

Conference Report



Project No.: 14-0005
Project: **Capitan New Secondary School**
Date: October 9, 2014
Place: Capitan Board Room

Attending: See sign in sheet
By: Shannon Parks

Copies To: All attendees, design team

Issue Date: October 16, 2014

Discussion Items:

1. Project update:
 - a. Schematic Design Book has been submitted. Shirley will post it to the school web site. The School board will approve October 20, 2014.
 - b. The LCCA is complete and was reviewed later in the meeting.
 - c. The Geotechnical report is complete. There is a perched water table at 25'. Recommendations include cased drilled piers to depths of 30' and socketed into the bedrock 5' and installation of grade beams. Terracon approved auger cast piers as an accepted deep foundation system.
 - d. Dennis Engineering did not perform a hydraulic analysis for the Village water line design. This is needed to confirm that required flows are available for the fire suppression system and demand needs of the New Secondary School and future phases of work. The design team is working with Western States to determine available flow. Insufficient flow would require a booster pump and supply tank.
 - e. The design team met with Jerry and PSFA prior to the meeting to work on the Owner Project Requirements (OPR) Document.
2. The LCCA results were discussed in detail:

The four (4) alternative systems consist of:

- 1) Four Pipe Fan Coil with Energy Recovery Unit, Chilled Water & Hot Water Heating
- 2) Active Chilled Beams with Chilled Water Cooling, Hot Water Heating and Energy Recovery Unit
- 3) Ground Coupled Heat Pump (GCHP) system with Energy Recovery Unit
- 4) Variable Refrigerant Volume - Heat Recovery with Airside Energy Recovery Unit.

Alt #	First Cost (\$/ft ²)	Total First Cost (\$)	First Year Utility Cost (\$)	First Year Maint. Cost (\$)	Total First Year Alt. Cost (\$)	Total Life Cycle Cost (\$)
1	33.10	765,254	20,071	1,757	787,082	1,954,414
2	44.00	1,017,256	20,678	1,757	1,039,692	2,227,320
3	30.00	693,584	18,625	1,757	713,966	1,829,050
4	28.75	664,684	19,253	1,757	685,694	1,813,884

- a. The committee ruled out options 2 and 4 and is deciding between a 4-pipe fan coil system and a ground coupled heat pump system (GCHP).
- b. There are concerns about the GCHP system because of the issues Ruidoso Middle School is experiencing with the system. Ed shared what Bridgers & Paxton shared with him about how that system is not a good reference. The system was installed by the same people that designed it with no oversight. They are responsible for the system in Alamogordo which is also experiencing issues. It utilizes one large pump versus individual heat pumps for each space.

- c. One committee member asked about the possibility of a PV array. Ovidiu stated that typically the payback period is 10+ years. Roof installations will also result in several roof penetrations. Perhaps a small installation serving as a shade canopy could be used as a teaching tool. HB to work with Matt Higgins to learn about the return of investment on a PV array and if it makes sense for the New Secondary School.
- d. The measurement and verification system required by PSFA can also serve as a teaching tool by use of monitors and flat screens inside the main entrance or other location with high visibility.
- e. D/P/S provided names and contact information for other districts using the two systems. The delay in a system selection will affect the design schedule.
- 3. The locker discussion was tabled for the next steering committee meeting.
- 4. Playground relocation:
 - a. HB will be providing information from Exerplay showing cost to relocate existing equipment vs cost to install new equipment as well as costs for various surface options. New Equipment has a lead time 8-12 weeks from time of order to arrival of equipment on site.
 - b. The District and steering committee likes the proposed location for the new play area.
- 5. Site design:
 - a. The steering committee liked the proposed site design.
 - b. All discussed access to the field and stadium. The extent of this connection to be included in the first phase will need to be evaluated against the project budget.
 - c. One modification is that the outdoor space south of the media center be able to access the adjacent site by way of stairs and or ramping.
- 6. Building design:
 - a. The steering committee liked the updated building design.
 - b. D/P/S is working with Rocky Mountain Stone to try to determine the type of stone Kimberly Stone's family has and to see if installing it on the New Secondary School is a good application for the material.
 - c. All discussed the possibility of reversing the single story pitched portion so that the main slope is directed to the south. This will reduce the amount of snow, ice, and run off on the north side of the building. D/P/S to investigate if reversing the roof slope could work with the programmatic needs of the interior.
- 7. Next steps:
 - a. The steering committee to vote on an HVAC system recommendation to be presented to the school board on 10/20.
 - b. The next steering committee meeting will be October 27, 2014 at 6pm. The OAC (owner architect contractor) meeting will be held on site in Capitan at 2pm that day and the technology portion of the OPR document will follow.

This report is assumed to be a true and accurate account of this communication unless notice to the contrary is received within 10 calendar days of issue.

End of Report