

## Policy on Local Program Bridge Approaches

(July 2011)

### Background

FHWA limits local bridge approach costs to only those approach costs that are necessary to render the bridge serviceable (to reach the attainable touchdown points using current standards). The reason for this eligibility restriction is that local bridge funds are meant for bridge work only. If bridge funds are used for extended approaches or other non-bridge work then there are fewer local bridges that can be replaced or rehabilitated. For projects on the Federal-aid system (functionally classified above a minor collector), FHWA allows for other eligible funding (such as STP funds) for extended bridge approaches. However, for many local bridges, the roadway is not on the Federal-aid system and there are no federal funds available for bridge approach work beyond that which is described above.

On a program level, FHWA has determined that local bridge approach costs should amount to no more than 10% of the cost for constructing the bridge. It is recognized that there will be some bridges with higher approach costs and some with lower costs, so this is a target average. As such, FHWA will generally ask for a justification for the approach costs for any local bridge project where the approach costs exceed 15%. Sometimes there are very legitimate reasons for the higher approach costs, particularly if there is a bridge replacement that involves increased structure elevation and/or elimination of substandard geometrics associated with the structure. However, often times the approach costs are due to a decision to include logical and reasonable approach roadway work up to a nearby intersection or other practical ending point. While it may make sense to end the approach roadway work at such a location, it doesn't mean that it is eligible for federal funding.

All acknowledge that this can be confusing and that the locals want to end their approach work where it makes the most sense. However, FHWA has to enforce the eligibility restrictions of the funds, and the intent of local bridge funds is to replace and rehabilitate structures, so the eligibility is limited to that purpose.

### Process for Determining Bridge Approach Length Eligible for Federal Funding Work

Analyzing bridge approach length justification early in the process helps to prevent the expenditure of design funds on ineligible construction concepts. As discussed in 23 Code of Federal Regulations (CFR) § 650.405(c):

*“...the costs of long approach fills, causeways, connecting roadways, interchanges, ramps, and other extensive earth structure, when constructed beyond the attainable touchdown point, are not eligible under the bridge program.”*

If long approaches are anticipated this must be identified at concept definition and scoping and prior to the approval of the project in the Local Bridge Program. We must ensure the use of good design practice to determine the appropriate attainable touchdown point. Long approaches to correct major safety deficient geometrics must be reviewed and approved by FHWA for the project to be able to expend federal funds.

A new process will be used to obtain approval for bridge approach lengths. This process separates bridge projects into three categories: short, medium, and long approaches. This process uses total approach length, which is equal to the sum of approach lengths on either side of the bridge.

At program cycle project application review, if approaches are anticipated to be long (600 feet or greater), concurrence from the FHWA Major Projects Manager is required prior to the region Local Program Manager (LPM) submitting the project for program approval.

During preliminary project design, medium and long approaches, (300 feet or greater), approach costs must be justified before beginning final design. The project designer shall prepare an approach cost justification. The justification must be approved before federal construction funds are authorized.

### **Bridge Replacement Short Approaches - Total Approach Lengths are Less than 300 feet**

The following will apply if it is determined at project scoping that approach lengths of less than 300 feet are expected:

- An approach length justification is not required.
- Documentation shall be included in the Design Study Report (DSR).

### **Bridge Replacement Medium Approaches - Total Approach Lengths are Between 300 and 600 feet**

The following will apply if it is determined at project scoping that approach lengths between 300 and 600 feet are expected:

- An approach length justification is required. (See submittal process in the “Calculation and Documentation of Approach Costs and Justification” section.) The approach cost justification shall be submitted to the Management Consultant (MC). If the justification shows that the approach costs are

less than or equal to 15% of the total project cost and the MC recommends approval, the Local Program Project Manager (LPPM) approves. If the approach costs are more than 15% of the total project cost, the justification must be recommended by the MC and LPPM and transmitted to the appropriate FHWA Field Operations Engineer for approval and to support authorization of the construction project.

- The justification and approvals shall be documented in the DSR.

