



# **ODOT Railroad Audit Circular No. 4**

## **Subcontracted Costs for Railroads**

Release Date: January 1, 2010

### **Application:**

Unless and until revised by ODOT, this Circular is effective for actual costs incurred by railroads on projects authorized by ODOT or ORDC on or after January 1, 2010.

# RAILROAD AUDIT CIRCULAR No. 4



## OHIO DEPARTMENT OF TRANSPORTATION

CENTRAL OFFICE, 1980 W. Broad St., 4<sup>th</sup> Floor, COLUMBUS, OHIO 43223

SUBJECT: Subcontracted Costs

Effective Date: January 1, 2010

Last Updated: October 13, 2009

### I. DEFINITIONS

As used in this Circular—

1. "Subcontractor" or "Subconsultant" refers to any company whose services are retained by the railroad for the purposes of providing preliminary engineering, engineering (subconsultant), or construction (subcontractor) services. This also includes a subcontractor retained by another subcontractor.
2. A "loaded" labor rate is an hourly direct labor billing rate in which the firm's overhead and profit are inherently embedded in each employee's hourly billing rate. For further guidance, refer to example 4-2.
3. The "State of Ohio Department of Transportation Construction and Material Specification Manual" sets forth all rules and regulations pertaining to construction work contracted with ODOT. Specifically, section 109.05(C)(2), *Extra Work*, addresses reimbursement for construction work.<sup>1</sup>

### II. ISSUE

During an incurred-cost audit, the auditor may encounter costs associated with subcontractors. The following sets forth the guidelines regarding the acquisition, contracting, and eligibility requirements for reimbursement of subcontracted costs.

### III. ALLOWABILITY

All costs associated with railroad engineering or construction services must comply with 23 CFR 646, 23 CFR 140I, FAR Part 31, and ODOT's 11 Contract Audit Circulars.

**A. Preliminary Engineering and Engineering Services.** 23 CFR 646.216(b) requires that engineering services must be acquired through one of the following methods, as mutually agreed to by ODOT or the ORDC and the railroad.

1. Use of State or Railroad engineering forces;
2. Use of an engineering consultant selected by the state after consultation with the railroad, such that the contract is administered by the State; or
3. Use of an engineering consultant selected by the railroad, with approval of the State, such that the contract is administered by the railroad.

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<sup>1</sup> The most current version of the ODOT CMS Manual can be found at <http://www.dot.state.oh.us>.

Federal-aid funds may participate in such amounts paid to engineering consultants, provided that these amounts are not based on the percentage-of-completion method.

Firms who are pre-qualified with ODOT to perform A/E consulting services must use overhead and billing rates that have been submitted and accepted by ODOT. Firms who are not pre-qualified with ODOT are still required to charge rates that are compliant with FAR Part 31.

**B. Construction Services.** Railroad construction work may be accomplished using any of the following methods.

1. Use of Railroad construction forces (Force Account);
2. Contracting with the lowest qualified bidder based on appropriate solicitation;
3. Existing continuing contract, at reasonable cost; or
4. Contract work for minor dollar amounts, at reasonable cost.

Use of the lowest qualified bidder process or continuing contract does not preclude the railroad or the subcontractor from compliance with the policies set forth in FAR Part 31, 23 CFR 140, 23 CFR 646, ODOT Railroad Audit Circulars, or other applicable regulations.

**C. General Provisions for Engineering and Construction Services.**

1. **Burden of Proof.** Per FAR 31.201-3(a), the railroad is required to substantiate that the overhead or "loaded" labor rates charged by subcontractors and subconsultants are in compliance with all applicable Federal regulations, including FAR Part 31 and all ODOT Contract Audit Circulars. If the railroad is unable to meet the required burden of proof, ODOT may elect to enforce the labor additive rates established in the latest edition of the ODOT Construction and Material Specifications Manual, section 109.05(C)(2), *Extra Work*. Enforcement of this policy is solely at the discretion of ODOT.
2. **Calculations.** The following outlines ODOT policy with respect to the application of loaded labor rates and overhead, as applied to subcontracted costs.
  - a. **Loaded Labor Rates.** Firms choosing to invoice "loaded" labor rates may do so provided that these rates are in-line with actual incurred costs plus overhead and a reasonable profit. See example 4-2 for further guidance.
  - b. **Overhead.** Charges for various types of overhead must be applied on the appropriate cost driver (base). The State may reimburse subcontractors for overhead and indirect construction costs not otherwise eligible for reimbursement to the railroad, subject to the limitations set forth in FAR Part 31 and ODOT Contract Audit Circulars. For a specific example, refer to example 4-4. Also, refer to ODOT Railroad Audit Circular Nos. 1 and 7 for additional guidance on the proper application of overhead to direct labor and materials.

