

### 3.1 DB70

1 **Department:** Tennessee Higher Education Commission  
**Institution:** University of Memphis  
**Project:** Campus-Wide Boilers & Hot Water Pipes Repair Phase 2  
**City/County:** Memphis / Shelby

2 **Fiscal Year:** 2020 / 2021

3	<input type="checkbox"/> Capital Outlay	<b>New</b>		<b>Reno/Maint</b>	1
	<input checked="" type="checkbox"/> Capital Maintenance		0 Gross Sq.Ft.		0
	<input type="checkbox"/> Disclosure		0 Net Sq.Ft.		0
	<input checked="" type="checkbox"/> Designer Required		0.00 Cost/Sq.Ft.		0.00

#### 4 Project Description:

Funds are provided for repair and update to building heating systems campus-wide and all related work.

5	<b>Total Project</b>	<b>This Request</b>	Estimated Building Construction Cost:	0
	1,950,000	1,950,000	Building Construction	
	0	0	Site & Utilities	
	0	0	Built-in Equipment	
	1,950,000	1,950,000	<b>Bid Target</b>	
	200,000	200,000	Contingency:	10.26 10.26 percent
	2,150,000	2,150,000	<b>MACC</b> (Maximum Allowable Construction Cost)	181,502.00
	181,502	181,502	Fee:	35/LogP-1.15= 8.44197193 <b>Renovation</b>
	0	0	Movable Equipment	
	100,000	100,000	first other	commissioning
	0	0	second other	
	68,498	68,498	Administration & Miscellaneous	
	2,500,000	2,500,000	<b>Total Cost</b>	

#### 6 Funding Request:

2,500,000

#### THIS REQUEST

2,500,000

STATE funds

0 FEDERAL funds

0 Local and Institutional Funds

#### 7 Previous SBC Approved Funding:

already approved for existing SBC project	0
plus This Request	2,500,000

fund year

description

0

0

0

0

#### 8 SBC Action:

If an existing project, SBC Project No.:

NA

#### 9 Designer:

NA

## 3.2 Project Support Documentation Sheet 1

Institution: University of Memphis

Project: Campus-Wide Boilers & Hot Water Pipes Repair Phase 2

### A. Architectural Program Scope

Install high efficient boilers in existing buildings in program to eliminate energy wasting underground steam lines. Buildings affected include Patterson, Wilder, Brister, Administration, Jones, Manning, Scates, Field House, Hayden, Physical Plant, Dunn and Psychology Auditorium. This will allow buildings to operate independently and eliminate high pressure steam.

### B. Evidence of Physical Facility Need

The existing heating and cooling plant steam boilers are non functional, rusted and every winter temporary boilers must be used.

### C. Historical Profile

The last boiler installed in the main heating and cooling plant was brought on-line in 1994.

### D. Summary Results and Date of Physical Facilities Survey

PFIS current rating is for replacement of main heating source systems.

## 3.3 Project Support Documentation Sheet 2

Institution: University of Memphis

Project: Campus-Wide Boilers & Hot Water Pipes Repair Phase

### E. Cost Basis for Construction Estimate and Other Costs

This is part of a phase project approach to install the decentralized boilers and each facility has a different cost. Some buildings are being manifolded together with a small plant to feed hot water to each.

### F. Project Schedule

Complete design for smaller installations one year from funding, and two years from funding for larger complex installations.

### G Campus or Architectural Program Impact

The climate of Memphis requires heating in each building. The underground steam lines leak and rupture each winter causing outages, digging and opening of trenches, and replacement of lines. The existing system is inefficient and troublesome.