**FASTER Bridge Enterprise Projects**

**Background:**

Legislation titled **Funding Advancements for Surface Transportation and Economic Recovery** (FASTER) passed recently to increase the state’s ability to improve structures and roadway safety in Colorado. This design bulletin applies only to the FASTER Bridge Enterprise funding portion of this legislation.

A key component of the bill was the creation of the Bridge Enterprise (BE). The term Enterprise means “a nonprofit entity that dedicates derived funding specifically to the functions of the enterprise”. A key point is these Bridge Enterprise funds are not directed to CDOT, but to the Bridge Enterprise. This funding goes specifically to the replacement, rehabilitation, repair, and maintenance of eligible structures in the State of Colorado.

According to the legislation structures that are structurally deficient or functionally obsolete and have been designated as poor by the Department are eligible for transfer to the BE. Every year the list of bridges meeting this eligibility requirement will change. The Department has elected to use the April 2009 list of poor bridges to develop a seven year plan for the BE. Only structures on this list will be eligible for BE funds for now.

To prevent these funds from being included in the calculation of the State’s funding limits established by the TABOR legislation, structures must be transferred as assets from CDOT to the BE, and the funds used for these bridges must be tracked separately. Generally State funds are not to be used for these bridges in order to protect the enterprise status of the BE. The statutes allow federal funds and a small amount of state funds to be used for the BE, and occasionally OFMB may elect to use this small allowance of State funds. For project planning purposes it should be assumed that non BE state funds cannot be used for bridges transferred to the BE.

**Bridge Enterprise Projects:**

A Bridge Enterprise project must meet specific criteria and any increase to the cost of the project or additional type of funding must be approved by the Bridge Enterprise Board before moving forward. Funding for a Bridge Enterprise project can be either FASTER Bridge funds only or may have a combination of Federal Bridge and FASTER bridge funds included. The Bridge enterprise Board will indicate what type and the amount of funding is approved for the project. This bulletin will address only projects that have bridge funding (either FASTER or federal) in the project.

**Scope for a Bridge Enterprise Funded Project:**

Projects that will use the FASTER bridge funds need to have the scope of the project for any non-bridge work limited to that necessary to replace or rehabilitate the bridge and bring the bridge up to current roadway and structural standards. This may include portions of roadway approaches that require work to facilitate the bridge rehabilitation or replacement.

Restrict the scope of the Bridge Enterprise Project to that of replacing the bridge and the approaches as needed to replace or rehabilitate the bridge. Avoid increasing the project scope during the project development process. Such a change in scope may cause the need for additional funds, a different type of funding, or both for the project.

**Adding Another Type of Funding:**

The method to develop, advertise and construct a project with funds other than FASTER and federal bridge funds for a Bridge enterprise project is still being developed and tested. Another bulletin will address this scenario when the method to do this has been determined.

When scoping a Bridge Enterprise Project, keep in mind that adding another type of funding such as surface treatment, safety, RPP, etc… will affect the project in the following ways:

* Separation of all the Bridge replacement items from all other type of funding is needed for tracking when the project is being designed, constructed, and closed out.
* Approval of these additional funds by the Bridge Enterprise Board and Transportation Commission is required. So it will take some additional time to get this funding added.

**Critical Differences Between CDOT Projects and Bridge Enterprise Projects:**

Since the establishment of the Bridge Enterprise is new, the process is new to CDOT and its financial programs. This bulletin provides the best guidance known at this time. Funds used for the Bridge Enterprise are not the same as CDOT projects and have unique conditions and categories. Here are some of the main differences that need to be kept in mind.

1. SAP Differences When Setting Up the Project

* Plant: 7001 for Bridge Enterprise projects (instead of your region Plant number)
* Org Group: B8800-538 is the Responsible Cost Center for BE projects
* Fund Number: 538 Bridge Enterprise (instead of 400 for CDOT projects)
* Project Prefix: FBR–Bridge Enterprise projects

1. P.R. Release Strategy: Bridge Enterprise releases go to all Program Engineers and Region Business Office managers statewide rather than the region specific group. The intent is still for the responsible group to approve these.