**D. General Audit Considerations: Low Bids and Continuing Contracts.**

1. **Low Bids.** Per 23 CFR 646.216(f)(ii), construction may be accomplished by contracting with the lowest qualified bidder based on appropriate solicitation. The following guidelines set forth minimum requirements for bid selection and allowability of costs.

- a. Low bid construction must be bid as a lump sum.
  - b. A minimum of three qualified, responsive bidders is required.
  - c. The bid package may not contain costs ineligible for reimbursement.
  - d. Pre-approval of bid documents put out for solicitation is recommended when a substantial portion of the costs will be reimbursed by ODOT/ORDC.
  - e. The bidding subcontractor should perform no less than one-half of the labor related to the scope of the bid.
2. **Continuing Contracts.** Per 23 CFR 646.216(f)(iii), construction may be completed by existing continuing contract at reasonable costs. The following guidelines set forth minimum requirements, audit standards, and establish reasonableness for specific cost items.
- a. Continuing contracts must be billed using a cost-plus fixed-fee or unit rate approach. Use of lump sum pricing under continuing contracts is prohibited.
  - b. Audits will be performed to the explicit terms of the contract.
  - c. Costs included in the terms of the contract not eligible for reimbursement in accordance with all applicable regulations, including 48 CFR 31, 23 CFR 140, 23 CFR 646, and ODOT Railroad Audit Circulars, will not be reimbursed.
  - d. Copies of continuing contracts may be requested and kept on file with ODOT/ORDC for the purposes of establishing reasonableness and determining compliance with the contract.
  - e. The primary construction subcontractor should perform no less than one-half of the work within the scope of the continuing contract.
3. **Fixed Fees.** Under continuing contracts utilizing the cost-plus fixed-fee methodology, the fixed fee must be explicitly stated as a fixed dollar amount in the estimate, as approved by ODOT/ORDC. This fixed fee is reimbursable regardless of the actual cost of the project, but may not exceed the originally stated and approved amount. Special consideration may be made for additional fees, provided a material change in the scope of work exists, resulting in additional labor costs. As a measure of reasonableness, in accordance with 23 CFR 646.216(f)(iii), ODOT/ORDC limits profit to 10% of direct labor cost and overhead. Any markups above actual cost in excess of this threshold are ineligible for reimbursement. Under continuing contracts utilizing the unit rate methodology, the component of the rate relating to profit must be reasonably comparable to the cost-plus fixed-fee approach. Refer to example 4-2 for further analysis.

Also note that the State will not reimburse the railroad for changes in plans for the convenience of the contractor, or any costs not approved by the State and the FHWA.

#### IV. EXAMPLES

**Example 4-1.** ABC Railroad retains engineering services through a continuing contract with Smith Consulting. ODOT/ORDC has approved the use of this contractor. The firm is prequalified with ODOT and has a submitted and accepted provisional overhead rate of 150%. Smith's continuing contract with ABC provides for an overhead rate of 155%.

Analysis – The State will reimburse ABC at the ODOT approved rate of 150%. When ABC reimburses Smith Consulting at the contracted rate of 155%, ABC will incur the additional 5% at its own expense.

**Example 4-2.** ABC Railroad retains engineering services through a continuing contract with Smith Consulting. The contract between ABC and Smith stipulates that all employees with the title of Project Manager working on ABC projects will be billed at a “loaded” hourly rate of \$110 per hour. Smith’s ODOT accepted provisional overhead rate is 150%.

Analysis – Review of Smith’s records indicates that the weighted average hourly wage of all employees with this job title is \$40 per hour. In applying an overhead rate of 150% and 10% profit equates to an hourly rate of \$110 per hour, as determined the following way:  $[40 + (40 * 150\%)] + 10\% * [40 + (40 * 150\%)]$ . This treatment is reasonable in that the “loaded” hourly rate accurately reflects actual wages, the ODOT accepted overhead rate, and a reasonable profit.

