential for multiple deaths &amp; injuries, substantial public &amp; private cost.</th>
<th>Potential for multiple injuries, substantial public or private cost and/or foils agency objectives.</th>
<th>Potential for injury, property damage, increased agency cost and/or impedes agency objectives.</th>
<th>Potential for moderate agency cost and impact to agency objectives.</th>
<th>Potential impact low and manageable with normal agency practices.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catastrophic</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
<td>Very High</td>
<td>Very High</td>
</tr>
<tr>
<td>Major</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
<td>Very High</td>
</tr>
<tr>
<td>Moderate</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Minor</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
<td>Medium</td>
</tr>
<tr>
<td>Insignificant</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Low</td>
<td>Medium</td>
</tr>
</tbody>
</table>

### Likelihood

<table>
<thead>
<tr>
<th>Rare</th>
<th>Unlikely</th>
<th>Likely</th>
<th>Very Likely</th>
<th>Almost Certain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than once every 10 years</td>
<td>Once in more than 3 but less than 10 years</td>
<td>Once between 1-3 years</td>
<td>Once a year</td>
<td>Several times a year</td>
</tr>
</tbody>
</table>

- **High** indicates a high risk of impact and likelihood.
- **Very High** indicates an extremely high risk of impact and likelihood.
- **Medium** indicates a moderate risk of impact and likelihood.
- **Low** indicates a low risk of impact and likelihood.
Outline

- TAMP/Risk Overview
- Risk – Identification
- Risk – Likelihood & Consequences
- Risk – Priority and Mitigation
## Risk Matrix

<table>
<thead>
<tr>
<th>Risk Event</th>
<th>Consequence</th>
<th>Likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statutory regulations that increase pavement deterioration (ex. Heavier legal loads)</td>
<td>FHWA is discussing increasing loads on the Interstate and state legislature has proposed this the last two years, and passed an increase for ag.</td>
<td>likely</td>
</tr>
<tr>
<td>Increase in construction funding by 50 Million for 6 years</td>
<td>FAST Act will be done in 2020, and legislatures are discussing an increase in infrastructure.</td>
<td>likely</td>
</tr>
<tr>
<td>Decrease in construction funding by 50 Million for a year</td>
<td>Historically the construction program has been stable at around 500 million per year</td>
<td>unlikely</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Mitigation or Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>Utilize systems to prioritize spending and use life cycle cost analysis. Bring awareness on how this change would effect road deterioration and construction/maintenance costs.</td>
</tr>
<tr>
<td>Medium</td>
<td>Have projects ready before the planned funding.</td>
</tr>
<tr>
<td>Medium-Low</td>
<td>Utilize prioritization set by latest Funding Distribution Team.</td>
</tr>
</tbody>
</table>
NDOT Annual Construction Program Development
NDOT Expenses

- Overhead: 3%-7%
- Road Maintenance (Crack Seals, Armor Coats, Microsurfacing): 18%-23%
- Construction (Resurfacing, New Construction, Expansion): 70%-76%

2016 Expenditures $860 million
The Nebraska Surface Transportation Program (STP)
- Updated Annually
- Meets State Requirement
- Includes:
  - 1 Year Construction Program
  - 5 Year Planning Program
  - Funding Sources and Program Size
  - Highlights changes in our project lists since last year

Statewide Transportation Improvement Program (STIP)
- 4 Year Planning Document listing all federal funded, or regionally significant projects
- Required by Federal Govt. (USDOT)
State Construction Program Documents

The Nebraska Surface Transportation Program (STP)

Webpage contains a GIS Map and PDF of the Program Book

Statewide Transportation Improvement Program (STIP)

Http://dot.nebraska.gov/projects/publications/stip/
Webpage contains STIP summary, current STIP, pending STIP amendments and Guidelines
Links to MPO Transportation Improvement Plan (TIP)
Construction Program Incorporates:

- District Highway Restoration Program
- Bridge Restoration Program
- Interstate Restoration Program
- Safety Program
- ITS Program
- Capital Improvement (Expansion) Program
Funding

As of March 1, 2017
USDOT Federal Aid Funding

**Apportionment:**
Funds allocated from a multi-year bill to a state by category, by year
(SAFETEA-LU, MAP-21, FAST Act)

**Spending Authority/Obligation Authority (OA):**
Fed Gov’t limits how much of the apportionment a state can spend each year
(October-September)

**August Redistribution**
Opportunity each summer to compete for more OA, if you can spend it by September
Has enabled NDOT to spend $128m more of our apportioned funds since 2012
Federal Aid Funding

• Authorized to spend $272m through September 2018

• In July 2018 we will request August Redistribution

• Executing strategies to Avoid impending Rescission in 2019 if Congress does not prevent it
  • Nebraska was estimated to lose $50m based on apportionment balances in 2016
State Funds

• Sources:
  • Motor Fuel Tax
  • Motor Vehicle Registrations
  • Motor Vehicle Sales Tax
  • General Fund Sales Tax

• Revenue projections are stable

• State is working through 2 Year budget
  • Went into affect July 1, 2017
NDOT Construction Program Development
NDOT Construction Program Size

Annually set based on funding projections and NDOT cash flow

**Cash Flow**

Monthly forecast of cash balances for the next 4 years

**Basic Rules:**
- Cover Employee Wages
- Pay Operating Expenses
- Pay Contractors
- Invest as much as possible in roads and bridges
- Emergencies will happen
NDOT Construction Program

- $460-$600 million/year
- 95-120 Projects let to construction contract/year
- Over 600 state projects and 100 local projects in delivery
  - Planning, Design, NEPA, Right of Way
- Annually let between 100-130 projects to contract
- Approximately 900 of 2200 employees are dedicated to Project Delivery
  - Each project is assigned a Delivery Team 12-60 people depending on complexity of the project.
  - Most projects have nearly 200 delivery tasks assigned to employees
# Annual Construction Program

<table>
<thead>
<tr>
<th>Season</th>
<th>Action</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td>Project Delivery Risk Assessment</td>
<td>Condition Assessment of Roads and Bridges</td>
</tr>
<tr>
<td>Fall</td>
<td>Set a preliminary program size: Interstate, NHS, State Hwy, Bridges, Capital Improvement, Intelligent Transportation Systems, Safety</td>
<td>Balance different Funding types with programs and eligible projects</td>
</tr>
<tr>
<td>Winter</td>
<td>Monitor project estimates changes and cash flow (influenced by emergencies, change orders, over/under runs, lawsuits, revenue)</td>
<td>Make program size adjustments</td>
</tr>
<tr>
<td>Spring</td>
<td>Finalize Project Estimates and Programs</td>
<td>Prepare Program Book and GIS Map</td>
</tr>
<tr>
<td>July</td>
<td></td>
<td>Publish Surface Transportation Program Book (Includes 1-Year Construction and 5-Year Planning Program)</td>
</tr>
<tr>
<td>Season</td>
<td>Action</td>
<td>Result</td>
</tr>
<tr>
<td>--------</td>
<td>------------------------------------------------------------------------</td>
<td>----------------------------------------------------------</td>
</tr>
<tr>
<td>Summer</td>
<td>Project Delivery Risk Assessment Condition Assessment of Roads and Bridges</td>
<td>Possible funding year and letting date changes</td>
</tr>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Winter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>July</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annual Condition Assessment

(a) Inertial profiling van
(b) Profiling van interior computer monitor
NDOT TAMP

Inspection Rating/Imaging

Maintenance and/or Resurfacing-Reconstruction

Data Analysis

Decision Making
Data Used to Identify Project Strategies

[Image of the Pavement Optimization Program interface]

- **Pavement Management Data**
  - Statewide
  - District
    - District
  - Highway
    - Highway
  - Highway within a District
    - District
    - Highway

**Section Type**
- Pavement Sections
- Needs Sections
- Recreation Roads

**Highway System**
- All Systems
- Intermittent
- Priority Commercial
- Expressway
- National Highway System (NHS)

**On-Off System**
- On System
- Off System

**Interstate**
- No Filter
- Interstate Only

**Load Dates**
- Management Load Date

** Pavement Section Note:**
In an effort to create project sized sections we have combined previously defined sufficiency sections.