* Profit Center: 5000-538
* Investement Profile: Z00992

1. Assets for Bridge Enterprise projects:

A difference with the Bridge Enterprise is that once the existing bridge is transferred to the Bridge Enterprise, the existing bridge and any new bridge resulting from replacement, become assets of the Bridge Enterprise not CDOT. Existing bridges are transferred to the Bridge Enterprise before any Bridge Enterprise funds are used for design or construction.

1. CE POOL exempt:

Because the construction cost for these projects must be kept separate from normal CDOT funds, the CDOT CE Pool cannot be used to fund the Construction of the projects. Indirects of 95.5% will be charged to any construction consultant task order used. See specific guidance later in this bulletin.

**Technical Bridge Enterprise Requirements:**

1. Creation in SAP

There are significant differences in the Create Project Structure from a Standard Template in CJ20N portion of the project creation process.

* The first key step is to modify the Profit Center Field at the Project definition Level from the normal value of 5000-010 to 5000-538. That change will propagate the correct profit center throughout the template after the new template is added.

****

* The second key step occurs when entering the Responsible Cost Center. Rather than use your unit's RE Org code (R5112-010 for example), enter the cost center for the Bridge Enterprise group which is B8800-538. This is crucial for the release strategy of the Purchase Requisition (PR) and Purchase Order (PO) to work correctly.

See the attached screen shots for information on where those fields need to get entered and revised.

****

1. Construction Engineering is (CE) Pool exempt.

All Bridge Enterprise Projects are CE Pool Exempt. Personnel need to charge their time directly to the construction phase of the specific project rather than to the Region Construction Engineering pool. Because of the Bridge Enterprise, the charges for construction need to be tracked separately from CDOT projects.

The project manager will need to set aside sufficient construction budget to cover all the costs associated with the Construction Engineering (CE) on the project. The charges that need to be accounted for in the estimate include the following:

* CDOT personnel charging to the project including benefits
* Construction Engineering task orders for Consultant Services
* Indirect charges at the current rate agreed to with the FHWA (applied to both internal charges and consultant charges)

A brief discussion of how the CE and indirect charges work at CDOT is attached below



All these Construction Engineering costs for the project need to be estimated accurately so sufficient budget is set aside to cover those costs. The indirect rate will be applied to both the Employee payments including benefits as well as any Consultant Construction Engineering Task orders.

When developing your construction engineering estimate, meetings to be included in the construction engineering charges are: partnering, preconstruction, pre-paving, pre-pour, pre-survey***,*** bridge demolition, pre-erection,dispute resolution meetings, weekly scheduling meetings, and any other meetings the project is expected to require. When estimating the actual hours required for the CE estimate, the following personnel and support units should be considered to ensure all potential charges are estimated:

* Resident Engineer (site visits and meetings)
* Project Engineer-Manager
* Inspectors (overtime for non-exempt employees should be considered)
* Testers (overtime for non-exempt employees should be considered)
* Region Materials lab (site visits, IATs, deck pour assistance, submittals, etc...)
* Region Utilities unit
* Staff Bridge
  + fabrication inspections
  + construction assistance
  + required Project Acceptance final Bridge review
* Bridge Designer – Staff Bridge or consultant as applicable
  + Review of shop drawings
  + Construction assistance
* Staff Geotechnical Personnel
* Environmental Group Support (NPDES, T & E inspections)
* Public Relations Support
* Finals Engineers
  + Processing CMOs in Site Manager
  + Finals package review and check
* Staff Branches (Area Engineers and Asst. Area Engineers)
  + CMO review/assistance
  + Dispute resolution assistance
* Consultant Construction Staff.

Consultant usage costs charged to Bridge Enterprise projects will be calculated differently than typical CDOT projects. The indirect rate of 95.5% of the consultant task order cost will be added to the cost of the project, almost doubling the cost of using a consultant in construction. See the special coding needed when doing the Purchase Requisition for the consultant for construction services (see note below)

Based on whether the construction phase of the project has federal participation or is state funded, choose the correct Excel worksheet below to develop the estimated Construction Engineering costs of the project.

****

**Purchase Requisitions (PR) For Construction And Construction Consultant Task Order**

The purchase requisition required for Bridge Enterprise projects will need to be created differently than you would for a typical CDOT capital engineering project.