**Example 4-3.** ABC railroad has engaged in a continuing contract with Jones Construction. As part of this contract, the following provisions apply.

- Jones will provide two unrelated services for ABC; track and signal maintenance, and crossing device installation. Maintenance costs are primarily borne by ABC and all crossing device installation is primarily borne by ODOT or the ORDC.
- Jones charges ABC its overhead costs based on a material cost driver.
- Jones earns a 10% profit on total project costs, including purchased materials and Jones’ subcontractors.

Analysis – As with any continuing contract, all costs charged to the State are subject to reasonableness. In this instance, the agreed-upon application of overhead to materials is an inappropriate cost driver. Considering that signal maintenance incurs minimal material costs, and crossing installation projects incur significant amounts of material costs, there is an inequitable burden upon the State to reimburse Jones’ overhead costs. Additionally, materials do not derive benefit from overhead costs incurred by Jones. Accordingly, ODOT would apply direct labor cost as the appropriate driver and recalculate a more equitable overhead charge. Furthermore, ODOT would not reimburse the Railroad for the profit charged on costs other than Jones’ direct labor cost and overhead. ODOT contracts with engineering consultants typically provide for a fixed fee based upon a percentage of the consultant’s estimated direct labor and overhead costs, as approved by the contracting officer. Application of profit based upon “pass-through” costs is inappropriate.

**Example 4-4.** ABC Railroad is required to provide protective services relating to an ODOT grade separation project. The following conditions apply.

- ABC is using force account labor to provide flagging services. ABC’s fringe benefits overhead rate is 60%. ABC’s general and administrative (G&A) overhead rate is 80%.
- ABC has acquired minor construction services from Anacott Construction via continuing contract. Anacott’s fringe benefit overhead rate is 45%. Anacott’s G&A overhead rate is 90%.
- ABC has acquired engineering services from Blue Star Consulting via continuing contract. Blue Star’s fringe benefit rate is 44%. Blue Star’s G&A overhead rate is 110%.

Analysis – As the railroad, ABC is entitled to reimbursement for its fringe benefits costs. It may not charge G&A overhead, as ODOT has elected not to reimburse for these indirect costs. As subcontractors, Anacott and Blue Star are entitled to reimbursement for all fringe benefits and G&A overhead, provided that these rates are in compliance with FAR Part 31 and all other applicable regulations. Refer to ODOT Railroad Audit Circular No. 1; section IV, *Allowability*, for further guidance.

**Example 4-5.** The attached sample estimate provides guidance as to the proper application of material handling fees, overhead, and reasonable profit.

**Example 4-6.** The attached sample invoice provides guidance as to the proper application of material handling fees, overhead, and profit, as it relates to the estimate contained in Example 4-5.

**Example 4-7.** The attached application of additive rates shows each methodology outlined in the ODOT Construction and Material Specification Manual, section 109.05(C)(2). In each example, the railroad/subcontractor must use its internal additive rate for fringe benefits. Also note that railroads are ineligible for reimbursement of the 38% overhead rate shown in the examples.

**Example 4-8.** The attached sample overhead schedule provides guidance on the preparation of a properly-formatted and FAR Part 31 compliant overhead schedule for subcontractors and subconsultants. For an example of a properly formatted schedule for railroads, refer to ODOT Railroad Audit Circular No. 1.

## V. REFERENCES

- FAR 31.201-3 (Determining Reasonableness)
- State of Ohio Department of Transportation Construction and Material Specification Manual, published January 1, 2008
- 23 CFR 140.907(b)(3) (Overhead and Indirect Construction Costs)
- 23 CFR 646.216(b) and (d) (General Procedures)
- ODOT Railroad Audit Circular No. 1 (Definitions, Audit Authority, and General Guidance Regarding the Computation of Overhead Rates)

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 Example 4-5  
 Sample Subcontractor Approved Estimate

