

## 7. INFLUENCE OF FEDERAL FUNDING ON PROJECT COST

Federal Funding results in additional Administrative Overhead by the Grantee or Owner and additional Construction Cost by the Davis Bacon (Labor Wages) Act. In the terms and conditions of the grant to the grantee the Administrative Reports, etc. are defined. For the Construction Cost, it must be clear in the Contract Documents that Federal Funds are involved and the Davis Bacon Act will prevail. The Davis Bacon Act defines for the Contractor the required reporting, record keeping, wage rates and labor burden, holidays, etc. to be paid.

Davis Bacon rates are most often called "Prevailing Rates". In most major cities of the United States the prevailing rate is derived from the "union" base wage rate, however the Davis Bacon rate is not the union rate in its entirety. The Davis Bacon rate includes all of the payroll taxes, but all or a portion of the union benefit package is not mandatory. The determination is made by the U.S. Secretary of Labor and is issued by state and by directive. The decision is listed as follows:

AR-94-4, The Letters for the State, Year and Quarter.

When the decision is reached a statement is made that the new decision supersedes an older decision and the new decision is listed.

If there is no union the prevailing wage rate will be based on the current rate prevailing in the survey area. Certified payroll records must be kept by the Contractor for inspection by the Labor Department.

In most right to work states the Davis Bacon rates will increase the cost of construction significantly. In a recent survey Saylor Cost Guidelines found the Davis Bacon rates to be 77% more costly than merit shop rates in the same jurisdiction. Formulas for adjusting the price of construction can be complicated but for purposes of this study the following has been found to be effective:

Material is "M"

Labor is "L"

Direct Cost is "DC"

M = 44% of the Direct Cost of Construction.

L = 56% of the Direct Cost of Construction.

Inexperience Factor = 1.5

### MERIT SHOP

Total Direct Cost	\$1,000,000
General Conditions, O.H., Profit & Bonds, 16%	<u>160,000</u>
Construction Cost	\$1,160,000
M = 440,000	
L = <u>560,000</u>	
DC = 1,000,000	

DAVIS BACON RATES may be adjusted as follows:

M =	440,000
L = $\frac{560,000 \times 1.77}{1.5}$	660,800
Direct cost =	<u>1,100,800</u>
Genl. Contr., O.H., Profit, Bonds, 16%	<u>176,128</u>
Construction Cost =	1,276,928

Increase due to Davis Bacon:

<u>Davis Bacon Project 1,276,928</u>	
Merit Shop Project 1,160,000	= 1.101

### Metric Sizing

Federal regulations mandate the phased adoption of metric dimensioning and sizing of buildings and building components (Metric Conversion Act 15 US Code 205 and metric implementation executive order 12770). The construction industry has not converted to metric standards and there is little indication that the conversion will take place anytime soon. Some Federal agencies are beginning to require their projects to be done using metric standards. Currently this is accomplished by converting english units to metric and in some cases using both systems on construction documents. There appears to be no uniformity among federal agencies on this issue. The potential exists that projects using Federal Funds will be required to be done in metric measure and sizing.

Higher design and construction cost can be expected for such projects until metric units are widely implemented in the construction industry. The magnitude of the increased cost is difficult to determine. The largest component being labor and inefficiency due to lack of familiarity with the metric system. Domestic manufacturers have not sized their components using metric units and some degree of development and perhaps retooling is required for them to do so.

When federal funding is anticipated a determination should be obtained concerning metric requirements and the extent to which the project is required to comply. The increased cost will affect both professional fees for design and construction cost. The amount will vary between 1% and 10% depending on timing and degree of compliance.