

**A Policy on Construction of State and Federal-Aid Highway Projects  
By Forces and Equipment of Counties or Other Local Governmental Units**

**[February 25, 2011]**

The following policy applies to the construction of all highway improvement projects that will be financed with state or federal funds, constructed by the forces and equipment of a county or other local governmental unit (hereinafter referred to as the "Municipality") and administered by the Wisconsin Department of Transportation, (hereinafter referred to as the "Department").

This policy applies to all Local Force Account (LFA) agreements, which are referred to as "Force Account Agreements". The work under this policy shall be constructed to the same specifications as if the project was let to contract.

This policy is intended to allow more effective use of the existing forces and equipment of a Municipality. It is intended to discourage the expansion of the Municipality forces and equipment beyond the level needed for normal maintenance and traffic services. It is also intended to promote the concept of a competitive private highway construction industry.

**Allowable Types of Work**

The types of work which may be approved for construction by Municipality forces and equipment will be those types of work for which the Municipality has the appropriate equipment and properly trained personnel and which it has been the Municipality's normal practice to perform. Such types of work will normally include, but not be limited to, grading, installation of culverts and structural plate pipe, constructing structures less than about 20 feet in length, production and placement of sub-base and base course, placement of asphalt or concrete pavements, concrete pavement repair, pavement marking, signing, traffic signal installation, installation of beam guard or other safety devices, placement of erosion control items and landscaping.

Urban type construction will only be permitted when the quantity of any such work is a minor part of the total project or is incidental to major items of the project or is of a size and scope that would not be attractive to private industry.

Work in the State Highway Rehabilitation-Maintenance (SHRM) program is also eligible to be constructed by Municipality forces (See Chapter 13 of the Highway Maintenance Manual for further discussion).

**Contracted Work (LFA Federal Funded)**

Municipalities that wish to perform work with their own forces on their own system using federal funds must be "adequately staffed and suitably equipped" to undertake and satisfactorily complete the work. "Adequately staffed" means that all work must be completed by the municipality itself (unless let via a competitive contract). If the municipality requires assistance from a contractor, a municipality may contract separately for services/work from private industry to do a portion of a project. It is recommended that any materials necessary but not supplied by the municipality be part of the state let project that needs services/work. This will help the municipality achieve the minimum let contract size. The resultant contract would not be part of the LFA. The LFA work must only be that work which the municipality is capable of doing themselves. Services/work that are needed to complement the LFA work could be procured using one of two methods:

- Contracts obtained using a state letting (meeting Federal-aid contracting requirements)
  - This could be one contract for each project or one contract that would combine work from a group of projects
  - The threshold for these contracts is a minimum of \$50,000.
- Contracts obtained using a local letting and 100% locally funded
  - Locally let, locally funded contract work does not need to follow Federal-aid contracting requirements

**Prequalification (LFA Federal Funded)**

In order to be eligible for state or federal funding to perform design or construction work using municipality forces and equipment, a municipality must be "adequately staffed and suitably equipped" to do the work. "Adequately staffed and suitably equipped" applies only to work being done under the LFA portion of the project. While this does not mean all work under the LFA must be done with municipal employees and equipment, it is expected that the municipality is capable of doing the primary work with only some limited work accomplished by renting specialized equipment.

"Prequalification System", similar in concept to the one used for private contractors, will be used to judge

whether a municipality is "adequately staffed and suitably equipped". A number of work type categories have been established and individual municipalities will be judged whether they are eligible to do work within one or more of these categories. The categories and their definitions are:

**Engineering – Design**

The development of project plans and specifications including following the appropriate statutory requirements, policy, procedural requirements, and guidance for the improvement of county or municipal street/highway systems for which federal-aid highway funds may be used.

**Construction Inspection**

Only local units that are prequalified may provide inspection staff for an LFA. The inspection staff would be under the responsible charge of the project leader designated by the department.

**Grading and Gravel**

The construction of earthwork and placement of gravel/crushed stone, including grading, subbase, crushed aggregate base course, shoulder or surface courses, drainage structures, and other associated construction.

**Asphalt Surfacing**

The construction of all types of asphaltic surface courses to include plant mix, road mix, and the application of bitumen, and other associated construction.

**Concrete Surfacing**

The construction of the Portland cement concrete base or pavement, and other associated construction.

**Structures**

The construction of masonry, steel, or timber bridges, viaducts, culverts, railroad bridges, and other associated construction, including approaches thereto.

**Electrical Construction**

Work involving trenching and underground duct work, placing electrical cable on and/or under the ground, placing light bases and fixtures, furnishing and installing visual and instrument aids to navigation (i.e. VASI, REIL, VOR, NDB, ILS/ALS, etc.), to include generators, regulators, transformers and related equipment as required.