## Sample Approved Estimate

Cassidy Railroad of Ohio  
 1980 West Broad Street  
 Columbus, Ohio 43223

AAR No.: 123 456 A  
 County: Franklin  
 Route: I-270

Project No.: 987XYZ  
 Estimate: Original  
 Date: 1/1/2009

| Type                                | Rate |   | Amount Charged |
|-------------------------------------|------|---|----------------|
| Construction Labor                  |      |   | 40,000.00      |
| Engineering Labor                   |      | Total Direct Labor Cost:<br>\$51,150  | 11,000.00      |
| Administrative Labor                |      |   | 150.00         |
| Purchased Materials                 |      |   | 75,000.00      |
| Stock Materials                     |      |   | 17,000.00      |
| Company-Owned Equipment             |      |   | 500.00         |
| Equipment Rentals                   |      |   | 4,000.00       |
| Travel/Per Diem                     |      |   | 850.00         |
| Subcontracted Costs                 |      | Standard 5% material handling<br>fee applied to stock materials<br>only.  | 17,200.00      |
| Freight                             |      |   | 1,500.00       |
| Material Handling Fee               | 5%   |   | 850.00         |
| General and Administrative Overhead | 70%  | Application of G&A<br>Overhead, Fringe benefits,<br>and Liability Insurance to<br>direct labor cost: \$69,564.              | 35,805.00      |
| Fringe Benefits                     | 45%  |   | 23,017.50      |
| Liability Insurance                 | 21%  |   | 10,741.50      |
| Total Project Costs                 |      |   | 237,614.00     |
| Fixed Fee                           | 10%  | Fixed fee applied to direct labor<br>cost and overhead: 10% ×<br>\$120,714. This fixed amount<br>recoverable by contractor. | 12,071.40      |
| Total Due                           |      |   | \$ 249,685.40  |

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Example 4-6

Sample Subcontractor Invoice

# Sample Final Invoice

Cassidy Railroad of Ohio  
1980 West Broad Street  
Columbus, Ohio 43223

AAR No.: 123 456 A  
County: Franklin  
Route: I-270

Project No.: 987XYZ  
Invoice No.: 100001  
Invoice Date: 6/1/2009

| Type                                | Rate | Amount Charged       |
|-------------------------------------|------|----------------------|
| Construction Labor                  |      | 35,497.65            |
| Engineering Labor                   |      | 8,192.38             |
| Administrative Labor                |      | 127.50               |
| Purchased Materials                 |      | 65,150.00            |
| Stock Materials                     |      | 18,195.00            |
| Company-Owned Equipment             |      | 250.00               |
| Equipment Rentals                   |      | 3,165.78             |
| Travel/Per Diem                     |      | 1,250.00             |
| Subcontracted Costs                 |      | 22,500.00            |
| Freight                             |      | 3,127.45             |
| Material Handling Fee               | 5%   | 909.75               |
| General and Administrative Overhead | 70%  | 30,672.27            |
| Fringe Benefits                     | 45%  | 19,717.89            |
| Liability Insurance                 | 21%  | 9,201.68             |
| <b>Total Project Costs</b>          |      | <b>217,957.35</b>    |
| Fixed Fee                           |      | 12,071.40            |
| <b>Total Due</b>                    |      | <b>\$ 230,028.75</b> |

Total Direct Labor Cost:  
\$43,817.53

Standard 5% material handling  
fee applied to stock materials  
only.

Application of G&A  
Overhead, Fringe benefits,  
and Liability Insurance to  
direct labor: \$59,591.84.

Fixed fee approved by  
ODOT/ORDC on estimate.

Total Project Costs

## Sample Application of C&MS 109.05(C)(2)

### Example 1: Using Actual FICA, Workers' Compensation, FUTA, and SUTA

| Name                           | Hours | Rate  | Amount   | Note              |
|--------------------------------|-------|-------|----------|-------------------|
| John Smith                     | 40    | 25.50 | 1,020.00 | A                 |
| April Flowers                  | 35    | 27.00 | 945.00   | B                 |
| Tom Johnson                    | 30    | 23.40 | 702.00   | C                 |
| Jessica Anderson               | 40    | 18.25 | 730.00   | D                 |
| Total Direct Labor Cost        |       |       | 3,397.00 | E = A + B + C + D |
| Fringes*                       |       | 30%   | 1,019.10 | F = 30% x E       |
| Subtotal: Labor and Fringes    |       |       | 4,416.10 | G = E + F         |
| FICA                           |       | 7.65% | 337.83   | H = 7.65% x G     |
| Workers' Compensation          |       | 10%   | 441.61   | I = 10% x G       |
| FUTA                           |       | 0.80% | 35.33    | J = 0.80% x G     |
| SUTA                           |       | 9%    | 397.45   | K = 9% x G        |
| Subtotal: Payroll Taxes        |       |       | 1,212.22 | L = H + I + J + K |
| Overhead (Railroad Ineligible) |       | 38%   | 1,678.12 | M = 38% x G       |
| Total Labor and Overhead       |       |       | 7,306.44 | N = G + L + M     |

