



Morgan Hill Indoor Recreation Center Morgan Hill, CA



Owner:	City of Morgan Hill
Completion:	2006 estimated
Size:	1 story , 55,000 ft ² including full service kitchen, aerobics and fitness rooms, gym, offices, daycare, lounges, locker rooms, and 10,000 ft ² natatorium.
Architects:	Noll & Tam Architects
Contractors:	TBD
HVAC System Description:	Packaged VAV with HW reheat in most spaces. Packaged VAV single zone in gym. VAV indirect evaporative cooler with heat pipe heat recovery and auxiliary DX in the natatorium.
Taylor Engineering Role:	Full design of HVAC and control systems, energy analysis and optimization, and complete control system commissioning and functional testing.
References:	City of Morgan Hill: Glenn Ritter (glennr@morgan-hill.ca.gov) Noll & Tam Architects: Janet Tam (janet@nollandtam.com)
Notable Features:	<ul style="list-style-type: none"> Detailed energy simulation was used to justify the innovative and highly efficient natatorium HVAC system. The selected system was demonstrated to save \$30,000/year compared to a conventional pool dehumidification system, resulting in a simple payback of 3 years. The selected system also provides more outdoor air to the space than a conventional system, resulting in superior indoor air quality. Detailed modeling was also used to evaluate the potential for condensation on interior surfaces in the natatorium and provide feedback to the architects on envelope design. Costs were contained and aesthetics improved by using fabric ducts in the gym, fitness, and pool areas. Air conditioning units and the pool unit were pre-bid during design in order to contain costs by avoiding “lock spec’ing”.