**Needs Section Note:**
These sections were previously defined as ‘sufficiency sections’. These are typically smaller sections than the pavement sections. Needs sections are defined by changes in width, surfaced shoulder, corporate limits, project limits, future traffic.
Pavement Optimization Program
Current Condition of Highways

Figure 2.3 Percent of miles on NHS rated Good or Very Good based on NSI > 70
## Candidate Lists

### District 2

**Pavement Sections**

Selected Projects Based on 10 Year Life Cycle Cost Analysis

Sorted by Hwy and Ref Post

Selected Candidate Years: 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028

Selected Strategies: MLS4C, RS-AC, MLS3PCC, RH-PCC

<table>
<thead>
<tr>
<th>HWY NUM</th>
<th>BEGIN REF. POST</th>
<th>END REF. POST</th>
<th>LANE DIR</th>
<th>LENGTH</th>
<th>LOCATION</th>
<th>RANK</th>
<th>STRATEGY</th>
<th>CANDIDATE YEAR</th>
<th>EST. COST</th>
<th>NSI BEFORE STRATEGY</th>
<th>NSI AFTER STRATEGY</th>
<th>PROGRAM YEAR</th>
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</thead>
<tbody>
<tr>
<td>001</td>
<td>26.06</td>
<td>26.68</td>
<td>B</td>
<td>0.62</td>
<td>MURRAY-JCT US34/US75</td>
<td>3.93</td>
<td>RS-AC</td>
<td>2019</td>
<td>$295,200</td>
<td>28.71</td>
<td>100.00</td>
<td>2019</td>
</tr>
<tr>
<td>006</td>
<td>341.35</td>
<td>345.38</td>
<td>B</td>
<td>4.02</td>
<td>PLATTE RIVER BR-JCT N31</td>
<td>2.19</td>
<td>RS-AC</td>
<td>2023</td>
<td>$1,937,149</td>
<td>64.38</td>
<td>100.00</td>
<td>2024</td>
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<tr>
<td>006</td>
<td>345.38</td>
<td>349.02</td>
<td>D</td>
<td>3.73</td>
<td>JCT N31-GRETNA</td>
<td>1.65</td>
<td>RH-PCC</td>
<td>2027</td>
<td>$1,436,650</td>
<td>77.76</td>
<td>100.00</td>
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<tr>
<td>006</td>
<td>360.40</td>
<td>363.43</td>
<td>A</td>
<td>3.01</td>
<td>OMAHA</td>
<td>2.00</td>
<td>MLS4C</td>
<td>2023</td>
<td>$796,145</td>
<td>77.58</td>
<td>96.00</td>
<td></td>
</tr>
<tr>
<td>006</td>
<td>360.40</td>
<td>363.43</td>
<td>D</td>
<td>3.01</td>
<td>OMAHA</td>
<td>2.56</td>
<td>MLS3AC</td>
<td>2027</td>
<td>$796,145</td>
<td>71.22</td>
<td>96.00</td>
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<tr>
<td>006</td>
<td>365.74</td>
<td>369.05</td>
<td>A</td>
<td>1.20</td>
<td>OMAHA</td>
<td>1.96</td>
<td>MLS3AC</td>
<td>2027</td>
<td>$372,000</td>
<td>77.53</td>
<td>96.00</td>
<td></td>
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<tr>
<td>006</td>
<td>365.74</td>
<td>369.05</td>
<td>D</td>
<td>1.20</td>
<td>OMAHA</td>
<td>1.99</td>
<td>MLS3AC</td>
<td>2027</td>
<td>$372,000</td>
<td>77.49</td>
<td>96.00</td>
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<tr>
<td>006</td>
<td>366.95</td>
<td>369.27</td>
<td>A</td>
<td>1.34</td>
<td>OMAHA</td>
<td>4.17</td>
<td>RH-PCC</td>
<td>2019</td>
<td>$773,650</td>
<td>30.68</td>
<td>100.00</td>
<td></td>
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<tr>
<td>006</td>
<td>366.95</td>
<td>369.27</td>
<td>D</td>
<td>1.34</td>
<td>OMAHA</td>
<td>3.45</td>
<td>RH-PCC</td>