**Incidental Construction**

Work involving sidewalks, curb and gutter, small concrete structures, storm sewers, guard rail, fencing, pavement marking, furnishing and planting of plant materials, cutting and spraying weeds, signing and other work of a minor or incidental character.

The presence of qualified individuals will determine if a Municipality is qualified to perform the design engineering and construction inspection. This would be documented on the Prequalification Form.

To perform Design Engineering, the Municipality must have at least one staff person that is registered as a professional engineer. Holding a current Certificate of Authorization to practice professional engineering in the state of Wisconsin (per. s.s. 443.08) is satisfactory evidence of professional engineering registration. The Municipality would be responsible for the development of project plans and specifications including following the appropriate statutory requirements, policy, procedural requirements, and guidance for the improvement of county or municipal street/highway systems eligible for federal-aid highway funds.

To perform Construction Inspection, the Municipality must have past experience in inspecting the construction work and be certified as part of the Highway Technician Certification Program for inspecting the construction materials. The Municipality would support the WisDOT project leader (or consultant project leader representing WisDOT) who is responsible for and has the delegated authority to obtain work that fulfills the requirements of the agreement. Under direction of the project leader, Municipality staff would supplement the field administration of the agreement, enforce the terms of the agreement, and determine the amount of work performed and materials furnished.

Once prequalified for Design Engineering or Construction Inspection work types, a Municipality would indicate their desire to provide those services on a particular LFA project by submitting a "Letter of Interest" to the department. That letter would state their desire to provide the services, discuss the staff available for the project, detail the staff's experience in either highway design or inspection of the particular type of construction associated with the project, estimate the time each of the staff would be needed, and request approval to provide the services. Region Local Program Project staff would review the "Letter of Interest" to be sure the

correct number of staff are planned to be used, that the staff are available for the correct time, and that the staff are qualified for the work type. If all of these elements were in order, the Municipality would be authorized to provide the requested services.

For the six work types to be constructed under an LFA Agreement, a Municipality must own or control suitable equipment, have staff capable of properly operating the equipment, have financial and organizational ability, and have prior experience in the construction of one or more of the work types. This would be documented in the Prequalification Form. When evaluating the submitted form, Region Local Program Project staff may review the existing inventory of owned equipment and determine the presence of sufficiently trained operators. The term "owned" equipment also applies to Municipality equipment procured under a long term (at least one construction season) lease for use on other projects the local unit undertakes. Jointly owned equipment (where each Municipality has a 50% ownership share) will be considered "owned" by each Municipality. The department will also consider the Municipality's performance on similar projects in the past.

The first two categories (Engineering – Design and Construction Inspection) will be reimbursed under a two-party agreement and will not require a Cost Effectiveness Finding. The Municipality should submit a "Letter of Interest" to begin the approval process for those two types. The remaining six work categories will be reimbursed under an LFA. The Municipality must be prequalified in a specific category to do that type of work. The requirements to be prequalified are listed in form DT2300, Prequalification – Local Force Account Projects.

An approved work type prequalification is valid for three (3) years and, in the case of the latter six work types, must be approved prior to submitting a Cost Effectiveness Finding for a proposed LFA project to the department.

If municipality staffing or equipment is reduced or eliminated from that available when the prequalification status was approved, the municipality will immediately notify the department. The municipality may submit a revised request at any time if their staff or equipment resources in an approved work category increase or if they desire to be prequalified in another work category.

After prequalification, the department will perform periodic site reviews to verify the municipality's continuing capabilities.

### **Cost Effectiveness Finding**

Work may be performed by Municipality forces and equipment in accord with provisions of this policy. Force account agreement requests received by the Department must show that the performance of the work by the Municipality is in the public interest on the basis that:

1. The anticipated cost of labor, equipment and material will be less than that which could be expected to be obtained through the competitive bidding process, and
2. The Municipality is currently qualified to satisfactorily perform the proposed work.

Any request for a LFA agreement over \$25,000 on the Local System shall be submitted for approval to the Region Project Development Section Chief. Any request for an LFA agreement over \$25,000 on the STH system shall be submitted for approval to the Bureau of Technical Services, Materials Management Section Chief. These submittals should be made prior to execution of an agreement by Municipality officials and is to be accompanied by justification under the preceding criteria. It will not be necessary to submit detailed estimates of labor, materials and equipment at this stage.

The final determination to approve or to disapprove any force accounts agreement with a Municipality shall remain with the Administrator of the Division of Transportation System Development. Agreements of \$25,000 or less are covered by a programmatic cost effectiveness finding, therefore, an individual cost effectiveness finding is not required.

Additional Information on Cost Effectiveness Findings can be found in FDM 3-20-12.

### **Equipment**

The purchase of equipment in anticipation of a force account agreement is not considered to be in the best interests of the public. However, the replacement of old or obsolete equipment in order to maintain an inventory of modern construction equipment will not be construed to be expansion.