### Example 2: Using 22% for FICA, Workers' Compensation, FUTA, and SUTA

| Name                           | Hours | Rate   | Amount   | Note              |
|--------------------------------|-------|--------|----------|-------------------|
| John Smith                     | 40    | 25.50  | 1,020.00 | P                 |
| April Flowers                  | 35    | 27.00  | 945.00   | Q                 |
| Tom Johnson                    | 30    | 23.40  | 702.00   | R                 |
| Jessica Anderson               | 40    | 18.25  | 730.00   | S                 |
| Total Direct Labor Cost        |       |        | 3,397.00 | T = P + Q + R + S |
| Fringes*                       |       | 30%    | 1,019.10 | U = 30% x T       |
| Subtotal: Labor and Fringes    |       |        | 4,416.10 | V = T + U         |
| FICA                           |       | 22.00% | 971.54   | W = 22% x V       |
| Workers' Compensation          |       |        |          |                   |
| FUTA                           |       |        |          |                   |
| SUTA                           |       |        |          |                   |
| Overhead (Railroad Ineligible) |       | 38%    | 1,678.12 | X = 38% x V       |
| Total Labor and Overhead       |       |        | 7,065.76 | Y = V + W + X     |

\*Note: Actual incurred Fringe Benefits costs including union mandated benefits such as leave pay, health and welfare, and retirement.

**ODOT Railroad Audit Circular Attachment 4-8: Sample Overhead Schedule**

**Sample Subcontractor/Subconsultant Company, Inc.  
Statement of Direct Labor, Fringe Benefits, Liability Insurance, and General and Administrative Overhead  
For the Year Ended December 31, 2008**

