Performance Measurement Guidance for the

Bridge Investment Program (BIP) Discretionary Grant Program

Background

The Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 C.F.R. part 200) require the measurement of grant performance including a showing of the achievement of program goals and objectives. Under 2 CFR 200.301(a), as a condition of a BIP grant, the FHWA requires each BIP grant recipient to collect and report to the FHWA information on the project's performance based on performance indicators FHWA identifies related to program goals.

Purpose

This document provides consistency to develop, measure, and report appropriate project performance measures.

Process:

Selection of Performance Measures: The Federal Highway Administration (FHWA) will work with the grant recipient to establish and recommend one to three performance measures that will enable FHWA to measure and evaluate the outcomes of the individual grant, relative to the BIP selection criteria. Every BIP grant application highlighted how the BIP project advanced appropriate long-term program objectives. However, it is not necessary that every long-term objective have a corresponding performance measure. The measures chosen for each project should reflect the measures most relevant to the grant application. The BIP does not prescribe reporting a set number of measures for each project; instead, FHWA and grant recipients should develop one to three meaningful measures that address the principal elements of the grant recipient's original grant application. Generally, one to three measures are appropriate for most projects; however, a greater number of measures may be used on a case-by-case basis.

The level of effort required, and data objectivity and availability, should be considered in the measurement selection process. The measurement frequency and period depends on the measure. Frequency and period of some standard measures are included in Table 1.

Grant projects, whenever possible, should pursue commonality in the types of measures used so that individual project level metrics may be aggregated for program-level assessment. The FHWA would like to tie the project-level performance measures to the BIP selection criteria: State of Good Repair, Safety, Mobility and Economic Competitiveness, Environment, Quality of Life, and Innovation. Under each category, individual project level performance measures have been developed, see Table 1. The FHWA also established a predetermined set of metrics within those categories that can be used by the grant recipients as they develop project-level measures. If, in the development of performance measures for a project, the grant recipient wishes to create a new measure, the FHWA will consider the addition.

Performance Measurement Plan: All BIP grant agreements contain an attachment with a performance measurement plan which details the performance measures that will be collected,

how data will be collected, the definition and other project-specific methodology or stipulations, the project study area, the data measurement and collection period, and the reporting period and frequency.

Baseline: The baseline report establishes a performance measure baseline for comparison. Baseline data should be measured and reported prior to project construction (on or before the Baseline Measurement Date and the Baseline Report Date that are stated in the grant agreement). In addition to Baseline measurement, the Baseline report should include a narrative discussion of how the measures were determined and will be measured, including data sources, assumption, variability, and the estimated level of precision.

The Baseline Report should include the estimated level of progress that constitutes project effectiveness relative to the measures (i.e., estimates of anticipated improvement respective of the chosen measure). For most projects, success was defined in the BIP application as part of the discussion of outcomes and/or the Benefit-Cost Analysis.

Finally, FHWA recognizes that the selected performance measures quantify, to the extent possible, impacts of the BIP investment or are proxy measures for impacts. FHWA also acknowledges other factors such as the state of the economy, population growth, growth in jobs and income, weather, and natural or human disasters may affect project outcomes. The Baseline report should include a discussion of local or regional factors that may impact the outcomes of the BIP project.

Post-construction Performance Reports: Post-construction performance reports should be submitted annually – by January 31st for the prior year, with information ultimately covering three calendar years after project substantial completion (details below). While the reporting is annual, some performance measures may be measured quarterly.

For each performance measure with quarterly measurement frequency, the Recipient should collect data for that performance measure for each of 12 consecutive calendar quarters, beginning with the first calendar quarter that beings after the Project substantial completion date at least once during the quarter.

For each performance measure with annual measurement frequency, the Recipient should collect data for that performance measure on at least three separate occasions: (i) once during the four consecutive calendar quarters that begin after Project substantial completion date, (ii) once during the fourth calendar quarter after the first collection; and (iii) once during the eighth calendar quarter after the first collection.