<td>2019</td>
<td>$773,650</td>
<td>43.63</td>
<td>100.00</td>
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<tr>
<td>006</td>
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<td>371.45</td>
<td>A</td>
<td>3.16</td>
<td>OMAHA</td>
<td>2.08</td>
<td>RS-AC</td>
<td>2019</td>
<td>$1,706,460</td>
<td>67.50</td>
<td>100.00</td>
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<tr>
<td>006</td>
<td>368.27</td>
<td>371.45</td>
<td>D</td>
<td>3.16</td>
<td>OMAHA</td>
<td>2.08</td>
<td>MLS3AC</td>
<td>2023</td>
<td>$489,600</td>
<td>76.14</td>
<td>96.00</td>
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<tr>
<td>006</td>
<td>371.45</td>
<td>371.53</td>
<td>B</td>
<td>0.06</td>
<td>JCT 006R</td>
<td>1.94</td>
<td>RS-AC</td>
<td>2019</td>
<td>$32,400</td>
<td>67.56</td>
<td>100.00</td>
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<tr>
<td>006</td>
<td>371.53</td>
<td>373.28</td>
<td>A</td>
<td>1.79</td>
<td>JCT 006R-JCT 1460</td>
<td>2.01</td>
<td>RS-AC</td>
<td>2027</td>
<td>$1,286,800</td>
<td>67.50</td>
<td>100.00</td>
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<tr>
<td>006</td>
<td>371.45</td>
<td>373.28</td>
<td>D</td>
<td>1.79</td>
<td>31st-Missouri River OMAHA</td>
<td>4.00</td>
<td>RH-PCC</td>
<td>2019</td>
<td>$1,378,300</td>
<td>33.64</td>
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<tr>
<td>030</td>
<td>424.00</td>
<td>426.09</td>
<td>A</td>
<td>3.19</td>
<td>FREMONT BYPASS</td>
<td>1.94</td>
<td>RH-PCC</td>
<td>2019</td>
<td>$1,642,650</td>
<td>74.43</td>
<td>100.00</td>
<td>2020</td>
</tr>
</tbody>
</table>
# Annual Construction Program

<table>
<thead>
<tr>
<th>Season</th>
<th>Action</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td>Project Delivery Risk Assessment Condition Assessment of Roads and Bridges</td>
<td>Possible funding year and letting date changes</td>
</tr>
<tr>
<td>Fall</td>
<td>Set a preliminary program size</td>
<td>Balance funding categories and projections with eligible projects</td>
</tr>
<tr>
<td>Winter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>July</td>
<td></td>
<td></td>
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<td>Monitor project estimates changes and cash flow</td>
<td>Make program size adjustments</td>
</tr>
<tr>
<td>Spring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>July</td>
<td></td>
<td></td>
</tr>
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<td>Season</td>
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<td>Result</td>
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<tr>
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</tr>
<tr>
<td>Winter</td>
<td>Monitor project estimates changes and cash flow</td>
<td>Make program size adjustments</td>
</tr>
<tr>
<td>Spring</td>
<td>Finalize Project Estimates and Balance Programs</td>
<td>Prepare Program Book and GIS Map</td>
</tr>
<tr>
<td>July</td>
<td>Publish Surface Transportation Program Book</td>
<td>(Includes 1-Year Construction and 5-Year Planning Program)</td>
</tr>
</tbody>
</table>
What’s Next?
Strengthen