### **Rental Equipment (LFA Federal Funded)**

On a limited basis, the rental of some specialized equipment may be appropriate as part of a LFA agreement. The overall intent is to assure a municipality is suitably equipped to perform the LFA work. It would not be appropriate to rent a paving machine if the LFA agreement is for paving, but it may be appropriate to rent a pavement marking machine (with operator if necessary) for painting the lines once the paving portion of the

agreement is complete.

Specialized equipment may be rented up to a maximum of \$25,000 or 25% of the agreement amount, whichever is less, for all rental equipment used as part of a LFA agreement.

The maximum amount of allowable rental equipment may be exceeded if a piece of municipality owned equipment breaks down unexpectedly and its timely replacement is needed to keep a project on schedule. The municipality must notify the project leader, in writing, immediately if this occurs.

For LFA (State) - Equipment may be leased to perform minor items of work such as pavement marking, concrete curb and gutter, beam guard installation, etc. The leased equipment may include an equipment operator. Equipment may also be leased to perform larger items of specialized work, such as milling machines, pulverizing and relaying machines, asphalt paving machines, etc. Again, the cost of an operator may be included in the leased equipment item.

### **Excluded Work**

The statewide, region and individual agreement limits shown below pertain only to labor, equipment and materials provided by the municipality; i.e., only to labor provided by employees on the Municipality payroll and to equipment and natural materials owned and provided by the Municipality. They also apply only to that portion of any manufactured materials (e.g. asphaltic concrete) that the Municipality produces with its own labor, equipment and natural materials. For LFA (Federal Funded) the cost of purchased materials and limited rental of specialized equipment (up to a maximum of \$25,000 or 25% of the agreement amount, whichever is less) will be excluded prior to determining the cost to be applied toward the statewide, region and individual agreement limits. For LFA (State Funded) the cost of purchased materials and supplies, and leased equipment will be excluded prior to determining the cost to be applied toward the statewide, region and individual agreement limits. [FDM 3-20-12](#) and [FDM 19-25-5](#) describe how excluded costs are to be shown in the agreement. It is the responsibility of the Municipality to identify excluded costs in the agreement documents.

The cost of work performed by the Municipality should be at least 30% of the total value of the work in the agreement. Stated another way, the value of the excluded work should be no greater than 70% of the total cost of the labor, equipment and materials used in the project. For instance, if the cost of an agreement is \$900,000 then at least \$270,000 of the work should be provided directly by the Municipality. While excluded costs for individual force account agreements may be at or near the 70% mark, on a program basis they should be well below that. Due to the nature of some LFA agreements (i.e. a higher proportion of resurfacing work) Municipalities may not be as well staffed and equipped to perform the work themselves, therefore; some individual agreements may exceed the 70% limitation; however, the proportion of excluded work in the statewide and individual region programs should be less than 70%.

For LFA (Federal Funded), purchased materials and limited rental equipment, including materials and equipment acquired under on-going agreements for delivery or performance, should be competitively bid whenever possible. If not possible, they may be based on three price quotations instead. If it is impossible to obtain three quotations, a minimum of two quotations and an explanation as to why a third is not available will suffice.

For LFA (State Funded), purchased materials and supplies and leased equipment, including materials and services acquired under on-going contracts for delivery or performance, should be competitively bid whenever possible. If not possible, they may be based on three price quotations instead. If it is impossible to obtain three quotations, a minimum of one quotation and an explanation as to why more are not available will suffice.

### **Statewide Limitation of Force Account Agreements**

The statewide force account agreement limit is \$9,000,000 annually for LFA agreements on the local system and \$3,000,000 annually for LFA agreements on the STH system.

Regions may include force account agreement work in their total program (state and local) up to the limits noted below.

### **Region Limitations on Force Account Agreements**

The \$12,000,000 statewide limitation on force account agreements will be distributed among the regions in the following guideline amounts. The \$3,000,000 distribution for LFA agreements on the STH system is based on a combination of rural and urban STH lane miles in each region, excluding connecting highways. The \$9,000,000 distribution for LFA's on the local system is based on a combination of lane miles of rural and urban County Trunk Federal Aid highways in each region.

LFAs ON THE STH SYSTEM	
Region	
NW	697,000
NC	583,000
NE	435,000
SE	449,000
SW	836,000
<b>Total</b>	<b>3,000,000</b>

LFAs ON THE LOCAL SYSTEM	
Region	
NW	2,535,000
NC	1,973,000
NE	1,440,000
SE	964,000
SW	2,088,000
<b>Total</b>	<b>9,000,000</b>

The department may adjust the region allocations during the year as events occur and as the department may determine such adjustments to be in the public interest, but the annual statewide limits will not be exceeded. Authority will not be transferred between agreement types.

