

DAMMON ENGINEERING, INC.

dammonengineering.com

CONSULTING

DESIGN

STUDIES

EXPERT WITNESS

554 Old Spanish Trail
Slidell, LA 70458

P.O. Box 2830
Slidell, LA 70459

985-649-5832
FAX 985-641-5950

March 22, 2010

Mr. Kirk Whitfield
Whitfield's A/C & Heating
63388 Old Military Road
Pearl River, LA 70452

RE: Pearl River Central High School
7441 Highway 11
Carriere, MS

Dear Mr. Whitfield,

It was a pleasure to meet with you on Monday at the PRC Gymnasium, thank you for considering our services.

After visiting the site and observing the existing conditions, it has been determined that further investigation of the project will be needed to confirm the capacity of the existing concrete T-beams that are supporting the roof under consideration. There are too many unknowns, including the absence of construction documents, to make a determination after visual inspection alone. The main reason for this is the unknown amount and placement of the reinforcing steel within the concrete T-beams.

Below is a list of possible solutions:

1. Obtain the services of an inspection company with concrete X-ray capabilities. Dammon Engineering recommends that this course of action be considered first as the beams may be adequate to support the load of the new HVAC units. Be advised that Dammon Engineering has contacted "Southern Inspections" of New Orleans (504-347-1752 Contact: Rennis Branson) and his estimate for these services is \$2,100.00.
2. If it is determined that the existing beams are not adequate for the new loads, or should PRC not consider the services of an X-ray tech, a steel load distribution system would have to be designed to transfer the load of the new HVAC units to one of the following structural elements:
 - a) Load transfer to the foundation. Ideally, the system would consist of steel W-shapes directly under the beams supporting the units, with columns extending to the foundation below. Inspection of the foundation would be needed to ensure an adequate concrete footing exists at these locations.

- b) Load transfer above the roof. The system would utilize two W-shapes (spanning the entire width of the roof ~ 22') in the direction perpendicular to the existing beams, and an adequate built-up connection to wall supports.

- c) Dividing the span of the existing concrete T-beams by utilizing the existing partition wall that separates the classroom from the staff office space. This configuration would consist of a heavy W-shape directly under the existing beams spanning the width of the room, with approximately 4 columns directly under the beam that would extend to the foundation.

Without performing a design for the above scenarios, Dammon Engineering cannot provide exact materials sizes or configurations for the purpose of cost estimating. Please contact me with any questions or concerns regarding this project.

Sincerely,

Brandon Nowakowski
Dammon Engineering, Inc.