Connections between Delivery and Construction

Project and Program Management

- Cost
- Scope
- Time
Restructure

Create a Super Team for Each District

Align Delivery Staff by District
Super Team Goals

• Diversify staff knowledge in technical areas outside of your expertise
• Serve as stewards of the approved scope, cost and schedule for Local and State Projects
  • Get projects caught up
  • Consider proposals that change approved scope cost or schedule
  • Evaluate consequences and benefits to project and program
  • Consult affected Delivery Team members and Program Managers
• Assess Risks
• Recommend and implement mitigation
Accountability

Change Control Committee

Super Team

Project Delivery Team
Tools for Accountability

New Performance Measures and Dashboards

New Tools
## Project Delivery Dashboard

### Cost

<table>
<thead>
<tr>
<th>Published Estimate</th>
<th>Current Estimate</th>
<th>Estimate Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3.85M</td>
<td>$3.90M</td>
<td>$(54,944)</td>
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</table>

### Estimate History

<table>
<thead>
<tr>
<th>Estimate Status Code</th>
<th>Estimate Amount</th>
<th>Estimate Status Date</th>
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</thead>
<tbody>
<tr>
<td>30</td>
<td>$3,846,487.11</td>
<td>3/8/2017</td>
</tr>
<tr>
<td>45</td>
<td>$3,904,944.52</td>
<td>10/13/2017</td>
</tr>
</tbody>
</table>

### Scope

**Project Scope**

3R Millfill 4" and 4 bridge repairs.

**Critical Coordination**

2017/06/07: PY18 PoDI - ENVR; FHWA TE is Mary Burroughs.
Working Days updated 9/22/17.

**Risks**

2018/03/14: TI: L QA: L CY: 19. PoDI for Envr. CE-2 is with Jon for internal review. ROW cert will be done in the next week or so.

### Schedule

- **Project Status**: -1.3
- **Planning Status**: -3.3
- **Design Status**: -0.4
- **Environmental Status**: -1.3
- **ROW Status**: 0.0
## Planning

<table>
<thead>
<tr>
<th>CN</th>
<th>Planning Task</th>
<th>Planning Task Name</th>
<th>Planning Resource Name</th>
<th>Late Start Date</th>
<th>Planning Task Duration</th>
<th>Planning Task Actual Start Date</th>
<th>Planning Task Completed Percent</th>
<th>Critical Task Indicator</th>
<th>Key Task Indicator</th>
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</thead>
<tbody>
<tr>
<td>61605</td>
<td>5213</td>
<td>PM REVIEW (STEP 14)</td>
<td>Cindy Hoslter</td>
<td>2017-08-17</td>
<td>86.00</td>
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<td>Y</td>
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<tr>
<td>61605</td>
<td>5229</td>
<td>GROUND SURVEY DETERMINATION</td>
<td>Barbara Gerbino-Bievins</td>
<td>2017-04-26</td>
<td>100.00</td>
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<td>N</td>
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<tr>
<td>61605</td>
<td>5231</td>
<td>GROUND SURVEY</td>
<td>Kitty Riggins</td>
<td>2018-04-13</td>
<td>15.00</td>
<td>2017-11-13</td>
<td>20.00%</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>61605</td>
<td>5231</td>
<td>GROUND SURVEY</td>
<td>Scott Haynes</td>
<td>2018-04-13</td>
<td>15.00</td>
<td>2017-11-13</td>
<td>20.00%</td>
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<td>Y</td>
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<tr>
<td>61605</td>
<td>5234</td>
<td>PROCESS SURVEY DATA</td>
<td>Scott Haynes</td>
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<td>2018-05-07</td>
<td>0.00%</td>
<td>Y</td>
<td>N</td>
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</tbody>
</table>