1. For the advertisement for the construction of the project - Purchase Requisition (PR)-, the only difference is that the plant for Bridge Enterprise projects needs to be coded as plant 7001 rather than the plant of your region.
2. For Purchase Requisitions (PR) for Construction engineering services, there will now be a pre-requisite step prior to starting the PR in SAP. An email will need to be sent to the Outlook distribution group “\*HQ-OFMB-Project Accounting Bid and Award Unit” to have them set up the G/L number on the SAP Project validation table. Once that step has been completed, the PR for CE services can be created correctly so that the billings operate as required. The G/L Account number for the Bridge Enterprise projects will be based on whether there are Federal funds on the project or if it is bridge enterprise state funded only.

* G/L number for Bridge Enterprise funded projects is 4192000010
* G/L number for Bridge Enterprise projects with Federal participation is 4192000011

See the attached screen shot for an example of both a state funded PR and Federal participating PR.



1. The SAP release strategy for a Bridge Enterprise PR is slightly different. The PRs are available to be approved and released by any Program Engineer statewide for the first release and any Business Manager statewide for the second release. The responsible regions should normally release their own PRs. See the attached example of the release window for a Bridge Enterprise project.



**Drawdown Schedules:**

When completing the drawdown schedule for the construction cost to the project, here are the differences. The Fund will be 538 rather than 400 when completing the screen on CJR2. See attached screen shot.



If you have consultant services for construction in your project, you will need to add the cost of the consultant to the construction pay items in the drawdown schedules. For example, the contractor drawdown may be June $100,000, $July 300,000, August $400,000 while the consultant engineering costs drawdown may be June $25,000, July $25,000 and August $25,000. Your total drawdown schedule for the construction phase XXXXX.20.10 for this project would be $125,000, $325,000, $425,000.

**Check of TRNS\*PORT PES, the Form 65 and SAP:**

Above you have calculated a value for your anticipated costs for your CE and indirects. To incorporate that CE value into your overall cost estimate in PES (trns\*port) and on the form 65, is not as simple as just entering that value into the form 65 or the PES (trns\*port) estimate. Both PES and the SAP form 65 are not set up for CE costs to be entered in a lump sum manner. The estimated value is only added into your PES (trns\*port) estimate and the form 65 via a percentage calculation very similar to how the CE costs for the CE pool are included in the cost of your estimate. Basically as a percentage of the estimated cost of your project.

Once the Engineers Estimate has been reviewed by the Cost estimates unit and your estimated costs are firm for the CE and indirects, you can generate a correct version of the form 65 that matches up with the PES (trns\*port) Estimate for your total construction estimate. This will be required prior to submitting your project’s 1180 to the FHWA.Use the amounts shown in the spread sheets above to put in the CE Pool percentage in PES (Trns\*port) and calculate the Indirects in the 1100 category above.

Immediately Before Requesting 1180:

There are two places where the CE Pool Percentage is needed to calculate the estimate amount: 1) Trns\*port 2) SAP - CJ20N custom tabs under Accounting- which only OFMB or the SAP Project Systems BPX has access. The percentage of CE POOL in SAP will reset every night (until after the project is awarded) so this step is important to do the same day that you start the form 1180. The exact amount of CE POOL and indirects calculated from the percentage entered into SAP and Trns\*port may have a small rounding difference. Let your business manager know that they may not exactly match.

After Project Is Awarded:

Once the project is awarded to the low bidder, the percentage of CE POOL will need to change in SAP based upon the percentage in conjunction with the Contractor’s commitment amount instead of the engineer’s estimate. The percentage for CE POOL will now need to be recalculated again and the new percentage based will need to be entered in SAP accounting tab (the percentage does not need to be changed in Trns\*port after award). The indirects will be automatically calculated in the system (currently set at 95.5).

The following screens shot show how to check that the project is set up correctly in TRNS\*port, PES, and SAP so that the CE costs will calculate correctly. Choose one of the following documents depending if you have federal funds in the project or not. If you are not sure if you have federal funds, check ZJ40 and look under the column of Fund Type.  If there is an “F” then you project has federal funds.



This is a complicated process. You can contact Tony Bemelen or train a person in the region that becomes the expert in this process to help others in the region.

Any questions contact:

Tony Bemelen, Project systems BPX