The BTS Chief of Materials Management Section is authorized to distribute up the region guideline amount (for LFA's on the state system) and the Region Chief of Project Development is authorized to allocate up to the region guideline amount (for LFA's on the local system) in a manner of his or her choosing. The region guideline amount may not be exceeded without a request from the region with supporting justification being sent to and approved by the Director of the Bureau of Project Development (on the Local System) or the Director of the Bureau of Technical Services (on the STH System). Execution of the force account agreement by Municipality officials is not to precede action on such adjustment to the region limitations.

The department will review the distribution of work by category and the total cost on a periodic basis. Each fiscal year will be reviewed four times as follows: October 1, prior to start of FY, April 1 prior to start of FY, July 1 at start of FY, January 15 during the FY. The purpose of these reviews will be to adjust the distribution of authority for that fiscal year if needed. Neither exceeding the region limitation nor failure to fully utilize the guideline amount in any single fiscal year will change the region allocation in any subsequent fiscal year.

An Excel spreadsheet has been developed for monitoring the distribution of LFA (local) work by regions. Contact the Region Local Project Manager for copies of the spreadsheet.

#### Individual Agreement Limitations

The total value of labor, equipment and materials (provided by both the Municipality and excluded costs) for an individual LFA agreement may not exceed \$1,000,000 unless a request to exceed this agreement limitation, together with justification, is submitted to and approved by the Director, Bureau of Project Development for LFA agreements on the Local System and by the Director, Bureau of Technical Services for LFA agreements on STH Systems. Execution of the force account agreement by the Municipality officials is not to precede action on such exception to individual agreement limitations. Exceptions are expected to be very infrequent and will be approved only in the most unusual situations. Approval of an exception also constitutes approval of the Cost Effectiveness Finding if a comparison to let prices is included.

#### Responsibility for Agreement Routing, Approval and Execution

Agreement Type	Responsible Organizations
LFA Agreements on the Local System (including connecting highways)	Region to Bureau of Project Development, Proposal Management Section
LFA Agreements on the STH System	Region to Bureau of Technical Services, Materials Management Section
LFA Agreements < \$5,000	Region

Chapter 13 of the Highway Maintenance Manual will be followed when preparing LFA agreements on the STH System that use State Highway Rehabilitation – Maintenance (SHRM) money.

Region Systems Planning and Operations Section should be notified before PS&Es are completed and sent to the Bureau of Project Development or Bureau of Technical Services for agreement execution.

#### Cost Analysis

All LFA agreements shall be accompanied by a detailed, realistic final cost estimate (FDM 19-25-5), which shall be supported and determined by an analysis based upon the materials, equipment, and amount of labor by classification that is to be used on each item of work. Estimates for LFA's funded by SHRM need not be detailed provided that there is historical data for the county performing recent projects containing comparable items of work by which the materials, labor and equipment may be estimated. In the event no such data exists for WisDOT agreements, historical data for a county's own work may be used. If that also is not available the normal process for estimating should be followed. Payment for work performed will be based upon the actual

costs incurred in the performance of the work, except that reimbursement of incurred costs will be limited to the agreement estimated total cost unless supported and authorized by a change order, approved prior to the performance of the work. Excluded costs such as purchased materials, supplies, and limited specialized equipment rental shall be identified.

**Borrow Pits**

Gravel pits, quarries for base course, and borrow pits shall be located and the method of loading and hauling determined prior to execution of the force account agreement by Municipality officials. Any subsequent changes in location for pits and quarries must be reviewed and a new cost analysis prepared to support any proposed contract change order.

**Annual Report**

Each year in August, the Bureau of Project Development and the Bureau of Technical Services will prepare a summary of expenditures of all force account agreement activity for the previous fiscal year.

**Policy Effective Date**

The effective date of this policy is February 25, 2011.

### **SUMMARY GUIDELINES FOR FORCE ACCOUNT AGREEMENTS**

Force account agreements are a sensitive matter and need to be critically evaluated. Following is a brief outline of the philosophy/policy governing all agreements:

1. Generally, work should be let. The statutes allow limited use of force account agreements.
2. Force account agreements are appropriate when work is small, scattered, and inefficient for letting.
3. Work involved in any force account agreement should meet the following criteria.
  - a. Should match the capabilities of the Municipality.
  - b. Shall not include work that needs to be purchased or leased from others (applies only to LFA Federal Funded).
  - c. Cannot result in hiring of additional staff or purchasing of additional equipment.
4. Force account agreements must be cost effective compared to the "let contract" alternative.
5. Projects should not be divided to avoid the \$1,000,000 limit. This includes:
  - a. "Layering" - Doing grading one year and surfacing another in order to stay under the limits, when in fact the total project is actually well in excess of the limits.
  - b. "Segmenting" – Doing a short segment each year at an amount near the dollar limits when the total project is clearly in excess of the guidelines.