Not later than January 31st each year, the Recipient shall submit to FHWA a Post-construction Performance Measurement Report containing the data collected in the previous calendar year and stating the dates when the data was collected.

Each Annual Post-construction Performance Report should build upon previous reports by including a table with new measurement values along with previously reported values so that trends can be assessed. Reports should include raw data but grant recipients may

provide a narrative discussion on project success and the influence of other factors on the measures. As needed, the Annual Post-construction Performance Reports should include a discussion of local or regional factors that may impact the outcomes of the BIP project.

Project Outcomes Report: Not later than January 31st after the final year of data collection (three calendar years after project substantial completion), the recipient should submit to FHWA a final Project Outcomes report containing:

1) A narrative discussion detailing project successes and the influence of external factors on project expectations;
2) All baseline and post-construction performance measurement data that the Recipient reports in the Baseline Performance Measurement Report and the Post-construction Performance Measurement Reports; and
3) An ex post examination of project effectiveness relative to the baseline data that the Recipient reported in the Baseline Performance Measurement Report.

Submitting Report: Currently, grant recipients should submit their report to their local FHWA Division Office, copying BridgeImprovementProgram@dot.gov.

Conclusion

The FHWA is committed to monitoring performance of Federally funded projects, and particularly grants that were awarded on a merit basis. In addition to best practices, Federal grant performance is required under 2 CFR 200 subpart D and will support the financial stewardship objectives of the Office of Management and Budget (OMB), the Government Accountability Office (GAO), and the Justice40 initiative under Executive Order 13985, among other initiatives.

Performance data provided by grant recipients will be aggregated by FHWA to assess overall BIP program performance and key benefits. While performance measurement compliance is required under the grant agreement, recipients should be assured that the content of Post-construction Performance data is for information only and will not be considered in FHWA decisions to terminate an award.

Please see next page for Appendix: Table 1.

Table 1: BIP Performance Measures

Note: these measures represent a menu of optional measures based on the BIP program goals and rating criteria. Recipients may propose any of the following measures they believe is most relevant to their project. Recipients may also propose measures to align with the project and program objectives.

Measure	Unit Measured	Measurement Frequency	BIP Program Objective	Definition
Planning Grant	Project eligible to apply for a Large Bridge or Bridge grant.	Annual	BIP Planning Grant Objective	Whether the BIP Planning grant for planning, feasibility analysis, and or revenue forecasting is associated with the development of a project eligible to apply for a BIP Large Bridge or Bridge grant.
Safety	Crashes	Annual	Safety	Crash numbers will be measured, reported, and identified by the following severity categories: fatal, serious injury, and injury crashes within an area of influence for the bridge(s)
Average Daily Traffic	Vehicles	Quarterly	Quality of Life	The total volume of vehicle traffic on a bridge or segment of highway including the bridge per day as defined by the project study area.
Average Daily Truck Traffic	Vehicles	Quarterly	Mobility and Economic Competitiveness	The total volume of truck traffic on a bridge or segment of highway including the bridge per day as defined by the project study area.
Freight Traffic	Gross Tons	Quarterly	State of Good Repair, Mobility and Economic Competitiveness	The movement of gross tonnage of freight, including the weight of the good minus the tare weight of the transport conveyance.
Reliability	Events Mitigated	Annual	State of Good Repair, Environment	Examine and report on the occurrence of natural and manmade events at the bridge location. Report the effectiveness of protection activities or new structures to

				mitigate or eliminate impacts from the event.
Bridge Condition	NBI Ratings	Annual	State of Good Repair	Examine and report on the condition of the bridge(s) using FHWA performance measures for bridges classified in Good, Fair and Poor condition by deck area.
Innovation	Savings	Annual	Innovation	Examine and report on savings as a result of innovative designs or construction practices. Provide a comparison of costs utilizing traditional design or construction practices with the costs or time savings of the project.
Maintenance Costs	Dollars	Annual	State of Good Repair	Examine and report on maintenance costs to maintain the bridge(s) in a serviceable and operable condition.