**Bridge Replacement Long Approaches - Total Approach Lengths Greater than 600 feet**

The following will apply if it is determined at project scoping that approach lengths greater than 600 feet are expected:

- Concurrence from the FHWA Major Projects Manager is necessary before the project can be approved in the Local Bridge Program. WisDOT must consult with the FHWA representative to discuss the project concept and obtain concurrence in writing or e-mail prior to proceeding. Once the project has concurrence, then the project can be approved in the Local Bridge Program.
- An approach cost justification must be created, recommended for approval by the MC and LPPM, and then approved by the appropriate FHWA Field Operations Engineer. (See submittal process in the "Calculation and Documentation of Approach Costs and Justification" section.)
- The justification and approvals shall be documented in the DSR.

The table below summarizes when concurrence or justification is needed depending upon the approach lengths.

Approach Length	Needs Preliminary Concurrence from FHWA	Needs WisDOT approval of approach cost justification	Needs FHWA approval of approach cost justification
Under 300 feet	No	No	No
Between 300 and 600 feet, approach costs less than or equal to 15% of total costs	No	Yes	No
Between 300 and 600 feet, approach costs greater than 15% of total costs	No	Yes	Yes
Greater than 600 feet	Yes	Yes	Yes

**Calculation and Documentation of Approach Costs and Justification**

When the total approach length is 300 feet or greater the designer must determine the approach cost percentage. This shall be done as part of the development of the DSR. Current WisDOT practice is to develop an estimate with a separate category for true structural costs (limited to costs directly attributable to the rehabilitation or replacement of the structure proper). Most other costs are placed in a roadway items category. FHWA defines structure and approach costs differently. Some items that WisDOT includes in its roadway items category are necessary for the bridge construction including mobilization, traffic control, and field office items.

The design consultant may consider 25% of the mobilization, traffic control and field office costs as approach costs and 75% as bridge costs. If the total roadway category item costs, less 75% of mobilization, traffic control and field office item costs, are more than 15% of the total project costs (without delivery), then FHWA approval is needed. A written justification of the approach work must be developed and submitted with calculations. The justification must clearly explain why the proposed approach lengths and costs are necessary. Justification explains the need for medium or long approaches, which are typically due to major safety geometric improvements related to the structure or extended approaches needed to raise the elevation of the structure. Keep in mind that extended approach work is still limited to approach costs that are necessary to render the bridge serviceable (to reach the attainable touchdown points using current standards).

Justifications should be submitted to MC and LPPM then forwarded to the appropriate FHWA Field Operations Engineer for approval, if required. Justifications are to be prepared, and submitted prior to DSR, yet at a point where detailed information is available.

**Approach Information Shown in FIIPS / FMIS**

Bridge costs in FMIS should be coded to show the first two classifications of project costs (pure structural replacement/rehabilitation costs and other associated structural replacement/rehabilitation costs) as having an improvement code of 11 or 14 (bridge replacement or bridge rehabilitation). Approach work, as defined above, should be coded as 03, 04 or 07. (For more guidance and additional information concerning bridge/approach

work set-up in FIIPS please review FIIPS Program Management Manual (PMM) section 5-5-5, PMM Section 5-10-5 for FIIPS project description and [FDM 3-5-2](#) for Federal Improvement Concept.)

A note that provides the actual approach cost, approach percentage, and justification approval date/approver name (if applicable) should be included in FIIPS. Ideally this information should be transferred into the "State Remarks" field in FMIS, but at a minimum this information should be accessible should it need to be reviewed as part of FHWA's quarterly authorization review process.

#### **Contract Change Orders/Project Modifications**

If there are changes to the project during construction, those changes must be appropriately assigned to the applicable code. Approach costs should be verified to be within the 15% (or other approved) limit when there are contract modifications.

#### **For Projects with Separate LFA Work for Approaches**

There should only be one federal-aid project in FMIS. A 100% approach roadway project is not eligible for HBP funding. Approach roadway work must be included in a project with an eligible bridge and only include work necessary to reach the obtainable touchdown points using current standards.

All work (both the structural work and the approach work), even if one will be 100% locally funded, must be covered under one environmental document.

Neither phase of work (LFA approach work or let bridge work) can be started prior to completion of the environmental document and project authorization.