| Account No.   | Account Description                              | Total Costs Per General Ledger/Income Statement | Unallowable Costs  | Note(s)   | Allowable Costs  | Percentage of Direct Labor |
|---|--|---|--------------------|-----------|------------------|----------------------------|
| 1000  | Direct Labor                                     | 7,150,000                                       | -                  |           | 7,150,000        | 100.00%                    |
| <b>Fringe Benefits and Other Allowable Overhead</b>   |  |   |                    |           |                  |                            |
| 2001  | Vacation and Other Paid Leave                    | 235,000   | -                  |           | 235,000          | 3.29%                      |
| 2002  | Holiday Pay                                      | 146,000   | -                  |           | 146,000          | 2.04%                      |
| 2003  | Supplemental Sickness                            | 43,000  | -                  |           | 43,000           | 0.60%                      |
| 3001  | Health and Welfare Insurance                     | 685,000   | -                  |           | 685,000          | 9.58%                      |
| 3002  | Retirement and Unemployment Insurance            | 525,000   | -                  |           | 525,000          | 7.34%                      |
| 3500  | FICA   | 397,500   | -                  |           | 397,500          | 5.56%                      |
| 3600  | Workers' Compensation                            | 565,000   | -                  |           | 565,000          | 7.90%                      |
| 3700  | FUTA   | 51,000  | -                  |           | 51,000           | 0.71%                      |
| 3800  | SUTA   | 371,000   | -                  |           | 371,000          | 5.19%                      |
| 4001  | Small Tools                                      | 511,150   | -                  |           | 511,150          | 7.15%                      |
| 4002  | Training and Safety                              | 62,350  | -                  |           | 62,350           | 0.87%                      |
|   | <b>Total Fringe Benefits</b>                     | <b>3,592,000</b>                                | <b>-</b>           |           | <b>3,592,000</b> | <b>50.24%</b>              |
| <b>Liability Insurance</b>  |  |   |                    |           |                  |                            |
| 5001  | Liability Insurance Expense                      | 875,750   | -                  |           | 875,750          | 12.25%                     |
| <b>General and Administrative Overhead (Note: Only subcontractors are eligible for reimbursement)</b> |  |   |                    |           |                  |                            |
| 6001  | Indirect Labor Expense                           | 2,365,000                                       | (118,000)          | 1         | 2,247,000        | 31.43%                     |
| 6002  | Rent Expense                                     | 412,590   | -                  |           | 412,590          | 5.77%                      |
| 6003  | Maintenance and Repairs Expense                  | 108,400   | -                  |           | 108,400          | 1.52%                      |
| 6004  | Travel Expense                                   | 97,465  | -                  |           | 97,465           | 1.36%                      |
| 6005  | Telephone Expense                                | 119,785   | (3,000)            | 2         | 116,785          | 1.63%                      |
| 6006  | Other Utility Expense                            | 178,000   | -                  |           | 178,000          | 2.49%                      |
| 6007  | Printing Expense                                 | 165,000   | -                  |           | 165,000          | 2.31%                      |
| 6008  | Tax Expense                                      | 179,645   | (150,000)          | 3         | 29,645           | 0.41%                      |
| 6009  | Depreciation and Amortization Expense            | 216,000   | (15,000)           | 4         | 201,000          | 2.81%                      |
| 6010  | Advertising Expense                              | 88,650  | (67,500)           | 5         | 21,150           | 0.30%                      |
| 7001  | Employee Training and Recruiting                 | 117,500   | -                  |           | 117,500          | 1.64%                      |
| 7002  | Professional Development Expense                 | 38,900  | -                  |           | 38,900           | 0.54%                      |
| 7003  | Interest Expense                                 | 900,000   | (900,000)          | 6         | -                | 0.00%                      |
| 7004  | Bad Debt Expense                                 | 47,500  | (47,500)           | 7         | -                | 0.00%                      |
| 7005  | Legal Fees                                       | 112,300   | (78,000)           | 8         | 34,300           | 0.48%                      |
| 7006  | CADD Expense                                     | 675,250   | (50,000)           | 9         | 625,250          | 8.74%                      |
| 7007  | Automobile Expense                               | 170,600   | (11,850)           | 4         | 158,750          | 2.22%                      |
| 7008  | Fuel Expense                                     | 89,250  | (6,200)            | 4         | 83,050           | 1.16%                      |
| 7009  | Office Supplies Expense                          | 600,000   | (18,000)           | 10        | 582,000          | 8.14%                      |
| 7010  | Miscellaneous Expense                            | 375,450   | (75,000)           | 11        | 300,450          | 4.20%                      |
|   | <b>Total General and Administrative Overhead</b> | <b>7,057,285</b>                                | <b>(1,540,050)</b> | <b>12</b> | <b>5,517,235</b> | <b>77.16%</b>              |

Overhead Rates (as a percentage of direct labor cost)

|   |        |
|---|--------|
| Fringe Benefits   | 50.24% |
| Liability Insurance                                       | 12.25% |
| General and Administrative Overhead (Railroad Ineligible) | 77.16% |

Notes:

- (1) Executive salaries in excess of the \$612,196 benchmark compensation amount are disallowed per FAR 31.205-6(p).
- (2) Direct telephone expenses are disallowed from the indirect cost pool per FAR 31.202.
- (3) Federal income tax expense is disallowed per FAR 31.205-41(b)(1).
- (4) Costs associated with personal use of vehicles is disallowed per FAR 31.205-6(m)(2).
- (5) Advertising costs associated with the image enhancement of the corporation is disallowed per FAR 31.205-1(f).
- (6) Interest costs are disallowed per FAR 31.205-20.
- (7) All costs associated with bad debt expense are disallowed per FAR 31.205-3.
- (8) Costs associated with settlements are disallowed per FAR 31.205-47.
- (9) Direct CADD expenses are disallowed per FAR 31.202.
- (10) Direct office supplies expenses are disallowed per FAR 31.202.
- (11) Miscellaneous expenses associated with employee entertainment are disallowed per FAR 31.205-14.
- (12) Per 23 CFR 140.907(a), ODOT has elected not to reimburse the railroad for G&A overhead. However, if the railroad contracts with a subcontractor to perform necessary railroad work, subcontractor G&A overhead is permitted if included in the provisions of the railroad-subcontractor agreement. All applicable regulations still apply.